

Creation of QuizDB

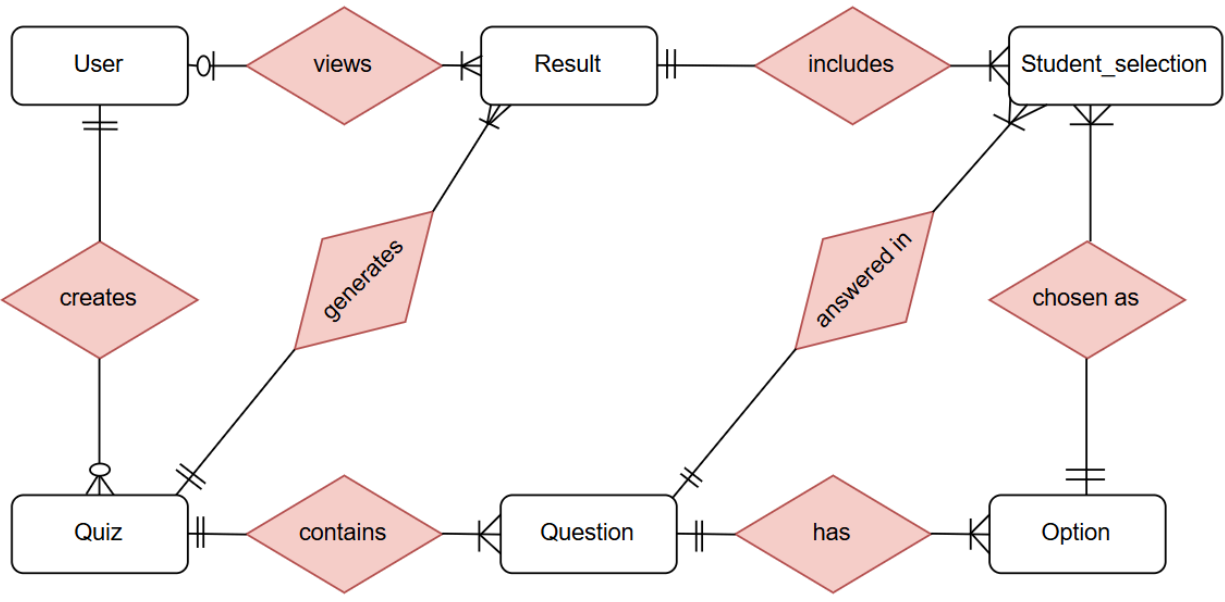
BUSINESS RULES — Online Quiz System

1. A user must be registered in the system before accessing any quiz functionality.
2. Each user must have a defined role as **admin, teacher, or student**.
3. Each user must provide valid credentials (**password**) for secure authentication.
4. A teacher may create one or more quizzes in the system.
5. Each quiz must be created by exactly one teacher.
6. Each quiz must have a specified **time limit** (duration) for completion.
7. A quiz may contain multiple questions.
8. Each question must belong to exactly one quiz.
9. Each question must have one or more answer options.
10. Each question must have **exactly one correct option**.
11. A student must be registered before attempting any quiz.
12. A student may attempt a quiz multiple times.
13. Each quiz attempt must be linked to one student and one quiz.
14. A quiz attempt must have a status (e.g., started or completed).
15. A student must select only one option for each question during an attempt.
16. Each selected answer must correspond to a valid question and option.
17. The system must record all answers submitted by the student.
18. The system must calculate and store the score after quiz completion.
19. A quiz attempt must store the start time and completion time.
20. The system must allow students to view their quiz results after completion.
21. An admin may manage users and monitor quiz activities.

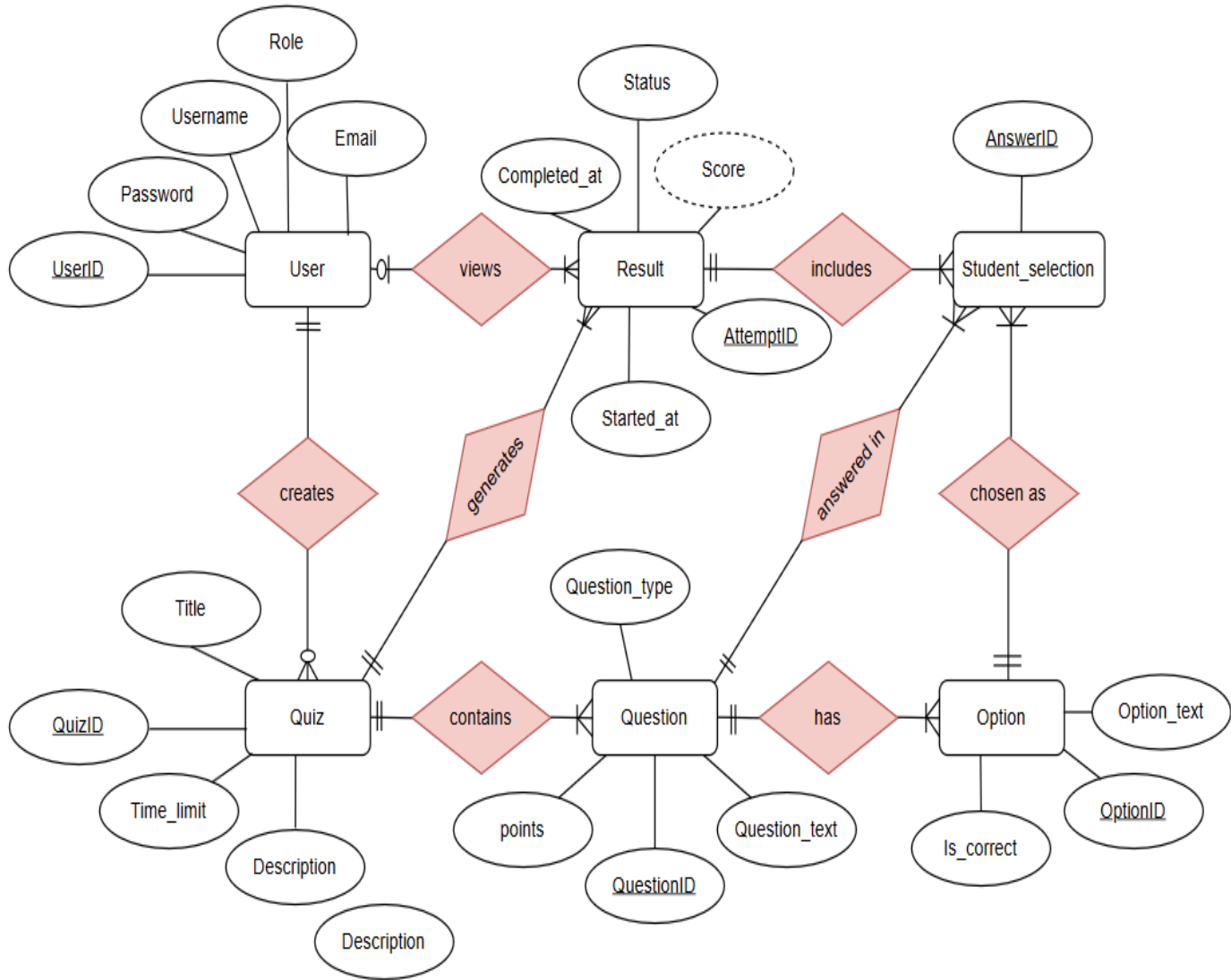
ENTERPRISE DATA MODEL

Entities involved in the enterprise.

- User
- Quiz
- Question
- Option
- Result
- Student_Selection



COMPLETE ER DIAGRAM WITH ATTRIBUTES



TRANSFORMING ER MODEL INTO RELATIONAL SCHEMA

User		
int	<u>UserID</u>	PK
string	Username	
string	Email	
string	Password	
string	Role	

Quiz		
int	<u>QuizID</u>	PK
int	<u>UserID</u>	FK
string	Title	
string	Description	
time	Time_limit	

Question		
int	<u>QuestionID</u>	PK
int	<u>QuizID</u>	FK
string	Question_text	
string	Question_type	
int	Points	

Option		
int	<u>OptionID</u>	PK
int	<u>QuestionID</u>	FK
string	Option_text	
boolean	Is_correct	

Result		
int	<u>QuizID</u>	<u>FK</u>
int	<u>UserID</u>	<u>FK</u>
int	<u>AttemptID</u>	<u>PK</u>
string	Status	
int	Score	
string	Started_at datetime	
string	Completed_at datetime	

Student_selection		
int	<u>OptionID</u>	<u>FK</u>
int	<u>QuestionID</u>	<u>FK</u>
int	<u>AttemptID</u>	<u>FK</u>
int	<u>AnswerID</u>	<u>PK</u>

SQL IMPLEMENTATION

Create Tables

```
CREATE DATABASE QuizDB;  
GO  
USE QuizDB;  
GO
```

1. USER TABLE

```
CREATE TABLE Users (  
    UserID INT NOT NULL PRIMARY KEY,  
    Username VARCHAR(100) NOT NULL,  
    Email VARCHAR(100) UNIQUE,  
    Password VARCHAR(255) NOT NULL,  
    Role VARCHAR(20) CHECK (Role IN ('Admin', 'Teacher', 'Student')),  
    City VARCHAR(50),  
    Contact VARCHAR(15)  
);  
GO
```

2. QUIZ TABLE

```
CREATE TABLE Quiz (  
    QuizID INT NOT NULL PRIMARY KEY,  
    TeacherID INT NOT NULL,  
    Title VARCHAR(200) NOT NULL,  
    Description TEXT,  
    Time_Limit_Mins INT,  
    Category VARCHAR(50),  
    FOREIGN KEY (TeacherID) REFERENCES Users(UserID)  
    ON DELETE NO ACTION ON UPDATE CASCADE  
);  
GO
```

3. QUESTION TABLE

```
CREATE TABLE Question (  
    QuestionID INT NOT NULL PRIMARY KEY,
```

```
QuizID INT NOT NULL,  
Question_Text TEXT NOT NULL,  
Question_Type VARCHAR(50), -- MCQ, True/False  
Points INT DEFAULT 1,  
FOREIGN KEY (QuizID) REFERENCES Quiz(QuizID)  
    ON DELETE CASCADE ON UPDATE CASCADE  
);  
GO
```

4. OPTION TABLE

```
CREATE TABLE Question_Option (  
    OptionID INT NOT NULL PRIMARY KEY,  
    QuestionID INT NOT NULL,  
    Option_Text VARCHAR(255) NOT NULL,  
    Is_Correct bit DEFAULT 0,  
    FOREIGN KEY (QuestionID) REFERENCES Question(QuestionID)  
    ON DELETE CASCADE  
);  
GO
```

5. RESULT TABLE (Attempts)

```
CREATE TABLE Result (  
    AttemptID INT NOT NULL PRIMARY KEY,  
    UserID INT NOT NULL, -- Student ID  
    QuizID INT NOT NULL,  
    Score INT,  
    Status VARCHAR(20), -- Completed, In-Progress  
    Started_At DATETIME,  
    Completed_At DATETIME,  
    FOREIGN KEY (UserID) REFERENCES Users(UserID),  
    FOREIGN KEY (QuizID) REFERENCES Quiz(QuizID)  
);  
GO
```

6. STUDENT_SELECTION (Answers marked by student)

```
CREATE TABLE Student_Selection (  

```

```
AnswerID INT NOT NULL PRIMARY KEY,  
AttemptID INT NOT NULL,  
QuestionID INT NOT NULL,  
OptionID INT NOT NULL,  
FOREIGN KEY (AttemptID) REFERENCES Result(AttemptID),  
FOREIGN KEY (QuestionID) REFERENCES Question(QuestionID),  
FOREIGN KEY (OptionID) REFERENCES Question_Option(OptionID)  
);  
GO
```

Insert Values

1. USERS DATA

```
INSERT INTO Users VALUES  
(1, 'Ahmed_Admin', 'admin@quiz.com', 'admin_pass', 'Admin', 'Islamabad', '+92-51-1112223'),  
(2, 'Dr_Zubair', 'zubair@uni.edu', 'teacher123', 'Teacher', 'Lahore', '+92-300-4455667'),  
(3, 'Prof_Sara', 'sara.khan@college.edu', 'prof_pass', 'Teacher', 'Karachi', '+92-321-9988776'),  
(4, 'Ali_Raza', 'ali.raza@gmail.com', 'std101', 'Student', 'Rawalpindi', '+92-333-5566778'),  
(5, 'Hina_Noor', 'hina.noor@yahoo.com', 'std102', 'Student', 'Peshawar', '+92-345-1122334'),  
(6, 'Usman_Khan', 'usman.t@student.com', 'std103', 'Student', 'Faisalabad', '+92-312-6677889'),  
(7, 'Admin_Salman', 'salman.admin@quiz.com', 'pass', 'Admin', 'Islamabad', '03001111111'),  
(8, 'Teacher_Ahmed', 'ahmed.teacher@uni.edu', 'pass', 'Teacher', 'Lahore', '03002222222'),  
(9, 'Teacher_Sania', 'saniam@college.edu', 'pass', 'Teacher', 'Karachi', '03003333333'),  
(10, 'Ali_Ahmed', 'ali.ahmed@gmail.com', 'pass', 'Student', 'Rawalpindi', '03004444444'),  
(11, 'Maria_Khan', 'maria.khan@gmail.com', 'pass', 'Student', 'Peshawar', '03005555555'),  
(12, 'Usman_Tariq', 'usman.tariq@gmail.com', 'pass', 'Student', 'Faisalabad', '03006666666'),  
(13, 'Fatima_Khan', 'fatima.khan@gmail.com', 'pass', 'Student', 'Multan', '03007777777'),  
(14, 'Bilal_Akram', 'bilal.akram@gmail.com', 'pass', 'Student', 'Sialkot', '03008888888'),  
(15, 'Zainab_Ali', 'zainab.ali@gmail.com', 'pass', 'Student', 'Quetta', '03009999999'),  
(16, 'Hamza_Sheikh', 'hamza.sheikh@gmail.com', 'pass', 'Student', 'Hyderabad', '03110000000');  
GO
```

	UserID	Username	Email	Password	Role	City	Contact
1	1	Ahmed_Admin	admin@quiz.com	admin_pass	Admin	Islamabad	+92-51-1112223
2	2	Dr_Zubair	zubair@uni.edu	teacher123	Teacher	Lahore	+92-300-4455667
3	3	Prof_Sara	sara.khan@college.edu	prof_pass	Teacher	Karachi	+92-321-9988776
4	4	Ali_Raza	ali.raza@gmail.com	std101	Student	Rawalpindi	+92-333-5566778
5	5	Hina_Noor	hina.noor@yahoo.com	std102	Student	Peshawar	+92-345-1122334
6	6	Usman_Khan	usman.t@student.com	std103	Student	Faisalabad	+92-312-6677889
7	7	Admin_Salman	salman.admin@quiz.com	pass	Admin	Islamabad	03001111111
8	8	Teacher_Ahmed	ahmed.teacher@uni.edu	pass	Teacher	Lahore	03002222222
9	9	Teacher_Sania	saniam@college.edu	pass	Teacher	Karachi	03003333333
10	10	Ali_Ahmed	ali.ahmed@gmail.com	pass	Student	Rawalpindi	03004444444
11	11	Maria_Khan	maria.khan@gmail.com	pass	Student	Peshawar	03005555555
12	12	Usman_Tariq	usman.tariq@gmail.com	pass	Student	Faisalabad	03006666666
13	13	Fatima_Khan	fatima.khan@gmail.com	pass	Student	Multan	03007777777
14	14	Bilal_Akram	bilal.akram@gmail.com	pass	Student	Sialkot	03008888888
15	15	Zainab_Ali	zainab.ali@gmail.com	pass	Student	Quetta	03009999999
16	16	Hamza_Sheikh	hamza.sheikh@gmail.c...	pass	Student	Hyderabad	03110000000

2. QUIZ DATA

INSERT INTO Quiz VALUES

(101, 2, 'SQL Basics', 'Introduction to SQL queries', 30, 'Computer Science'),
(102, 2, 'Advanced SQL', 'Joins, Indexes, Views', 40, 'Computer Science'),
(103, 3, 'Biology Basics', 'Human body systems', 30, 'Science'),
(104, 3, 'Genetics', 'DNA and inheritance', 35, 'Science'),
(105, 8, 'Database Design', 'Normalization & ERD', 25, 'Computer Science'),
(106, 8, 'Cloud Computing', 'AWS & Azure basics', 20, 'IT'),
(107, 9, 'Human Anatomy', 'Organs and functions', 30, 'Science'),
(108, 9, 'Networking Fundamentals', 'OSI & TCP/IP', 30, 'IT'),
(109, 2, 'Cyber Security', 'Security basics', 25, 'IT'),
(110, 3, 'Microbiology', 'Bacteria & viruses', 30, 'Science'),
(111, 8, 'Data Structures', 'Arrays, Stacks, Queues', 35, 'Computer Science'),
(112, 9, 'Operating Systems', 'Processes & Memory', 30, 'IT'),
(113, 2, 'Web Development', 'HTML, CSS, JS basics', 20, 'IT'),
(114, 3, 'Environmental Science', 'Ecosystems', 25, 'Science'),
(115, 8, 'Artificial Intelligence', 'Intro to AI concepts', 30, 'Computer Science');
GO

	QuizID	TeacherID	Title	Description	Time_Limit_Mins	Category
1	101	2	SQL Basics	Introduction to SQL queries	30	Computer Science
2	102	2	Advanced SQL	Joins, Indexes, Views	40	Computer Science
3	103	3	Biology Basics	Human body systems	30	Science
4	104	3	Genetics	DNA and inheritance	35	Science
5	105	8	Database De...	Normalization & ERD	25	Computer Science
6	106	8	Cloud Compu...	AWS & Azure basics	20	IT
7	107	9	Human Anat...	Organs and functions	30	Science
8	108	9	Networking F...	OSI & TCP/IP	30	IT
9	109	2	Cyber Security	Security basics	25	IT
10	110	3	Microbiology	Bacteria & viruses	30	Science
11	111	8	Data Structur...	Arrays, Stacks, Queues	35	Computer Science
12	112	9	Operating Sy...	Processes & Memory	30	IT
13	113	2	Web Develop...	HTML, CSS, JS basics	20	IT
14	114	3	Environment...	Ecosystems	25	Science
15	115	8	Artificial Intelli...	Intro to AI concepts	30	Computer Science

3. QUESTION DATA

INSERT INTO Question VALUES

-- SQL Basics (101)

(501,101,'What does SQL stand for?','MCQ',5),

(502,101,'Which SQL statement is used to retrieve data?','MCQ',5),

(503,101,'Which clause filters records?','MCQ',5),

(504,101,'Primary keys cannot have NULL values.','True/False',2),

(505,101,'Which command inserts data into a table?','MCQ',5),

-- Advanced SQL (102)

(506,102,'Which JOIN returns all records from both tables?','MCQ',5),

(507,102,'INNER JOIN returns only matching rows.','True/False',2),

(508,102,'Which keyword sorts results?','MCQ',5),

(509,102,'What is the purpose of an index?','MCQ',5),

(510,102,'GROUP BY is used with aggregate functions.','True/False',2),

-- Biology Basics (103)

(511,103,'Which organ pumps blood?','MCQ',5),

(512,103,'Humans have 206 bones.','True/False',2),

(513,103,'Which gas is inhaled during respiration?','MCQ',5),

(514,103,'The brain controls the body.','True/False',2),

(515,103,'Where is DNA located in a cell?','MCQ',5),

-- Genetics (104)

(516,104,'DNA stands for Deoxyribonucleic Acid.','True/False',2),

(517,104,'Genes are found on which structure?','MCQ',5),
(518,104,'What is heredity?','MCQ',5),
(519,104,'Which molecule carries genetic information?','MCQ',5),
(520,104,'Mutation is a change in DNA.','True/False',2),
-- DB Design (105)
(521,105,'Normalization reduces redundancy.','True/False',2),
(522,105,'Which normal form removes repeating groups?','MCQ',5),
(523,105,'ERD stands for?','MCQ',5),
(524,105,'Foreign key links tables.','True/False',2),
(525,105,'Which key uniquely identifies a record?','MCQ',5),
-- Cloud (106)
(526,106,'Cloud computing delivers services over internet.','True/False',2),
(527,106,'Which is a cloud provider?','MCQ',5),
(528,106,'IaaS stands for?','MCQ',5),
(529,106,'Cloud storage is scalable.','True/False',2),
(530,106,'Which model provides software online?','MCQ',5),
-- Anatomy (107)
(531,107,'Largest organ in human body?','MCQ',5),
(532,107,'Heart is part of circulatory system.','True/False',2),
(533,107,'Which organ helps in breathing?','MCQ',5),
-- Networking (108)
(534,108,'OSI model has how many layers?','MCQ',5),
(535,108,'TCP is connection-oriented.','True/False',2),
(536,108,'Which device connects networks?','MCQ',5),
-- Cyber Security (109)
(537,109,'Firewall protects network.','True/False',2),
(538,109,'Which is a type of cyber attack?','MCQ',5),
(539,109,'Strong passwords improve security.','True/False',2),
-- Microbiology (110)
(540,110,'Bacteria are microscopic organisms.','True/False',2),
(541,110,'Which organism causes disease?','MCQ',5),
(542,110,'Viruses need host to survive.','True/False',2),
-- Data Structures (111)
(543,111,'Stack follows LIFO principle.','True/False',2),
(544,111,'Which structure uses FIFO?','MCQ',5),
-- OS (112)

(545,112,'OS manages hardware resources.','True/False',2),
 (546,112,'Which is an operating system?','MCQ',5),
 -- Web Dev (113)
 (547,113,'HTML is used for structure.','True/False',2),
 (548,113,'Which language styles web pages?','MCQ',5),
 -- Environmental (114)
 (549,114,'Ecosystem includes living and non-living things.','True/False',2),
 -- AI (115)
 (550,115,'AI enables machines to learn.','True/False',2);

GO

I skipped the rest questions , because is to lengthy

	QuestionID	QuizID	Question_Text	Question_Type	Points
1	501	101	What does SQL stand for?	MCQ	5
2	502	101	Which SQL statement is used to retrieve data?	MCQ	5
3	503	101	Which clause filters records?	MCQ	5
4	504	101	Primary keys cannot have NULL values.	True/False	2
5	505	101	Which command inserts data into a table?	MCQ	5
6	506	102	Which JOIN returns all records from both tables?	MCQ	5
7	507	102	INNER JOIN returns only matching rows.	True/False	2
8	508	102	Which keyword sorts results?	MCQ	5
9	509	102	What is the purpose of an index?	MCQ	5
10	510	102	GROUP BY is used with aggregate functions.	True/False	2
11	511	103	Which organ pumps blood?	MCQ	5
12	512	103	Humans have 206 bones.	True/False	2
13	513	103	Which gas is inhaled during respiration?	MCQ	5
14	514	103	The brain controls the body.	True/False	2
15	515	103	Where is DNA located in a cell?	MCQ	5
16	516	104	DNA stands for Deoxyribonucleic Acid.	True/False	2
17	517	104	Genes are found on which structure?	MCQ	5
18	518	104	What is heredity?	MCQ	5
19	519	104	Which molecule carries genetic information?	MCQ	5
20	520	104	Mutation is a change in DNA.	True/False	2
21	521	105	Normalization reduces redundancy.	True/False	2
22	522	105	Which normal form removes repeating groups?	MCQ	5
23	523	105	ERD stands for?	MCQ	5
24	524	105	Foreign key links tables.	True/False	2
25	525	105	Which key uniquely identifies a record?	MCQ	5
26	526	106	Cloud computing delivers services over internet.	True/False	2

4. OPTION DATA

INSERT INTO Question_Option VALUES

-- 501

(901,501,'Structured Query Language',1),
(902,501,'Simple Query Language',0),
(903,501,'Sequential Query Logic',0),
(904,501,'Standard Question Language',0),
(905,502,'SELECT',1),(906,502,'INSERT',0),(907,502,'UPDATE',0),(908,502,'DELETE',0),
(909,503,'WHERE',1),(910,503,'ORDER BY',0),(911,503,'GROUP
BY',0),(912,503,'HAVING',0),
(913,504,'True',1),(914,504,'False',0),
(915,505,'INSERT',1),(916,505,'SELECT',0),(917,505,'UPDATE',0),(918,505,'DROP',0),

-- 506–510

(919,506,'FULL JOIN',1),(920,506,'INNER JOIN',0),(921,506,'LEFT JOIN',0),(922,506,'RIGHT
JOIN',0),
(923,507,'True',1),(924,507,'False',0),
(925,508,'ORDER BY',1),(926,508,'GROUP BY',0),(927,508,'WHERE',0),(928,508,'JOIN',0),
(929,509,'Improve query performance',1),(930,509,'Delete records',0),(931,509,'Store
data',0),(932,509,'Create tables',0),
(933,510,'True',1),(934,510,'False',0),

-- 511–515

(935,511,'Heart',1),(936,511,'Lungs',0),(937,511,'Kidney',0),(938,511,'Liver',0),
(939,512,'True',1),(940,512,'False',0),
(941,513,'Oxygen',1),(942,513,'Carbon
Dioxide',0),(943,513,'Nitrogen',0),(944,513,'Hydrogen',0),
(945,514,'True',1),(946,514,'False',0),
(947,515,'Nucleus',1),(948,515,'Cytoplasm',0),(949,515,'Membrane',0),(950,515,'Ribosome',0),

-- 516–520

(951,516,'True',1),(952,516,'False',0),
(953,517,'Chromosomes',1),(954,517,'Cells',0),(955,517,'Proteins',0),(956,517,'Organs',0),
(957,518,'Passing traits from parents',1),(958,518,'Cell
division',0),(959,518,'Mutation',0),(960,518,'Metabolism',0),
(961,519,'DNA',1),(962,519,'RNA',0),(963,519,'Protein',0),(964,519,'Lipid',0),
(965,520,'True',1),(966,520,'False',0),

-- 521–525

(967,521,'True',1),(968,521,'False',0),
(969,522,'First Normal Form',1),(970,522,'Second Normal Form',0),(971,522,'Third Normal
Form',0),(972,522,'BCNF',0),

(973,523,'Entity Relationship Diagram',1),(974,523,'Extended Relational Data',0),(975,523,'Entity Record Data',0),(976,523,'None',0),
(977,524,'True',1),(978,524,'False',0),
(979,525,'Primary Key',1),(980,525,'Foreign Key',0),(981,525,'Candidate Key',0),(982,525,'Composite Key',0),
-- 526–530
(983,526,'True',1),(984,526,'False',0),
(985,527,'AWS',1),(986,527,'Windows',0),(987,527,'Linux',0),(988,527,'Oracle DB',0),
(989,528,'Infrastructure as a Service',1),(990,528,'Internet as a Service',0),(991,528,'Integration as a Service',0),(992,528,'Instance as a Service',0),
(993,529,'True',1),(994,529,'False',0),
(995,530,'SaaS',1),(996,530,'IaaS',0),(997,530,'PaaS',0),(998,530,'DaaS',0),
-- 531–535
(999,531,'Skin',1),(1000,531,'Heart',0),(1001,531,'Brain',0),(1002,531,'Liver',0),
(1003,532,'True',1),(1004,532,'False',0),
(1005,533,'Lungs',1),(1006,533,'Kidney',0),(1007,533,'Liver',0),(1008,533,'Heart',0),
(1009,534,'7',1),(1010,534,'5',0),(1011,534,'6',0),(1012,534,'8',0),
(1013,535,'True',1),(1014,535,'False',0),
-- 536–540
(1015,536,'Router',1),(1016,536,'Switch',0),(1017,536,'Hub',0),(1018,536,'Modem',0),
(1019,537,'True',1),(1020,537,'False',0),
(1021,538,'Phishing',1),(1022,538,'Backup',0),(1023,538,'Encryption',0),(1024,538,'Compression',0),
(1025,539,'True',1),(1026,539,'False',0),
(1027,540,'True',1),(1028,540,'False',0),
-- 541–545
(1029,541,'Bacteria',1),(1030,541,'Plants',0),(1031,541,'Animals',0),(1032,541,'Fungi',0),
(1033,542,'True',1),(1034,542,'False',0),
(1035,543,'True',1),(1036,543,'False',0),
(1037,544,'Queue',1),(1038,544,'Stack',0),(1039,544,'Tree',0),(1040,544,'Graph',0),
(1041,545,'True',1),(1042,545,'False',0),
-- 546–550
(1043,546,'Windows',1),(1044,546,'Chrome',0),(1045,546,'MySQL',0),(1046,546,'Oracle',0),
(1047,547,'True',1),(1048,547,'False',0),
(1049,548,'CSS',1),(1050,548,'HTML',0),(1051,548,'SQL',0),(1052,548,'Python',0),
(1053,549,'True',1),(1054,549,'False',0),

(1055,550,'True',1),(1056,550,'False',0),
GO

	OptionID	QuestionID	Option_Text	Is_Correct
1	901	501	Structured Query Language	1
2	902	501	Simple Query Language	0
3	903	501	Sequential Query Logic	0
4	904	501	Standard Question Language	0
5	905	502	SELECT	1
6	906	502	INSERT	0
7	907	502	UPDATE	0
8	908	502	DELETE	0
9	909	503	WHERE	1
10	910	503	ORDER BY	0
11	911	503	GROUP BY	0
12	912	503	HAVING	0
13	913	504	True	1
14	914	504	False	0
15	915	505	INSERT	1
16	916	505	SELECT	0
17	917	505	UPDATE	0
18	918	505	DROP	0
19	919	506	FULL JOIN	1
20	920	506	INNER JOIN	0
21	921	506	LEFT JOIN	0
22	922	506	RIGHT JOIN	0
23	923	507	True	1
24	924	507	False	0
25	925	508	ORDER BY	1
26	926	508	GROUP BY	0

5. RESULT DATA (Students Attempts)

INSERT INTO Result (AttemptID, UserID, QuizID, Score, Status, Started_At, Completed_At)
VALUES

(2001,4,101,18,'Completed','2026-04-20 10:00:00','2026-04-20 10:25:00'),

(2002,5,101,15,'Completed','2026-04-20 11:00:00','2026-04-20 11:28:00'),

```

(2003,6,101,10,'Completed','2026-04-20 12:00:00','2026-04-20 12:30:00'),
(2010,13,105,19,'Completed','2026-04-21 03:00:00','2026-04-21 03:25:00'),
(2011,14,105,13,'Completed','2026-04-21 04:00:00','2026-04-21 04:20:00'),
(2012,15,106,15,'Completed','2026-04-21 05:00:00','2026-04-21 05:18:00'),
(2013,16,106,9,'Completed','2026-04-21 06:00:00','2026-04-21 06:20:00'),
(2014,4,107,18,'Completed','2026-04-22 09:00:00','2026-04-22 09:30:00'),
(2015,5,108,14,'Completed','2026-04-22 10:00:00','2026-04-22 10:25:00'),
(2016,6,109,16,'Completed','2026-04-22 11:00:00','2026-04-22 11:20:00'),
(2020,10,113,7,'Completed','2026-04-22 03:00:00','2026-04-22 03:15:00'),
(2021,11,114,2,'Completed','2026-04-22 04:00:00','2026-04-22 04:10:00'),
(2022,12,115,NULL,'In-Progress','2026-04-22 05:00:00',NULL);
GO

```

	AttemptID	UserID	QuizID	Score	Status	Started_At	Completed_At
1	2001	4	101	18	Completed	2026-04-20 10:00:00.000	2026-04-20 10:25:00.000
2	2002	5	101	15	Completed	2026-04-20 11:00:00.000	2026-04-20 11:28:00.000
3	2003	6	101	10	Completed	2026-04-20 12:00:00.000	2026-04-20 12:30:00.000
4	2010	13	105	19	Completed	2026-04-21 03:00:00.000	2026-04-21 03:25:00.000
5	2011	14	105	13	Completed	2026-04-21 04:00:00.000	2026-04-21 04:20:00.000
6	2012	15	106	15	Completed	2026-04-21 05:00:00.000	2026-04-21 05:18:00.000
7	2013	16	106	9	Completed	2026-04-21 06:00:00.000	2026-04-21 06:20:00.000
8	2014	4	107	18	Completed	2026-04-22 09:00:00.000	2026-04-22 09:30:00.000
9	2015	5	108	14	Completed	2026-04-22 10:00:00.000	2026-04-22 10:25:00.000
10	2016	6	109	16	Completed	2026-04-22 11:00:00.000	2026-04-22 11:20:00.000
11	2020	10	113	7	Completed	2026-04-22 03:00:00.000	2026-04-22 03:15:00.000
12	2021	11	114	2	Completed	2026-04-22 04:00:00.000	2026-04-22 04:10:00.000
13	2022	12	115	NULL	In-Progre...	2026-04-22 05:00:00.000	NULL

6. STUDENT SELECTION DATA

```

INSERT INTO Student_Selection (AnswerID, AttemptID, QuestionID, OptionID) VALUES

```

```

-- Attempt 2001 (User 4)

```

```

(7001,2001,501,901),

```

```

(7002,2001,502,905),

```

```

(7003,2001,503,909),

```

```

(7004,2001,504,913),

```

```

(7005,2001,505,915),

```

```

-- Attempt 2002 (User 5)

```

```

(7006,2002,501,902),

```

```

(7007,2002,502,905),

```

(7008,2002,503,910),
(7009,2002,504,913),
(7010,2002,505,916),
-- Attempt 2003 (User 6)
(7011,2003,501,901),
(7012,2003,502,906),
(7013,2003,503,909),
(7014,2003,504,914),
(7015,2003,505,915),
-- Attempt 2010 (User 13)
(7046,2010,521,967),
(7047,2010,522,969),
(7048,2010,523,973),
(7049,2010,524,977),
(7050,2010,525,979),
-- Attempt 2011 (User 14)
(7051,2011,521,968),
(7052,2011,522,970),
(7053,2011,523,973),
(7054,2011,524,978),
(7055,2011,525,980),
-- Attempt 2012 (User 15)
(7056,2012,526,983),
(7057,2012,527,985),
(7058,2012,528,989),
(7059,2012,529,993),
(7060,2012,530,995),
-- Attempt 2014 (User 4)
(7066,2014,531,999),
(7067,2014,532,1003),
(7068,2014,533,1005),
-- Attempt 2015 (User 5)
(7069,2015,534,1009),
(7070,2015,535,1013),
(7071,2015,536,1015),
-- Attempt 2022 (User 12)

(7085,2022,550,1055);

GO

	AnswerID	AttemptID	QuestionID	OptionID
1	7001	2001	501	901
2	7002	2001	502	905
3	7003	2001	503	909
4	7004	2001	504	913
5	7005	2001	505	915
6	7006	2002	501	902
7	7007	2002	502	905
8	7008	2002	503	910
9	7009	2002	504	913
10	7010	2002	505	916
11	7011	2003	501	901
12	7012	2003	502	906
13	7013	2003	503	909
14	7014	2003	504	914
15	7015	2003	505	915
16	7046	2010	521	967
17	7047	2010	522	969
18	7048	2010	523	973

HTML CODE FILES

Login.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="login.aspx.vb" Inherits="login"
%>
<!DOCTYPE html>
<html>
<head runat="server">
  <title>Login - Quiz System</title>
  <link href="style.css" rel="stylesheet" />
</head>
```

```

<body>
  <form id="form1" runat="server">
    <h1 class="header">Quiz System Login</h1>
    <div class="form-container">
      <asp:TextBox ID="txtUsername" runat="server" placeholder="Username"
Width="100%"></asp:TextBox>
      <asp:TextBox ID="txtPassword" runat="server" TextMode="Password"
placeholder="Password" Width="100%"></asp:TextBox>
      <asp:Button ID="btnLogin" runat="server" Text="Login" CssClass="btn" Width="61%" />
      <br /><br />
      <asp:Label ID="lblMsg" runat="server" ForeColor="Red"></asp:Label>
    </div>
  </form>
</body>
</html>

```

[login.aspx.vb](#)

```

Imports System.Data.SqlClient
Imports System.Configuration

```

```

Partial Class login
  Inherits System.Web.UI.Page

```

```

  Protected Sub btnLogin_Click(sender As Object, e As EventArgs) Handles btnLogin.Click
    Dim connStr As String =
ConfigurationManager.ConnectionStrings("QuizDBConn").ConnectionString
    Using conn As New SqlConnection(connStr)
      ' Check user role
      Dim query As String = "SELECT UserID, Role FROM Users WHERE Username=@user
AND Password=@pass"
      Dim cmd As New SqlCommand(query, conn)
      cmd.Parameters.AddWithValue("@user", txtUsername.Text.Trim())
      cmd.Parameters.AddWithValue("@pass", txtPassword.Text.Trim())

      conn.Open()
      Dim reader As SqlDataReader = cmd.ExecuteReader()
      If reader.Read() Then
        ' Sessions creation
        Session("UserID") = reader("UserID").ToString()
        Session("Role") = reader("Role").ToString()
        Session("UserName") = txtUsername.Text

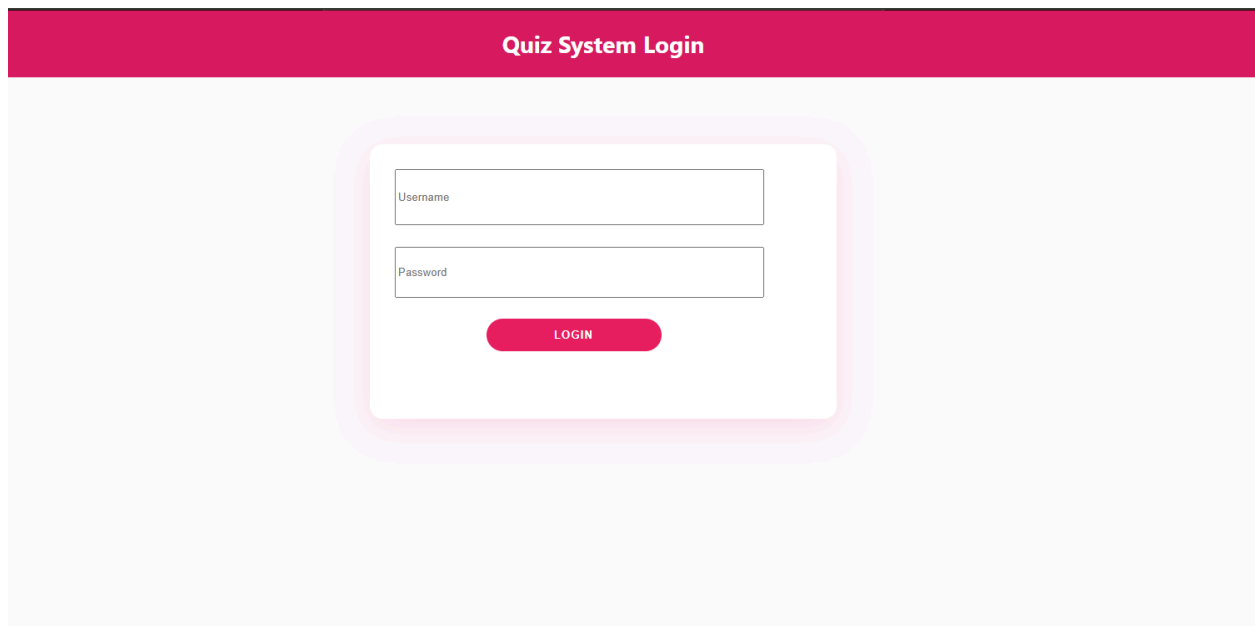
        ' According to role redirect to correct page

```

```

        Select Case reader("Role").ToString()
            Case "Admin" : Response.Redirect("admin.aspx")
            Case "Teacher" : Response.Redirect("teacher.aspx")
            Case "Student" : Response.Redirect("student.aspx")
        End Select
    Else
        lblMsg.Text = "Invalid Username or Password!"
    End If
End Using
End Sub
End Class

```



Admin.aspx

```

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="admin.aspx.vb"
Inherits="admin" %>
<!DOCTYPE html>
<html>
<head runat="server">
    <title>Admin Dashboard | Quiz System</title>
    <link href="style.css" rel="stylesheet" />
</head>
<body>
    <form id="form1" runat="server">
        <div class="navbar">ADMIN CONTROL PANEL</div>

        <div class="sidebar">
            <a href="#" onclick="showSection('users')"> User Management</a>

```

```

<a href="#" onclick="showSection('quizzes')">Quiz Topics</a>
<a href="#" onclick="showSection('teacherStats')">Teacher Activity</a>
<a href="#" onclick="showSection('reports')"> Student Results</a>
<a href="Login.aspx" style="background:#c0392b; margin-top:20px;"> Logout</a>
</div>

<div class="main">
  <asp:Label ID="lblMsg" runat="server" CssClass="alert" Visible="false"></asp:Label>

  <div class="stats-container">
    <div class="card-stat bg-blue"><h3>Students</h3><asp:Label ID="lblTotalStudents"
runat="server" Font-Size="XX-Large">0</asp:Label></div>
    <div class="card-stat bg-green"><h3>Active Quizzes</h3><asp:Label
ID="lblTotalQuizzes" runat="server" Font-Size="XX-Large">0</asp:Label></div>
    <div class="card-stat bg-orange"><h3>Total Attempts</h3><asp:Label
ID="lblTestsTaken" runat="server" Font-Size="XX-Large">0</asp:Label></div>
  </div>

  <div id="quizzes" class="card">
    <h2>Manage Quiz Topics</h2>
    <div class="admin-box">
      <div class="input-group">
        <asp:TextBox ID="newTopicTitle" runat="server" placeholder="Quiz
Title"></asp:TextBox>
        <asp:TextBox ID="newCategory" runat="server"
placeholder="Category"></asp:TextBox>

        <asp:DropDownList ID="ddlTeachers" runat="server">
          <asp:ListItem Value="">-- Assign Teacher --</asp:ListItem>
        </asp:DropDownList>
      </div>
      <div class="input-group">
<asp:TextBox ID="newQLimit" runat="server" placeholder="Question Limit" TextMode="Number"
min="1" step="1"></asp:TextBox>
        <asp:TextBox ID="newDesc" runat="server" placeholder="Short Description"
Width="100%"></asp:TextBox>
      </div>
      <asp:Button ID="btnAddTopic" runat="server" Text="Add & Assign Quiz"
OnClick="btnAddTopic_Click" CssClass="btn" />
    </div>
    <asp:GridView ID="gvQuizzes" runat="server" AutoGenerateColumns="False"
CssClass="report-grid"
    DataKeyNames="QuizID" OnRowDeleting="gvQuizzes_RowDeleting">
    <Columns>

```

```

        <asp:BoundField DataField="Title" HeaderText="Title" />
        <asp:BoundField DataField="Category" HeaderText="Category" />
        <asp:BoundField DataField="TotalQs" HeaderText="Total Qs" />
        <asp:BoundField DataField="TotalPoints" HeaderText="Total Points" />
        <asp:CommandField ShowDeleteButton="True" DeleteText="Remove Quiz"
ControlStyle-ForeColor="Red" />
    </Columns>
</asp:GridView>
</div>

<div id="users" class="card" style="display:none;">
    <h2>Manage Users</h2>
    <div class="admin-box">
        <div class="input-group">
            <asp:TextBox ID="newUname" runat="server"
placeholder="Username"></asp:TextBox>
            <asp:TextBox ID="newPass" runat="server"
placeholder="Password"></asp:TextBox>
            <asp:DropDownList ID="newRole" runat="server">
                <asp:ListItem>Student</asp:ListItem>
                <asp:ListItem>Teacher</asp:ListItem>
            </asp:DropDownList>
        </div>
        <div class="input-group">
            <asp:TextBox ID="newEmail" runat="server"
placeholder="Email"></asp:TextBox>
            <asp:TextBox ID="newCity" runat="server" placeholder="City"></asp:TextBox>
            <asp:TextBox ID="newContact" runat="server"
placeholder="Contact"></asp:TextBox>
            <asp:Button ID="btnAddUser" runat="server" Text="Create User"
OnClick="btnAddUser_Click" CssClass="btn" />
        </div>
    </div>
    <asp:GridView ID="gvUsers" runat="server" AutoGenerateColumns="False"
CssClass="report-grid" DataKeyNames="UserID" OnRowDeleting="gvUsers_RowDeleting">
        <Columns>
            <asp:BoundField DataField="Username" HeaderText="Name" />
            <asp:BoundField DataField="Email" HeaderText="Email" />
            <asp:BoundField DataField="Role" HeaderText="Role" />
            <asp:CommandField ShowDeleteButton="True" DeleteText="Remove" />
        </Columns>
    </asp:GridView>
</div>

```

```

        <div id="teacherStats" class="card" style="display:none;">
            <h2>Teacher Contributions</h2>
            <asp:GridView ID="gvTeacherStats" runat="server" AutoGenerateColumns="True"
CssClass="report-grid"></asp:GridView>
        </div>

        <div id="reports" class="card" style="display:none;">
            <h2>Global Performance Report</h2>
            <asp:GridView ID="gvReports" runat="server" AutoGenerateColumns="False"
CssClass="report-grid">
                <Columns>
                    <asp:BoundField DataField="Username" HeaderText="Student" />
                    <asp:BoundField DataField="Title" HeaderText="Quiz Topic" />
                    <asp:BoundField DataField="Score" HeaderText="Obtained Marks" />
                    <asp:BoundField DataField="TotalMarks" HeaderText="Total Marks" />
                    <asp:BoundField DataField="MaxScore" HeaderText="Highest Attempt" />
                    <asp:BoundField DataField="Status" HeaderText="Result Status" />
                </Columns>
            </asp:GridView>
        </div>

        <script>
            function showSection(id) {
                document.getElementById('users').style.display = 'none';
                document.getElementById('quizzes').style.display = 'none';
                document.getElementById('teacherStats').style.display = 'none';
                document.getElementById('reports').style.display = 'none';
                document.getElementById(id).style.display = 'block';
            }
        </script>
    </form>
</body>
</html>

```

[Admin.aspx.vb](#)

```

Imports System.Data
Imports System.Data.SqlClient
Imports System.Configuration

```

```

Partial Class admin
    Inherits System.Web.UI.Page

```

```
Dim connStr As String =  
ConfigurationManager.ConnectionStrings("QuizDBConn").ConnectionString
```

```
Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load  
    If Session("Role") Is Nothing OrElse Session("Role").ToString() <> "Admin" Then  
        Response.Redirect("Login.aspx")  
    End If  
    lblMsg.Visible = False  
    If Not IsPostBack Then  
        BindTeacherList()  
        RefreshAll()  
    End If  
End Sub
```

```
Sub BindTeacherList()  
    Using conn As New SqlConnection(connStr)  
        Dim cmd As New SqlCommand("SELECT UserID, Username FROM Users WHERE  
Role='Teacher'", conn)  
        conn.Open()  
        ddlTeachers.DataSource = cmd.ExecuteReader()  
        ddlTeachers.DataTextField = "Username"  
        ddlTeachers.DataValueField = "UserID"  
        ddlTeachers.DataBind()  
        ddlTeachers.Items.Insert(0, New ListItem("-- Assign Teacher --", ""))  
    End Using  
End Sub
```

```
Sub RefreshAll()  
    LoadSummary()  
    ' Users  
    LoadGrid("SELECT UserID, Username, Email, Role, City FROM Users WHERE Role <>  
'Admin'", gvUsers)
```

```
    ' Quizzes with Dynamic Points Calculation  
    Dim qryQuizzes As String = "SELECT q.QuizID, q.Title, q.Category, " &  
        "(SELECT COUNT(*) FROM Question WHERE QuizID = q.QuizID) as  
TotalQs, " &  
        "(SELECT ISNULL(SUM(Points), 0) FROM Question WHERE QuizID =  
q.QuizID) as TotalPoints FROM Quiz q"  
    LoadGrid(qryQuizzes, gvQuizzes)
```

```
    ' Teacher Stats  
    Dim qryTeachers As String = "SELECT u.Username, COUNT(qn.QuestionID) as  
Total_Questions_Added " &
```

```

        "FROM Users u LEFT JOIN Quiz qz ON u.UserID = qz.TeacherID " &
        "LEFT JOIN Question qn ON qz.QuizID = qn.QuizID " &
        "WHERE u.Role = 'Teacher' GROUP BY u.Username"
    LoadGrid(qryTeachers, gvTeacherStats)

    ' Results Grid: for Students data and their status
    Dim qryResults As String = "SELECT u.Username, q.Title, r.Score, r.Status, " &
    "(SELECT ISNULL(SUM(Points), 0) FROM Question WHERE QuizID = q.QuizID) as
    TotalMarks, " &
    "(SELECT MAX(Score) FROM Result WHERE UserID = r.UserID AND QuizID = r.QuizID) as
    MaxScore " &
    "FROM Result r " &
    "INNER JOIN Users u ON r.UserID = u.UserID " &
    "INNER JOIN Quiz q ON r.QuizID = q.QuizID " &
    "WHERE u.Role = 'Student' " &
    "ORDER BY r.AttemptID DESC"

    LoadGrid(qryResults, gvReports)
End Sub

' --- QUIZ REMOVAL LOGIC ---
Protected Sub gvQuizzes_RowDeleting(sender As Object, e As GridViewDeleteEventArgs)
    Dim qid As Integer = Convert.ToInt32(gvQuizzes.DataKeys(e.RowIndex).Value)
    Try
        Using conn As New SqlConnection(connStr)
            conn.Open()
            Dim trans = conn.BeginTransaction()
            Try
                Dim cmd1 As New SqlCommand("DELETE FROM Result WHERE QuizID = @qid",
conn, trans)
                cmd1.Parameters.AddWithValue("@qid", qid)
                cmd1.ExecuteNonQuery()

                Dim cmd2 As New SqlCommand("DELETE FROM Question WHERE QuizID =
@qid", conn, trans)
                cmd2.Parameters.AddWithValue("@qid", qid)
                cmd2.ExecuteNonQuery()

                Dim cmd3 As New SqlCommand("DELETE FROM Quiz WHERE QuizID = @qid",
conn, trans)
                cmd3.Parameters.AddWithValue("@qid", qid)
            
```

```

        cmd3.ExecuteNonQuery()

        trans.Commit()
        ShowAlert("Quiz Topic removed successfully!", False)
    Catch ex As Exception
        trans.Rollback()
        ShowAlert("Database Error: " & ex.Message, True)
    End Try
End Using
RefreshAll()
Catch ex As Exception
    ShowAlert("Error removing quiz: " & ex.Message, True)
End Try
End Sub

Protected Sub btnAddUser_Click(sender As Object, e As EventArgs)
    If String.IsNullOrEmpty(newUname.Text) Or
String.IsNullOrEmpty(newEmail.Text) Then
        ShowAlert("Fields cannot be empty!", True) : Return
    End If
    Try
        Using conn As New SqlConnection(connStr)
            Dim sql As String = "INSERT INTO Users (UserID, Username, Email, Password,
Role, City, Contact) " &
                "VALUES ((SELECT ISNULL(MAX(UserID),0)+1 FROM Users), @un,
@em, @ps, @rl, @ct, @con)"
            Dim cmd As New SqlCommand(sql, conn)
            cmd.Parameters.AddWithValue("@un", newUname.Text.Trim())
            cmd.Parameters.AddWithValue("@em", newEmail.Text.Trim())
            cmd.Parameters.AddWithValue("@ps", newPass.Text.Trim())
            cmd.Parameters.AddWithValue("@rl", newRole.SelectedValue)
            cmd.Parameters.AddWithValue("@ct", newCity.Text.Trim())
            cmd.Parameters.AddWithValue("@con", newContact.Text.Trim())
            conn.Open()
            cmd.ExecuteNonQuery()
        End Using
        RefreshAll()
        ShowAlert("User added!", False)
    Catch ex As Exception
        ShowAlert(ex.Message, True)
    End Try
End Sub

Protected Sub btnAddTopic_Click(sender As Object, e As EventArgs)

```

```

' Validation checks
If String.IsNullOrEmpty(newTopicTitle.Text) Or ddlTeachers.SelectedIndex = 0 Then
    ShowAlert("Please fill all details and select teacher!", True) : Return
End If
Try
    Using conn As New SqlConnection(connStr)
        Dim sql As String = "INSERT INTO Quiz (QuizID, TeacherID, Title, Description,
Category, QuestionLimit) " &
            "VALUES ((SELECT ISNULL(MAX(QuizID),0)+1 FROM Quiz), @tid, @t,
@d, @tm, @c, @l)"
        Dim cmd As New SqlCommand(sql, conn)
        cmd.Parameters.AddWithValue("@tid", ddlTeachers.SelectedValue)
        cmd.Parameters.AddWithValue("@t", newTopicTitle.Text.Trim())
        cmd.Parameters.AddWithValue("@d", newDesc.Text.Trim())
        cmd.Parameters.AddWithValue("@c", newCategory.Text.Trim())
        cmd.Parameters.AddWithValue("@l", If(String.IsNullOrEmpty(newQLimit.Text), 10,
newQLimit.Text))
        conn.Open()
        cmd.ExecuteNonQuery()
    End Using
    RefreshAll()
    ShowAlert("Quiz Created!", False)
Catch ex As Exception
    ShowAlert(ex.Message, True)
End Try
End Sub

```

```

Protected Sub gvUsers_RowDeleting(sender As Object, e As GridViewDeleteEventArgs)

```

```

End Sub

```

```

Sub LoadSummary()

```

```

    Using conn As New SqlConnection(connStr)
        conn.Open()
        lblTotalStudents.Text = New SqlCommand("SELECT COUNT(*) FROM Users WHERE
Role='Student'", conn).ExecuteScalar().ToString()
        lblTotalQuizzes.Text = New SqlCommand("SELECT COUNT(*) FROM Quiz",
conn).ExecuteScalar().ToString()
        lblTestsTaken.Text = New SqlCommand("SELECT COUNT(*) FROM [Result]",
conn).ExecuteScalar().ToString()
    End Using
End Sub

```

```

Sub LoadGrid(query As String, gv As GridView)

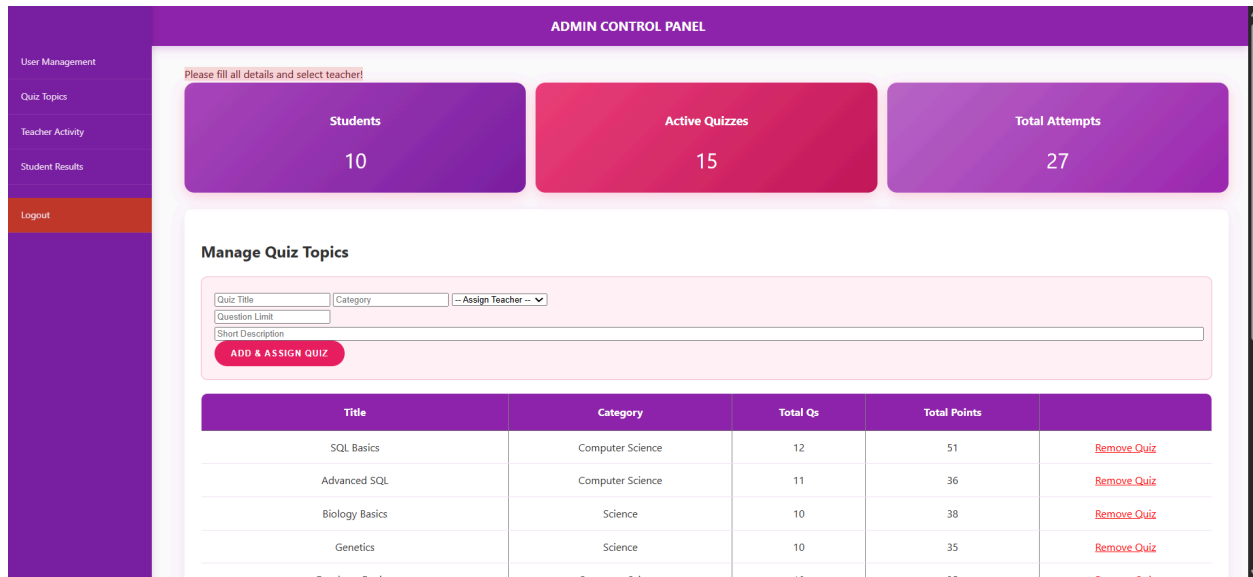
```

```

Using conn As New SqlConnection(connStr)
Dim da As New SqlDataAdapter(query, conn)
Dim dt As New DataTable()
da.Fill(dt)
gv.DataSource = dt
gv.DataBind()
End Using
End Sub

Sub ShowAlert(msg As String, isError As Boolean)
lblMsg.Text = msg
lblMsg.Visible = True
lblMsg.Style("background") = If(isError, "#f8d7da", "#d4edda")
lblMsg.Style("color") = If(isError, "#721c24", "#155724")
End Sub
End Class

```



Student.aspx

```

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="student.aspx.vb"
Inherits="student" %>
<!DOCTYPE html>
<html>
<head runat="server">
<title>Student Dashboard | Quiz System</title>
<link href="style.css" rel="stylesheet" />
</head>
<body>
<form id="form1" runat="server">

```

```
<div class="navbar">STUDENT CONTROL PANEL</div>
```

```
<div class="sidebar">
```

```
  <a href="#" onclick="showSection('quizzes')"> Available Quizzes</a>
```

```
  <a href="#" onclick="showSection('history')"> My Performance</a>
```

```
  <asp:LinkButton ID="btnLogout" runat="server" OnClick="btnLogout_Click"
    style="background:#c0392b; margin-top:30px; display:block; color:white;
text-align:center; padding:15px; text-decoration:none;"> Logout</asp:LinkButton>
</div>
```

```
<div class="main">
```

```
  <div class="welcome-header">
```

```
    <h1>Welcome back, <asp:Label ID="lblUser" runat="server"
Text="Student"></asp:Label>!</h1>
```

```
    <p style="color: #7f8c8d; margin: 5px 0 0 0;">Ready to test your knowledge
today?</p>
```

```
  </div>
```

```
  <div id="quizzes" class="card">
```

```
    <h2 style="color:#2c3e50; margin-top:0;"> Active Quizzes</h2>
```

```
    <asp:GridView ID="gvAvailableQuizzes" runat="server"
AutoGenerateColumns="False" CssClass="report-grid" GridLines="None">
```

```
      <Columns>
```

```
        <asp:BoundField DataField="Title" HeaderText="Topic" />
```

```
        <asp:BoundField DataField="Category" HeaderText="Subject" />
```

```
        <asp:TemplateField HeaderText="Action">
```

```
          <ItemTemplate>
```

```
            <asp:HyperLink ID="lnkStart" runat="server" Text="Start Quiz"
```

```
              NavigateUrl='<%# "TakeQuiz.aspx?qid=" & Eval("QuizID") %>'
CssClass="btn-go"></asp:HyperLink>
```

```
          </ItemTemplate>
```

```
        </asp:TemplateField>
```

```
      </Columns>
```

```
    </asp:GridView>
```

```
  </div>
```

```
  <div id="history" class="card" style="display:none;">
```

```
    <h2 style="color:#2c3e50; margin-top:0;"> My Past Results</h2>
```

```
    <asp:GridView ID="gvMyHistory" runat="server" AutoGenerateColumns="False"
CssClass="report-grid" GridLines="None">
```

```
      <Columns>
```

```
        <asp:BoundField DataField="Title" HeaderText="Quiz Name" />
```

```
        <asp:BoundField DataField="Score" HeaderText="Marks Obtained" />
```

```
        <asp:BoundField DataField="Status" HeaderText="Result" />
```

```

        </Columns>
    </asp:GridView>
</div>
</div>

<script>
    function showSection(id) {

        document.getElementById('quizzes').style.display = 'none';
        document.getElementById('history').style.display = 'none';
        document.getElementById(id).style.display = 'block';
    }
</script>
</form>
</body>
</html>

```

[Student.aspx.vb](#)

```

Imports System.Data
Imports System.Data.SqlClient
Imports System.Configuration

```

```

Partial Class student
    Inherits System.Web.UI.Page

```

```

    Dim connStr As String =
    ConfigurationManager.ConnectionStrings("QuizDBConn").ConnectionString

```

```

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
    ' 1. Security Check
    If Session("UserID") Is Nothing OrElse Session("Role").ToString() <> "Student" Then
        Response.Redirect("Login.aspx")
    End If

    If Not IsPostBack Then
        lblUser.Text = Session("UserName").ToString()
        LoadData()
    End If
End Sub

```

```

Sub LoadData()
    Dim uid As Integer = Convert.ToInt32(Session("UserID"))

```

Using conn As New SqlConnection(connStr)

```
Dim qryQuizzes As String = "SELECT QuizID, Title, Category, Time_Limit_Mins FROM  
Quiz"
```

```
Dim da1 As New SqlDataAdapter(qryQuizzes, conn)
```

```
Dim dt1 As New DataTable()
```

```
da1.Fill(dt1)
```

```
gvAvailableQuizzes.DataSource = dt1
```

```
gvAvailableQuizzes.DataBind()
```

```
Dim qryHistory As String = "SELECT q.Title, r.Score, r.Status FROM Result r " &  
"JOIN Quiz q ON r.QuizID = q.QuizID " &  
"WHERE r.UserID = @uid ORDER BY r.AttemptID DESC"
```

```
Dim cmd As New SqlCommand(qryHistory, conn)
```

```
cmd.Parameters.AddWithValue("@uid", uid)
```

```
Dim da2 As New SqlDataAdapter(cmd)
```

```
Dim dt2 As New DataTable()
```

```
da2.Fill(dt2)
```

```
gvMyHistory.DataSource = dt2
```

```
gvMyHistory.DataBind()
```

```
End Using
```

```
End Sub
```

```
Protected Sub btnLogout_Click(sender As Object, e As EventArgs)
```

```
Session.Abandon()
```

```
Response.Redirect("Login.aspx")
```

```
End Sub
```

```
End Class
```

The screenshot displays a web application interface for a student control panel. The header is purple and contains the text "STUDENT CONTROL PANEL". On the left, there is a vertical navigation menu with four items: "Available Quizzes", "My Performance", "Logout", and a red "Logout" button. The main content area is white and features a welcome message: "Welcome back, Hina_Noor!" followed by "Ready to test your knowledge today?". Below this is a section titled "Active Quizzes" containing a table with three columns: "Topic", "Subject", and "Action". Each row in the table lists a topic and subject, with a "Start Quiz" button in the action column.

Topic	Subject	Action
SQL Basics	Computer Science	Start Quiz
Advanced SQL	Computer Science	Start Quiz
Biology Basics	Science	Start Quiz
Genetics	Science	Start Quiz
Database Design	Computer Science	Start Quiz
Cloud Computing	IT	Start Quiz
Human Anatomy	Science	Start Quiz
Networking Fundamentals	IT	Start Quiz
Cyber Security	IT	Start Quiz
Microbiology	Science	Start Quiz

TakeQuiz.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="TakeQuiz.aspx.vb"
Inherits="TakeQuiz" %>
<!DOCTYPE html>
<html>
<head runat="server">
  <title>Quiz in Progress</title>
  <link href="style.css" rel="stylesheet" />
</head>
<body>
  <form id="form1" runat="server">
    <div class="quiz-container">
      <asp:MultiView ID="mvQuiz" runat="server" ActiveViewIndex="0">

        <asp:View ID="vQuestion" runat="server">
          <div style="color: #7f8c8d; font-weight: bold;">
            Question <asp:Label ID="lblCount" runat="server"></asp:Label>
          </div>
          <hr />
          <asp:HiddenField ID="hfCurrentQID" runat="server" />
          <div class="q-text">
            <asp:Label ID="lblQuestion" runat="server"></asp:Label>
          </div>

          <asp:RadioButtonList ID="rblOptions" runat="server" CssClass="options-list"
DataTextField="OptionText" DataValueField="OptionID">
            </asp:RadioButtonList>

          <div class="footer-btns">
            <asp:Button ID="btnNext" runat="server" Text="Next Question" CssClass="btn"
OnClick="btnNext_Click" />
          </div>
        </asp:View>

        <asp:View ID="vResult" runat="server">
          <div class="score-box">
            <h2 id="resHeader" runat="server">Quiz Completed!</h2>
            <h1 style="font-size: 60px; color: #2ecc71;">
              <asp:Label ID="lblFinalScore" runat="server"></asp:Label>
              <span style="color: #2c3e50; margin: 0 10px;"></span>
              <asp:Label ID="lblMaxMarks" runat="server"></asp:Label>
            </h1>
          </div>
        </asp:View>
      </asp:MultiView>
    </div>
  </form>
</body>
</html>
```

```

        <p>Total Marks Obtained</p>
        <asp:Button ID="btnBack" runat="server" Text="Return to Dashboard"
        CssClass="btn" PostBackUrl="student.aspx" />
    </div>
</asp:View>

</asp:MultiView>
</div>
</form>
</body>
</html>

```

[TakeQuiz.aspx.vb](#)

```

Imports System.Data
Imports System.Data.SqlClient

```

```

Partial Class TakeQuiz
    Inherits System.Web.UI.Page

```

```

    Dim connStr As String =
    ConfigurationManager.ConnectionStrings("QuizDBConn").ConnectionString

```

```

Property CurrentIndex As Integer
    Get
        Return If(ViewState("Index") Is Nothing, 0, ViewState("Index"))
    End Get
    Set(value As Integer)
        ViewState("Index") = value
    End Set
End Property

```

```

Property TotalScore As Integer
    Get
        Return If(ViewState("Score") Is Nothing, 0, ViewState("Score"))
    End Get
    Set(value As Integer)
        ViewState("Score") = value
    End Set
End Property

```

```

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
    If Not IsPostBack Then

```

```

Dim qid As String = Request.QueryString("qid")
If String.IsNullOrEmpty(qid) Then Response.Redirect("student.aspx")

LoadQuestions(qid)
DisplayQuestion()
End If
End Sub

Sub LoadQuestions(qid As String)
Using conn As New SqlConnection(connStr)

Dim cmd As New SqlCommand("SELECT QuestionID, Question_Text FROM Question
WHERE QuizID = @qid", conn)
cmd.Parameters.AddWithValue("@qid", qid)
Dim da As New SqlDataAdapter(cmd)
Dim dt As New DataTable()
da.Fill(dt)

If dt.Rows.Count > 0 Then
ViewState("QuestionsDT") = dt
Else
Response.Write("<script>alert('No questions found!');
window.location='student.aspx';</script>")
End If
End Using
End Sub

Sub DisplayQuestion()
Dim dt As DataTable = CType(ViewState("QuestionsDT"), DataTable)

If CurrentIndex < dt.Rows.Count Then
Dim row As DataRow = dt.Rows(CurrentIndex)
lblCount.Text = (CurrentIndex + 1).ToString() & " / " & dt.Rows.Count.ToString()
lblQuestion.Text = row("Question_Text").ToString()
hfCurrentQID.Value = row("QuestionID").ToString()

LoadOptions(row("QuestionID").ToString())

If CurrentIndex = dt.Rows.Count - 1 Then
btnNext.Text = "Finish Quiz"
Else
btnNext.Text = "Next Question"

```

```

        End If
    Else
        ShowFinalResult()
    End If
End Sub

Sub LoadOptions(questionID As String)
    Using conn As New SqlConnection(connStr)

        Dim sql As String = "SELECT OptionID, Option_Text FROM Question_Option " &
            "WHERE QuestionID = @qid " &
            "ORDER BY NEWID()"

        Dim cmd As New SqlCommand(sql, conn)
        cmd.Parameters.AddWithValue("@qid", questionID)
        conn.Open()

        rblOptions.DataSource = cmd.ExecuteReader()
        rblOptions.DataTextField = "Option_Text"
        rblOptions.DataValueField = "OptionID"
        rblOptions.DataBind()
    End Using
End Sub

Protected Sub btnNext_Click(sender As Object, e As EventArgs)
    If rblOptions.SelectedIndex = -1 Then
        Response.Write("<script>alert('Please select an answer!');</script>")
        Return
    End If

    ' Answer check logic
    CheckAnswer()

    ' Next question
    CurrentIndex += 1
    DisplayQuestion()
End Sub

Sub CheckAnswer()
    Using conn As New SqlConnection(connStr)

        Dim sql As String = "SELECT q.Points FROM Question_Option qo " &
            "INNER JOIN Question q ON qo.QuestionID = q.QuestionID " &
            "WHERE qo.OptionID = @oid AND qo.Is_Correct = 1"

```

```
Dim cmd As New SqlCommand(sql, conn)
```

```
cmd.Parameters.AddWithValue("@oid", rblOptions.SelectedValue)  
conn.Open()
```

```
Dim result = cmd.ExecuteScalar()
```

```
If result IsNot Nothing AndAlso Not IsDBNull(result) Then
```

```
    Dim points As Integer = Convert.ToInt32(result)
```

```
    TotalScore += points
```

```
End If
```

```
End Using
```

```
End Sub
```

```
Sub ShowFinalResult()
```

```
mvQuiz.ActiveViewIndex = 1
```

```
lblFinalScore.Text = TotalScore.ToString() ' obtained marks
```

```
Using conn As New SqlConnection(connStr)
```

```
    Dim qid As String = Request.QueryString("qid")
```

```
    Dim sql As String = "SELECT ISNULL(SUM(Points), 0) FROM Question WHERE QuizID =  
@qid"
```

```
    Dim cmd As New SqlCommand(sql, conn)
```

```
    cmd.Parameters.AddWithValue("@qid", qid)
```

```
    conn.Open()
```

```
    lblMaxMarks.Text = cmd.ExecuteScalar().ToString()
```

```
End Using
```

```
SaveResultToDB()
```

```
End Sub
```

```
Sub SaveResultToDB()
```

```
    Dim qid As String = Request.QueryString("qid")
```

```
    Dim uid As String = If(Session("UserID") IsNot Nothing, Session("UserID").ToString(), "4")
```

```
    Using conn As New SqlConnection(connStr)
```

```
        Dim sql As String = "INSERT INTO Result (AttemptID, UserID, QuizID, Score, Status,  
Started_At, Completed_At) " &
```

```
"VALUES ((SELECT ISNULL(MAX(AttemptID),0)+1 FROM Result), @uid,  
@qid, @score, @status, GETDATE(), GETDATE())"
```

```
Dim cmd As New SqlCommand(sql, conn)  
cmd.Parameters.AddWithValue("@uid", uid)  
cmd.Parameters.AddWithValue("@qid", qid)  
cmd.Parameters.AddWithValue("@score", TotalScore)  
cmd.Parameters.AddWithValue("@status", "Completed")
```

```
conn.Open()  
cmd.ExecuteNonQuery()
```

```
End Using
```

```
End Sub
```

```
End Class
```

Question 1 / 1

AI enables machines to learn.

- False
- True

FINISH QUIZ

Quiz Completed!

0 / 2

Total Marks Obtained

[RETURN TO DASHBOARD](#)

Teacher.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="teacher.aspx.vb"
Inherits="teacher" %>
<!DOCTYPE html>
<html>
<head runat="server">
  <title>Teacher Dashboard</title>
  <link href="style.css" rel="stylesheet" />
</head>
<body>
```

```

<form id="form1" runat="server">
  <div class="navbar">Teacher Dashboard - Welcome <asp:Label ID="lblTeacherName"
runat="server"></asp:Label></div>

  <div class="sidebar">
    <a href="#" onclick="showSection('addQ')">Add Question</a>
    <a href="#" onclick="showSection('viewQ')">View All Questions</a>
    <a href="Login.aspx">Logout</a>
  </div>

  <div class="main">
    <asp:Label ID="lblMsg" runat="server" Visible="false" CssClass="alert"></asp:Label>

    <div id="addQ" class="card">
      <h1 class="header">Add New Question</h1>

      <label>Select Quiz Topic:</label>
      <asp:DropDownList ID="ddlQuiz" runat="server"
Width="100%"></asp:DropDownList>
      <br /><br />

      <asp:TextBox ID="txtQuestion" runat="server" placeholder="Enter Question Text"
Width="100%" TextMode="MultiLine" Height="50px"></asp:TextBox>
      <br /><br />

      <asp:TextBox ID="txtOpt1" runat="server" placeholder="Option 1"
Width="45%"></asp:TextBox>
      <asp:TextBox ID="txtOpt2" runat="server" placeholder="Option 2"
Width="45%"></asp:TextBox><br />
      <asp:TextBox ID="txtOpt3" runat="server" placeholder="Option 3"
Width="45%"></asp:TextBox>
      <asp:TextBox ID="txtOpt4" runat="server" placeholder="Option 4"
Width="45%"></asp:TextBox>
      <br /><br />

      <div style="display: flex; gap: 20px;">
        <div>
          <label>Correct Option:</label><br />
          <asp:DropDownList ID="ddlCorrect" runat="server">
            <asp:ListItem Value="0">Option 1</asp:ListItem>
            <asp:ListItem Value="1">Option 2</asp:ListItem>
            <asp:ListItem Value="2">Option 3</asp:ListItem>
            <asp:ListItem Value="3">Option 4</asp:ListItem>
          </asp:DropDownList>
        </div>
      </div>
    </div>
  </div>

```

```

        </div>
        <div>
            <label>Set Points:</label><br />
            <asp:TextBox ID="txtPoints" runat="server" TextMode="Number" min="1" step="1"
            Width="100px" placeholder="e.g. 5"></asp:TextBox>
        </div>
    </div>

    <asp:Button ID="btnSave" runat="server" Text="Save Question" CssClass="btn"
    OnClick="btnSave_Click" />
</div>

<div id="viewQ" class="card" style="display:none;">
    <h1 class="header">Questions List</h1>
    <asp:GridView ID="gvQuestions" runat="server" AutoGenerateColumns="False"
    Width="100%" CssClass="report-grid" DataKeyNames="QuestionID"
    OnRowDeleting="gvQuestions_RowDeleting">
        <Columns>
            <asp:BoundField DataField="QuestionID" HeaderText="ID" />
            <asp:BoundField DataField="Title" HeaderText="Quiz Title" />
            <asp:BoundField DataField="Question_Text" HeaderText="Question" />
            <asp:BoundField DataField="Points" HeaderText="Points" />
            <asp:TemplateField HeaderText="Manage">
                <ItemTemplate>
                    <asp:LinkButton ID="btnDelete" runat="server" CommandName="Delete"
                    Text="Remove" OnClientClick="return confirm('Delete this question?');"
                    ForeColor="Red"></asp:LinkButton>
                </ItemTemplate>
            </asp:TemplateField>
        </Columns>
    </asp:GridView>
</div>
</div>

<script>
    function showSection(section) {
        document.getElementById("addQ").style.display = "none";
        document.getElementById("viewQ").style.display = "none";
        document.getElementById(section).style.display = "block";
        // Hide message when switching sections
        var msg = document.getElementById('<%= lbIMsg.ClientID %>');
        if (msg) msg.style.display = 'none';
    }
</script>

```

```
</form>
</body>
</html>
```

Teacher.aspx.vb

```
Imports System.Data
Imports System.Data.SqlClient
Imports System.Configuration
```

```
Partial Class teacher
    Inherits System.Web.UI.Page
```

```
    Dim connStr As String =
    ConfigurationManager.ConnectionStrings("QuizDBConn").ConnectionString
```

```
    Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
        If Session("Role") Is Nothing OrElse Session("Role").ToString() <> "Teacher" Then
            Response.Redirect("Login.aspx")
        End If
```

```
        If Not IsPostBack Then
            lblTeacherName.Text = Session("UserName").ToString()
            BindQuizzes()
            BindQuestions()
        End If
    End Sub
```

```
    Private Sub ShowMessage(msg As String, isError As Boolean)
        lblMsg.Visible = True
        lblMsg.Text = msg
        lblMsg.CssClass = If(isError, "alert alert-error", "alert alert-success")
    End Sub
```

```
    Private Sub BindQuizzes()
        Using conn As New SqlConnection(connStr)
            Dim cmd As New SqlCommand("SELECT QuizID, Title FROM Quiz WHERE TeacherID
= @tid", conn)
            cmd.Parameters.AddWithValue("@tid", Session("UserID"))
            conn.Open()
            ddlQuiz.DataSource = cmd.ExecuteReader()
            ddlQuiz.DataTextField = "Title"
            ddlQuiz.DataValueField = "QuizID"
            ddlQuiz.DataBind()
```

```
        ddlQuiz.Items.Insert(0, New ListItem("-- Select Quiz --", "0"))
    End Using
End Sub
```

```
Private Sub BindQuestions()
    Using conn As New SqlConnection(connStr)
        Dim query As String = "SELECT q.QuestionID, qz.Title, q.Question_Text, q.Points
FROM Question q INNER JOIN Quiz qz ON q.QuizID = qz.QuizID WHERE qz.TeacherID =
@tid"
        Dim cmd As New SqlCommand(query, conn)
        cmd.Parameters.AddWithValue("@tid", Session("UserID"))
        Dim da As New SqlDataAdapter(cmd)
        Dim dt As New DataTable()
        da.Fill(dt)
        gvQuestions.DataSource = dt
        gvQuestions.DataBind()
    End Using
End Sub
```

```
Protected Sub btnSave_Click(sender As Object, e As EventArgs)
```

```
    ' 1. Basic Validation
```

```
    If ddlQuiz.SelectedValue = "0" Or String.IsNullOrEmpty(txtQuestion.Text) Then
        ShowMessage("Please fill all required fields!", True)
        Return
    End If
```

```
    Using conn As New SqlConnection(connStr)
        conn.Open()
```

```
        Dim checkQuery As String = "SELECT COUNT(*) FROM Question WHERE QuizID =
@qid AND Question_Text LIKE @qtxt"
        Dim cmdCheck As New SqlCommand(checkQuery, conn)
        cmdCheck.Parameters.AddWithValue("@qid", ddlQuiz.SelectedValue)
        cmdCheck.Parameters.AddWithValue("@qtxt", txtQuestion.Text.Trim())

        Dim count As Integer = Convert.ToInt32(cmdCheck.ExecuteScalar())
        If count > 0 Then
            ShowMessage("Duplicate Error: This question already exists in this quiz!", True)
            Return
        End If
```

```

Dim trans As SqlTransaction = conn.BeginTransaction()
Try

    Dim qQuery As String = "INSERT INTO Question (QuestionID, QuizID,
Question_Text, Question_Type, Points) " &
        "VALUES ((SELECT ISNULL(MAX(QuestionID), 0) + 1 FROM Question),
@quizid, @txt, 'MCQ', @pts); " &
        "SELECT MAX(QuestionID) FROM Question;"

    Dim cmdQ As New SqlCommand(qQuery, conn, trans)
    cmdQ.Parameters.AddWithValue("@quizid", ddlQuiz.SelectedValue)
    cmdQ.Parameters.AddWithValue("@txt", txtQuestion.Text.Trim())
    cmdQ.Parameters.AddWithValue("@pts",
If(String.IsNullOrEmpty(txtPoints.Text), 5, txtPoints.Text.Trim()))

    Dim newQID As Integer = Convert.ToInt32(cmdQ.ExecuteScalar())

    Dim opts() As String = {txtOpt1.Text.Trim(), txtOpt2.Text.Trim(), txtOpt3.Text.Trim(),
txtOpt4.Text.Trim()}

    For i As Integer = 0 To 3
        If Not String.IsNullOrEmpty(opts(i)) Then
            Dim isCorr As Integer = If(ddlCorrect.SelectedIndex = i, 1, 0)

            Dim oQuery As String = "INSERT INTO Question_Option (OptionID, QuestionID,
Option_Text, Is_Correct) " &
                "VALUES ((SELECT ISNULL(MAX(OptionID), 0) + 1 FROM
Question_Option), @qid, @otxt, @corr)"

            Dim cmdO As New SqlCommand(oQuery, conn, trans)
            cmdO.Parameters.AddWithValue("@qid", newQID)
            cmdO.Parameters.AddWithValue("@otxt", opts(i))
            cmdO.Parameters.AddWithValue("@corr", isCorr)
            cmdO.ExecuteNonQuery()
        End If
    Next

    trans.Commit()
    BindQuestions()
    ShowMessage("Question & Options added successfully!", False)

```

```
txtQuestion.Text = "" : txtOpt1.Text = "" : txtOpt2.Text = "" : txtOpt3.Text = "" :  
txtOpt4.Text = "" : txtPoints.Text = ""
```

```
    Catch ex As Exception  
        trans.Rollback()  
        ShowMessage("Database Error: " & ex.Message, True)  
    End Try  
End Using  
End Sub
```

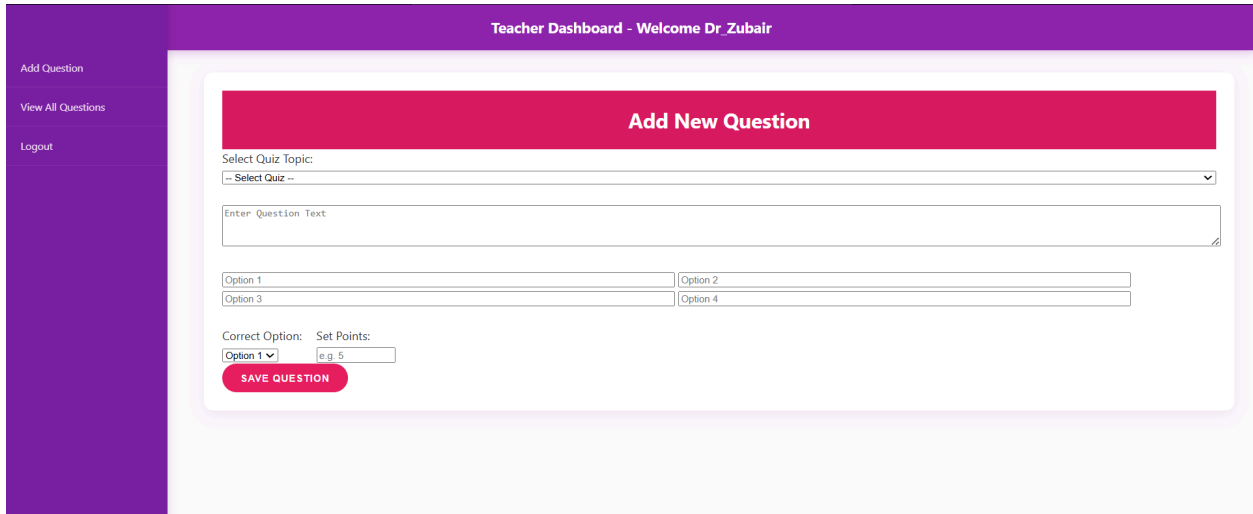
```
Protected Sub gvQuestions_RowDeleting(sender As Object, e As GridViewDeleteEventArgs)  
    Dim qID As Integer = Convert.ToInt32(gvQuestions.DataKeys(e.RowIndex).Value)
```

```
    Using conn As New SqlConnection(connStr)  
        conn.Open()  
        Dim trans As SqlTransaction = conn.BeginTransaction()  
        Try
```

```
            Dim delOpt As New SqlCommand("DELETE FROM Question_Option WHERE  
QuestionID = @qid", conn, trans)  
            delOpt.Parameters.AddWithValue("@qid", qID)  
            delOpt.ExecuteNonQuery()
```

```
            Dim delQ As New SqlCommand("DELETE FROM Question WHERE QuestionID =  
@qid", conn, trans)  
            delQ.Parameters.AddWithValue("@qid", qID)  
            delQ.ExecuteNonQuery()
```

```
            trans.Commit()  
            BindQuestions()  
            ShowMessage("Question removed successfully!", False)  
        Catch ex As Exception  
            trans.Rollback()  
            ShowMessage("Could not delete: " & ex.Message, True)  
        End Try  
    End Using  
End Sub  
End Class
```



Style.css file

```
/* =====  
1. General Reset & Base Styles  
===== */  
body {  
  margin: 0;  
  font-family: 'Segoe UI', Roboto, Helvetica, Arial, sans-serif;  
  background-color: #fdfafd;  
  color: #333;  
  line-height: 1.6;  
  min-height: 100vh;  
  display: flex;  
  flex-direction: column;  
}  
/* =====  
2. Layout Components (Sidebar & Navbar)  
===== */  
.header {  
  height: 80px;  
  background-color: #d81b60;  
  color: white;  
  text-align: center;  
  line-height: 80px;  
  font-size: 28px;  
  font-weight: bold;
```

```
margin: 0;
}
```

```
.navbar {
  background-color: #8e24aa;
  color: white;
  padding: 15px 25px;
  font-size: 20px;
  font-weight: bold;
  box-shadow: 0 2px 15px rgba(142, 36, 170, 0.3);
  text-align: center;
}
```

```
.sidebar {
  width: 220px;
  height: 100vh;
  background-color: #7b1fa2;
  position: fixed;
  top: 0;
  left: 0;
  padding-top: 60px;
  color: white;
  box-shadow: 2px 0 10px rgba(0,0,0,0.1);
}
```

```
.sidebar a, .sidebar .btn-logout {
  display: block;
  color: #f3e5f5;
  padding: 15px 20px;
  text-decoration: none;
  transition: 0.3s;
  font-size: 14px;
  border-bottom: 1px solid rgba(255,255,255,0.1);
}
```

```
.sidebar a:hover {
  background-color: #9c27b0;
  padding-left: 30px;
  border-left: 4px solid #ff4081;
  color: white;
}
```

```
.main {
  margin-left: 240px;
```

```

padding: 30px;
flex: 1;
}
/* =====
3. Dashboard & Cards
===== */
.card {
background: white;
padding: 25px;
border-radius: 12px;
box-shadow: 0px 4px 20px rgba(123, 31, 162, 0.1);
margin-bottom: 25px;
}

.welcome-header {
background: white;
padding: 20px;
border-radius: 10px;
border-left: 6px solid #e91e63;
box-shadow: 0 4px 15px rgba(0,0,0,0.05);
margin-bottom: 25px;
}

.welcome-header h1 {
margin: 0;
font-size: 24px;
color: #7b1fa2;
}

.welcome-header span {
color: #e91e63;
}

.stats-container {
display: flex;
gap: 15px;
margin-bottom: 25px;
flex-wrap: wrap;
}

.card-stat {
flex: 1;
min-width: 200px;
padding: 25px;

```

```

    color: white;
    border-radius: 15px;
    text-align: center;
    box-shadow: 0 6px 20px rgba(233, 30, 99, 0.2);
}

.bg-blue {
    background: linear-gradient(135deg, #ab47bc, #7b1fa2);
}

.bg-green {
    background: linear-gradient(135deg, #ec407a, #c2185b);
}

.bg-orange {
    background: linear-gradient(135deg, #ba68c8, #9c27b0);
}
/* =====
4. Tables & GridViews
===== */
.report-grid {
    width: 100%;
    border-collapse: collapse;
    background: white;
    margin-top: 15px;
    border-radius: 10px;
    overflow: hidden;
}

.report-grid th {
    background: #8e24aa;
    color: white;
    padding: 15px;
}

.report-grid td {
    padding: 12px;
    border-bottom: 1px solid #f3e5f5;
    text-align: center;
}

.report-grid tr:hover {
    background-color: #fce4ec;
}

```

```
/* =====
5. Forms & Inputs
===== */
.admin-box {
  background: #fff0f6;
  padding: 20px;
  border-radius: 10px;
  margin-bottom: 20px;
  border: 1px solid #f8bbd0;
}

.form-container {
  max-width: 500px;
  margin: 80px auto;
  padding: 30px;
  background: white;
  border-radius: 15px;
  box-shadow: 0px 10px 40px rgba(233, 30, 99, 0.15);
}

input:focus {
  outline: none;
  border-color: #e91e63;
  box-shadow: 0 0 8px rgba(233, 30, 99, 0.2);
}
/* =====
6. Buttons
===== */
.btn {
  background: #e91e63;
  color: white;
  padding: 12px 25px;
  border: none;
  border-radius: 30px;
  cursor: pointer;
  font-weight: bold;
  transition: 0.3s;
  text-transform: uppercase;
  letter-spacing: 1px;
}

.btn:hover {
  background: #c2185b;
  transform: scale(1.05);
```

```

        box-shadow: 0 5px 20px rgba(233, 30, 99, 0.4);
    }

.btn-go {
    background: #9c27b0;
    color: white;
    padding: 8px 20px;
    border-radius: 20px;
    text-decoration: none;
    font-size: 13px;
}
/* =====
7. TAKE QUIZ interface
===== */
.quiz-container {
    max-width: 600px;
    width: 90%;
    margin: auto;
    background: white;
    padding: 30px;
    border-radius: 15px;
    box-shadow: 0px 10px 30px rgba(0, 0, 0, 0.1);
}

.q-text {
    font-size: 20px;
    font-weight: bold;
    margin: 20px 0;
    color: #2c3e50;
}

.options-list {
    width: 100%;
    margin-bottom: 20px;
}

.options-list label {
    margin-left: 10px;
    cursor: pointer;
    font-size: 16px;
}

.footer-btns {
    text-align: center;

```

```
    margin-top: 20px;
}

.score-box {
    text-align: center;
    padding: 20px;
}
/* =====
8. Alerts
===== */
.alert-success {
    color: #880e4f;
    background-color: #fce4ec;
    border: 1px solid #f8bbd0;
}
```