

مبادرة رواد مصر الرقمية
(2025-2026)



SQL Server

[Examination System Database]

Documentation

Project Teamwork

Group (2)

No	Name
[1]	محمود عقل محمود
[2]	(Leader): عبد الرحمن علاء السيد
[3]	محمد عادل فتحي

Table of Contents

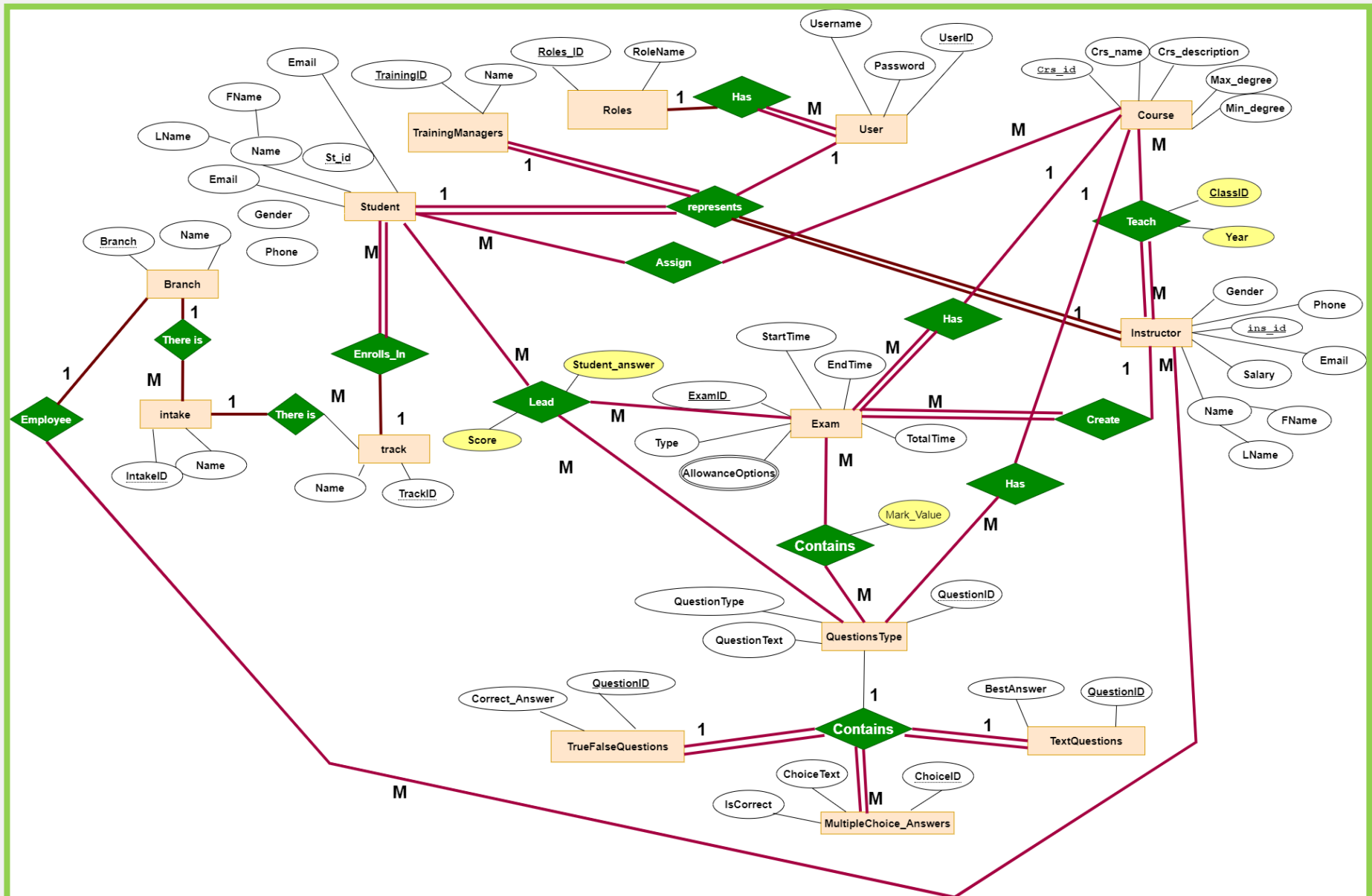
Contents

- Project Teamwork
- System Requirements
- ERD Diagram
- **SQL Server script file for all database structure, objects and data**
- **Text file containing name and brief description for all objects in DB**
- **Test sheets that contain test queries, its result and comment.**
- **Text file contains all accounts for the database and passwords.**

System requirements

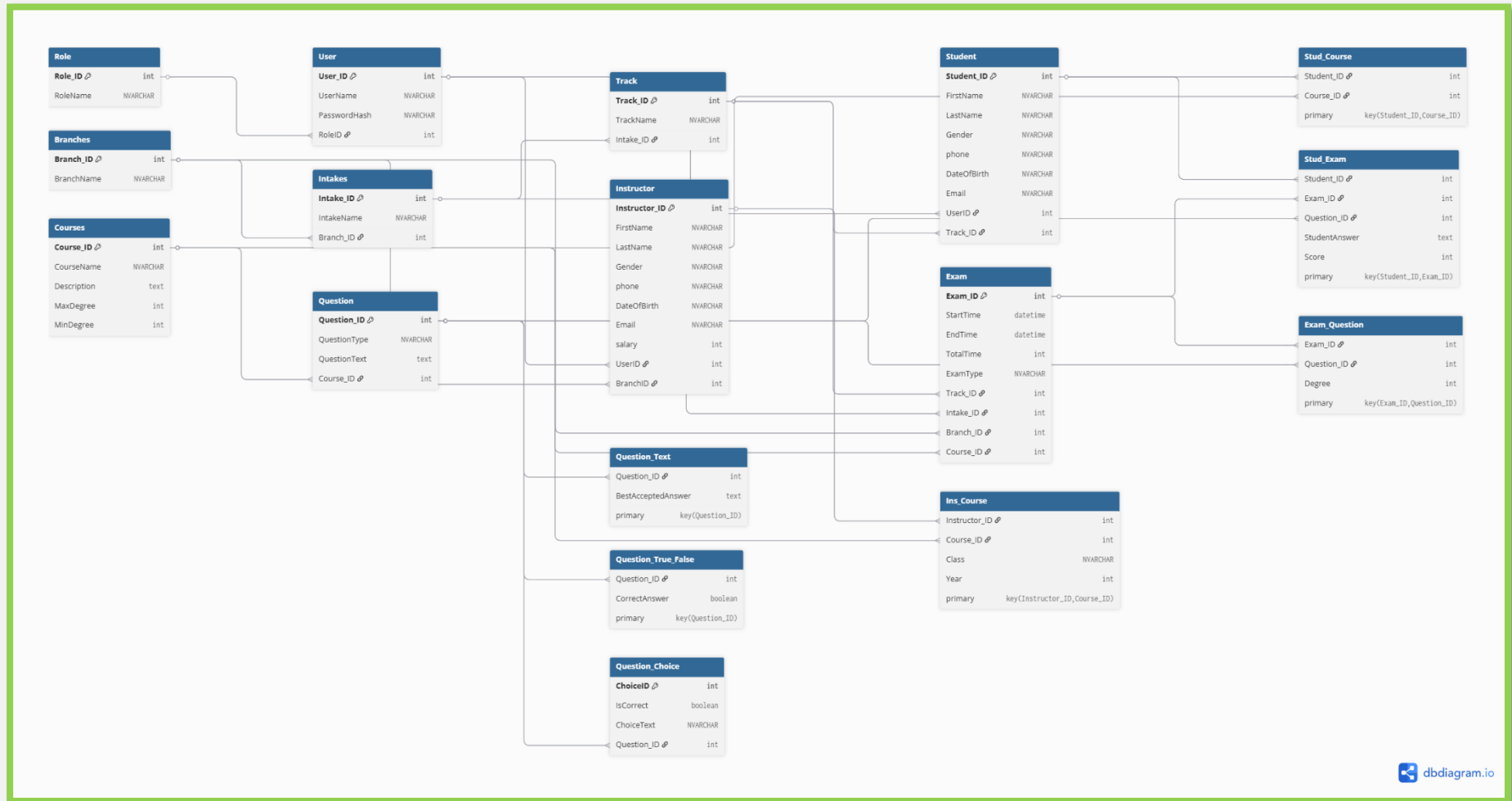
- 1) System should provide question pool, so instructor can pick an exam from it.
- 2) Questions type may be Multiple choice, True & false or text questions.
- 3) For multiple choice and true & false questions system should store correct answer and check student answer and store his result.
- 4) For text question system should store best accepted answer and use text functions and regular expression to check student answer and display result to the instructor show him valid answers and not valid answers to review them and enter the marks manually (Bonus).
- 5) System should store courses information (Course name, description, Max degree, Min Degree), instructors' information, and students' information, each instructor can teach one or more course, and each course may be teacher by one instructor in each class (Instructor may be changed for other class in other year).
- 6) Training manager can add and edit: Branches, tracks in each department, and add new intake.
- 7) Training manager can add students, and define their personal data, intake, branch, and track.
- 8) Training manager, Instructors, Students should have a login account to access the system.
- 9) Instructor can make Exam (For his coLurse only) by selecting number of questions of each type, the system selects the questions random, or he can select them manually from question pool. And he must put a degree for each question on the exam, and total degrees must not exceed the course Max Degree (One course may has more than one exam).
For each exam, we should know type (exam or corrective), intake, branch, track, course, start time, End time, total time and allowance options.
- 10) System should store each exam which defined by year, Course, instructor.
- 11) Instructor can select students that can do specific exam, and define Exam date, start time and end time. Students can see the exam and do it only on the specified time.
- 12) System should store students answer for the exam and calculate the correct answers, and calculate final result for the student in this course.
- 13) Insert test data in all tables and test your system.

ERD



Tables with Schema

→ <https://dbdiagram.io/d/68779227f413ba35082a51a3>



Database File

Files on GitHub link: <https://github.com/Akl-n1/Examination-System-Database.git>

Views

1. [TrainingManager].[VW_BranchReport]

Purpose:

Provides a statistical summary for each branch, including the number of intakes, tracks, instructors, students, courses, and exams associated with the branch.

	BranchID	BranchName	NumOfIntake	NumOfTrack	NumOfInstructor	NumOfStudent	NumOfCourses	NumOfExam
1	1	Smart Village	2	3	2	5	4	4
2	2	Alexandria	2	2	1	1	2	1
3	3	Mansoura	2	1	1	1	1	2

2. [TrainingManager].[VW_IntakeReport]

Purpose:

Provides a detailed report for each intake, showing the associated track, branch, and counts of instructors, students, courses, and exams linked to that intake.

	IntakeID	IntakeName	TrackName	BranchID	NumOfInstructor	NumOfStudent	NumOfCourses	NumOfExam
1	6	2027	NULL	3	0	0	0	0
2	1	2024	.NET Development	1	1	2	1	2
3	3	2028	Data Science	1	1	1	1	1
4	4	2025	Front-End Development	3	1	1	1	2
5	2	2026	Java Enterprise	2	1	1	1	1
6	1	2024	MERN Stack	1	2	2	1	1
7	5	2029	Python Backend	2	0	0	0	0

3. [TrainingManager].[VW_TrackReport]

Purpose:

Displays detailed statistics for each track, including its intake, branch, and the count of associated instructors, students, courses, and exams.

	TrackID	TrackName	IntakeID	IntakeName	BranchName	NumOfInstructor	NumOfStudent	NumOfCourses	NumOfExam
1	1	.NET Development	1	2024	Smart Village	2	2	4	2
2	2	MERN Stack	1	2024	Smart Village	2	2	4	1
3	3	Java Enterprise	2	2026	Alexandria	1	1	2	1
4	4	Data Science	3	2028	Smart Village	2	1	4	1
5	5	Front-End Development	4	2025	Mansoura	1	1	1	2
6	6	Python Backend	5	2029	Alexandria	1	0	2	0

4. [TrainingManager].[VW_CoursesReport]

Purpose:

Summarizes each course with description, max/min degrees, and counts of students, instructors, and related exams.

	CourseID	CourseName	Description	MaxDegree	MinDegree	NumOfStudent	NumOfInstructor	NumOfExam
1	1	SQL Server Development	A Comprehensive Course On SQL Server From Basics ...	100	50	3	1	2
2	2	C# Programming	Learn C# And .NET Framework To Build Powerful Appli...	100	50	3	1	0
3	3	Web Development (MERN)	Master The MERN Stack (MongoDB, Express, React, ...	100	50	3	2	1
4	4	Python for Data Analysis	Explore Data Analysis Techniques Using Python Librari...	100	50	3	1	1
5	5	Java Fundamentals	Learn The Basics of Java Programming Including OOP ...	100	50	2	1	1
6	6	Front-End Development	Build Responsive Web Interfaces Using HTML, CSS, Ja...	100	50	2	1	2

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5. [TrainingManager].[VW_InstructorReport]

Purpose:

Shows full instructor details such as name, age, contact info, branch, assigned class/year, and course name.

	InstructorID	UserName	InstructorName	Age	Email	Phone	Gender	DateOfBirth	Salary	BranchName	Class	Year	CourseName
1	1	InstructorFatema	Fatema Zahran	40	fatema.z@example.com	+201012345678	Female	1985-05-20	25000	Smart Village	A	2024	SQL Server Development
2	1	InstructorFatema	Fatema Zahran	40	fatema.z@example.com	+201012345678	Female	1985-05-20	25000	Smart Village	A	2024	C# Programming
3	2	InstructorSara	Sara Adel	35	sara.a@example.com	+201255566677	Female	1990-02-10	30000	Smart Village	B	2024	Web Development (MERN)
4	2	InstructorSara	Sara Adel	35	sara.a@example.com	+201255566677	Female	1990-02-10	30000	Smart Village	B	2024	Front-End Development
5	3	InstructorAmr	Amr Diab	43	amr.d@example.com	+201098765432	Male	1982-11-15	40000	Alexandria	C	2024	Python for Data Analysis
6	3	InstructorAmr	Amr Diab	43	amr.d@example.com	+201098765432	Male	1982-11-15	40000	Alexandria	C	2024	Java Fundamentals
7	4	InstructorAkram	Akram Ahmed	36	akram.a@example.com	+201165231546	Male	1989-11-15	35000	Mansoura	D	2024	Web Development (MERN)

7. [TrainingManager].[VW_StudentReport]

Purpose:

Summarizes student profiles with full name, age, gender, contact info, and associated branch, intake, and track.

	StudentID	FullName	Age	Email	Gender	Phone	BranchName	IntakeName	TrackName
1	1	Mohamed Ali	23	mohamed.a@example.com	Male	+201065487795	Smart Village	2024	.NET Development
2	2	Hassan Mahmoud	22	hassan.m@example.com	Male	+201563251484	Smart Village	2024	MERN Stack
3	3	Yara Ahmed	23	yara.a@example.com	Female	+201254357889	Alexandria	2026	Java Enterprise
4	4	Omar Sherif	22	omar.s@example.com	Male	+201023456754	Smart Village	2024	.NET Development
5	5	Nour Tarek	23	nour.t@example.com	Female	+201125267842	Smart Village	2028	Data Science
6	6	Khaled Ibrahim	22	khaled.i@example.com	Male	+201521534567	Smart Village	2024	MERN Stack
7	7	Lina Kamal	23	lina.k@example.com	Female	+201265432122	Mansoura	2025	Front-End Development

8. [TrainingManager].[VW_AllExamsReport]

Purpose:

Gives an overview of all exams, showing course, exam type, schedule, status (e.g., Upcoming, In-Progress), instructor, and track.

	ExamID	ExamName	StartTime	EndTime	Status	InstructorName	TrackName
1	1	SQL Server Development (Exam)	2024-08-01 09:00:00.000	2024-08-01 11:00:00.000	Done	Fatema Zahran	.NET Development
2	2	SQL Server Development (Corrective)	2024-08-15 09:00:00.000	2024-08-15 11:00:00.000	Done	Fatema Zahran	.NET Development
3	3	Web Development (MERN) (Exam)	2024-09-01 10:00:00.000	2024-09-01 12:00:00.000	Done	Sara Adel	MERN Stack
4	4	Java Fundamentals (Exam)	2026-03-10 10:00:00.000	2026-03-10 11:30:00.000	Upcoming	Amr Diab	Java Enterprise
5	5	Python for Data Analysis (Exam)	2028-05-20 13:00:00.000	2028-05-20 15:00:00.000	Upcoming	Fatema Zahran	Data Science
6	6	Front-End Development (Exam)	2025-04-15 09:00:00.000	2025-04-15 10:30:00.000	Done	Akram Ahmed	Front-End Development
7	7	Front-End Development (Corrective)	2025-10-15 09:00:00.000	2025-10-15 10:30:00.000	Upcoming	Akram Ahmed	Front-End Development

9. [TrainingManager].[VW_StudentReportMore]

Purpose:

Extends student details with username, first/last name, date of birth, course, track, intake, and branch.

	UserName	StudentID	FirstName	LastName	Email	Phone	Gender	DateOfBirth	CourseName	TrackName	IntakeName	BranchName
1	StudentMohamed	1	Mohamed	Ali	mohamed.a@example.com	+201065487795	Male	2002-08-25	SQL Server Development	.NET Development	2024	Smart Village
2	StudentMohamed	1	Mohamed	Ali	mohamed.a@example.com	+201065487795	Male	2002-08-25	C# Programming	.NET Development	2024	Smart Village
3	StudentMohamed	1	Mohamed	Ali	mohamed.a@example.com	+201065487795	Male	2002-08-25	Web Development (MERN)	.NET Development	2024	Smart Village
4	StudentHassan	2	Hassan	Mahmoud	hassan.m@example.com	+201563251484	Male	2003-01-30	Web Development (MERN)	MERN Stack	2024	Smart Village
5	StudentHassan	2	Hassan	Mahmoud	hassan.m@example.com	+201563251484	Male	2003-01-30	Python for Data Analysis	MERN Stack	2024	Smart Village
6	StudentHassan	2	Hassan	Mahmoud	hassan.m@example.com	+201563251484	Male	2003-01-30	Front-End Development	MERN Stack	2024	Smart Village
7	StudentYara	3	Yara	Ahmed	yara.a@example.com	+201254357889	Female	2002-12-12	Web Development (MERN)	Java Enterprise	2026	Alexandria
8	StudentYara	3	Yara	Ahmed	yara.a@example.com	+201254357889	Female	2002-12-12	Java Fundamentals	Java Enterprise	2026	Alexandria
9	StudentOmar	4	Omar	Sherif	omar.s@example.com	+201023456754	Male	2003-03-03	SQL Server Development	.NET Development	2024	Smart Village
10	StudentOmar	4	Omar	Sherif	omar.s@example.com	+201023456754	Male	2003-03-03	C# Programming	.NET Development	2024	Smart Village
11	StudentNour	5	Nour	Tarek	nour.t@example.com	+201125267842	Female	2002-07-19	Python for Data Analysis	Data Science	2028	Smart Village
12	StudentKhaled	6	Khaled	Ibrahim	khaled.i@example.com	+201521534567	Male	2003-05-22	C# Programming	MERN Stack	2024	Smart Village
13	StudentKhaled	6	Khaled	Ibrahim	khaled.i@example.com	+201521534567	Male	2003-05-22	Java Fundamentals	MERN Stack	2024	Smart Village
14	StudentKhaled	6	Khaled	Ibrahim	khaled.i@example.com	+201521534567	Male	2003-05-22	Front-End Development	MERN Stack	2024	Smart Village
15	StudentLina	7	Lina	Kamal	lina.k@example.com	+201265432122	Female	2002-10-01	SQL Server Development	Front-End Develo...	2025	Mansoura
16	StudentLina	7	Lina	Kamal	lina.k@example.com	+201265432122	Female	2002-10-01	Python for Data Analysis	Front-End Develo...	2025	Mansoura

11. [TrainingManager].[VW_SystemSummaryReport]

Purpose:

Presents a high-level summary of the entire system, including counts of branches, intakes, tracks, courses, students, instructors, exams, and questions.

	StudentName	Email	BranchName	TrackName	CourseName	ExamID	ExamType	StartTime	EndTime	StudentScore	TotalPossibleScore	Result	Grade
1	Mohamed Ali	mohamed.a@example.com	Smart Village	.NET Development	SQL Server Development	1	Exam	2024-08-01 09:00:00.000	2024-08-01 11:00:00.000	25	30	Pass	Very Good
2	hassan Mahmoud	hassan.m@example.com	Smart Village	MERN Stack	Web Development (MERN)	3	Exam	2024-09-01 10:00:00.000	2024-09-01 12:00:00.000	27	40	Pass	Fair
3	Yara Ahmed	yara.a@example.com	Alexandria	Java Enterprise	Java Fundamentals	4	Exam	2026-03-10 10:00:00.000	2026-03-10 11:30:00.000	28	40	Pass	Good
4	Omar Sherif	omar.s@example.com	Smart Village	.NET Development	SQL Server Development	1	Exam	2024-08-01 09:00:00.000	2024-08-01 11:00:00.000	0	30	Fail	Fail
5	Omar Sherif	omar.s@example.com	Smart Village	.NET Development	SQL Server Development	2	Corrective	2024-08-15 09:00:00.000	2024-08-15 11:00:00.000	28	30	Pass	Excellent
6	Nour Tarek	nour.t@example.com	Smart Village	Data Science	Python for Data Analysis	5	Exam	2028-05-20 13:00:00.000	2028-05-20 15:00:00.000	25	40	Pass	Fair
7	Khaled Ibrahim	khaled.i@example.com	Smart Village	MERN Stack	Web Development (MERN)	3	Exam	2024-09-01 10:00:00.000	2024-09-01 12:00:00.000	10	40	Fail	Fail
8	Lina Kamal	lina.k@example.com	Mansoura	Front-End Development	Front-End Development	6	Exam	2025-04-15 09:00:00.000	2025-04-15 10:30:00.000	15	40	Fail	Fail
9	Lina Kamal	lina.k@example.com	Mansoura	Front-End Development	Front-End Development	7	Corrective	2025-10-15 09:00:00.000	2025-10-15 10:30:00.000	37	40	Pass	Excellent

12. [TrainingManager].[VW_QuestionReport]

Purpose:

Provides insights about each question's usage, including its course, type, usage status, times used in exams, preview of text answers, and number of students who answered it.

QuestionText	QuestionType	CourseName	ExamStatus	TimesUsedInExams	ExamTypeNum	NumberOfChoices	BestAnswerPreview	Number
What Does SQL Stand For?	MCQ	SQL Server Development	Used in Exams	1	Exam 1 (Exam)	3	NULL	2
Which Command Is Used To Create A Table?	MCQ	SQL Server Development	Used in Exams	1	Exam 1 (Exam)	3	NULL	2
Primary Key Can Contain Null Values.	TF	SQL Server Development	Used in Exams	1	Exam 1 (Exam)	NULL	NULL	1
What Is C#?	Text	C# Programming	Not Used in Exams	0	Exam ()	NULL	C# Is A Modern, Object-Oriented, And Type-Safe Pro...	0
Is C# A Statically-Typed Language?	TF	C# Programming	Not Used in Exams	0	Exam ()	NULL	NULL	0
What Does MERN Stand For?	MCQ	Web Development (MERN)	Used in Exams	1	Exam 3 (Exam)	3	NULL	2
What Is The Core Component Of React?	MCQ	Web Development (MERN)	Used in Exams	1	Exam 3 (Exam)	3	NULL	1
Explain The Concept Of Virtual DOM.	Text	Web Development (MERN)	Used in Exams	1	Exam 3 (Exam)	NULL	The Virtual DOM (VDOM) Is A Programming Concept W...	1
What Is The Main Use Of Pandas Library?	MCQ	Python for Data Analysis	Used in Exams	1	Exam 5 (Exam)	3	NULL	1
Java Was Developed By Microsoft.	TF	Java Fundamentals	Used in Exams	1	Exam 4 (Exam)	NULL	NULL	1
What Does CSS Stand For?	MCQ	Front-End Development	Used in Exams	1	Exam 6 (Exam)	3	NULL	1
What Does CSS Stand For?	MCQ	Front-End Development	Used in Exams	1	Exam 7 (Corrective)	3	NULL	1
Explain The Difference Between 'let' And 'const' In Java...	Text	Front-End Development	Used in Exams	1	Exam 7 (Corrective)	NULL	'let' Allows Reassignment Of Variables, While 'con...	1
What Is The Difference Between DELETE And TRUNCAT...	Text	SQL Server Development	Used in Exams	1	Exam 2 (Corrective)	NULL	DELETE is a DML command that removes rows one by...	1
The 'JOIN' Clause Is Used To Combine Rows From Two...	TF	SQL Server Development	Used in Exams	1	Exam 2 (Corrective)	NULL	NULL	1
What Is The Common Language Runtime (CLR)?	MCQ	C# Programming	Not Used in Exams	0	Exam ()	3	NULL	0
In C#, Can A Class Inherit From Multiple Classes?	TF	C# Programming	Not Used in Exams	0	Exam ()	NULL	NULL	0
What Is Express.js Used For In The MERN Stack?	MCQ	Web Development (MERN)	Not Used in Exams	0	Exam ()	3	NULL	0
Which Keyword Is Used To Define A Function In Python?	MCQ	Python for Data Analysis	Used in Exams	1	Exam 5 (Exam)	3	NULL	1
Explain What A Python Dictionary Is.	Text	Python for Data Analysis	Used in Exams	1	Exam 5 (Exam)	NULL	A dictionary in Python is an unordered collection ...	0
What Is The JVM?	Text	Java Fundamentals	Used in Exams	1	Exam 4 (Exam)	NULL	The Java Virtual Machine (JVM) is an abstract mach...	1
Java Supports Multiple Inheritance.	TF	Java Fundamentals	Used in Exams	1	Exam 4 (Exam)	NULL	NULL	1
What Is Bootstrap?	MCQ	Front-End Development	Used in Exams	1	Exam 6 (Exam)	3	NULL	1
'<div>' Is An Inline Element In HTML.	TF	Front-End Development	Used in Exams	1	Exam 7 (Corrective)	NULL	NULL	1

13. [TrainingManager].[VW_CourseQuestionPool]

Purpose:

Lists all questions per course with their IDs, texts, and types, forming a question bank by course.

	CourseName	QuestionID	QuestionText	QuestionType
1	SQL Server Development	1	What Does SQL Stand For?	MCQ
2	SQL Server Development	2	Which Command Is Used To Create A Table?	MCQ
3	SQL Server Development	3	Primary Key Can Contain Null Values.	TF
4	C# Programming	4	What Is C#?	Text
5	C# Programming	5	Is C# A Statically-Typed Language?	TF
6	Web Development (MERN)	6	What Does MERN Stand For?	MCQ
7	Web Development (MERN)	7	What Is The Core Component Of React?	MCQ
8	Web Development (MERN)	8	Explain The Concept Of Virtual DOM.	Text
9	Python for Data Analysis	9	What Is The Main Use Of Pandas Library?	MCQ
10	Java Fundamentals	10	Java Was Developed By Microsoft.	TF
11	Front-End Development	11	What Does CSS Stand For?	MCQ
12	Front-End Development	12	Explain The Difference Between 'let' And 'const' In Java...	Text

1. [Instructor].[VW_MyProfile]

Purpose:

Displays the profile of the currently logged-in instructor, including personal information, assigned courses, and class details..

	InstructorID	UserName	InstructorName	Age	Email	Phone	Gender	BranchName	CourseName	Class	Year
1	1	InstructorFatema	Fatema Zahran	40	fatema.z@example.com	+201012345678	Female	Smart Village	SQL Server Development	A	2024
2	1	InstructorFatema	Fatema Zahran	40	fatema.z@example.com	+201012345678	Female	Smart Village	C# Programming	A	2024

2. [Instructor].[VW_MyStudents]

Purpose:

Lists all students assigned to the currently logged-in instructor, including their names, emails, and tracks.

	InstructorID	CourseName	StudentID	StudentName	StudentEmail	TrackName
1	1	C# Programming	1	Mohamed Ali	mohamed.a@example.com	.NET Development
2	1	C# Programming	4	Omar Sherif	omar.s@example.com	.NET Development
3	1	C# Programming	6	Khaled Ibrahim	khaled.i@example.com	MERN Stack
4	1	SQL Server Development	1	Mohamed Ali	mohamed.a@example.com	.NET Development
5	1	SQL Server Development	4	Omar Sherif	omar.s@example.com	.NET Development
5	1	SQL Server Development	7	Lina Kamal	lina.k@example.com	Front-End Development

3. [Instructor].[VW_MyCourses]

Purpose:

Shows all courses taught by the currently logged-in instructor, along with descriptions, degrees, class info, and number of enrolled students.

	InstructorID	CourseName	Description	MaxDegree	MinDegree	Class	Year	NumberOfEnrolledStudents
1	1	SQL Server Development	A Comprehensive Course On SQL Server From Basics...	100	50	A	2024	3
2	1	C# Programming	Learn C# And.NET Framework To Build Powerful Appli...	100	50	A	2024	3

4. [Instructor].[VW_MyStudentsResults]

Purpose:

Displays each student's total score per exam created by the logged-in instructor, along with the total possible score.

	StudentID	StudentName	ExamID	CourseName	ExamType	StudentScore	TotalExamScore
1	1	Mohamed Ali	1	SQL Server Development	Exam	25	30
2	4	Omar Sherif	1	SQL Server Development	Exam	0	30
3	4	Omar Sherif	2	SQL Server Development	Corrective	28	30
4	5	Nour Tarek	5	Python for Data Analysis	Exam	25	40

5. [Instructor].[VW_MyExams]

Purpose:

Shows all exams created by the instructor, with their status (Upcoming, In-Progress, Done), time range, and number of students who took them.

	ExamID	ExamName	StartTime	EndTime	Status	TrackName	NumOfStudentEntered
1	1	SQL Server Development - Exam	2024-08-01 09:00:00.000	2024-08-01 11:00:00.000	Done	.NET Development	2
2	2	SQL Server Development - Corrective	2024-08-15 09:00:00.000	2024-08-15 11:00:00.000	Done	.NET Development	1
3	5	Python for Data Analysis - Exam	2028-05-20 13:00:00.000	2028-05-20 15:00:00.000	Upcoming	Data Science	1

6. [Instructor].[VW_MyQuestions]

Purpose:

Lists all questions created by the instructor, categorized by course and type.

	QuestionID	QuestionText	QuestionType	CourseName
1	1	What Does SQL Stand For?	MCQ	SQL Server Development
2	2	Which Command Is Used To Create A Table?	MCQ	SQL Server Development
3	3	Primary Key Can Contain Null Values.	TF	SQL Server Development
4	4	What Is C#?	Text	C# Programming
5	5	Is C# A Statically-Typed Language?	TF	C# Programming
6	13	What Is The Difference Between DELETE And TRUNCAT...	Text	SQL Server Development
7	14	The 'JOIN' Clause Is Used To Combine Rows From Two...	TF	SQL Server Development
8	15	What Is The Common Language Runtime (CLR)?	MCQ	C# Programming
9	16	In C#, Can A Class Inherit From Multiple Classes?	TF	C# Programming

7. [Instructor].[VW_MyQuestionsWithAnswers]

Purpose:

Displays each question with its correct answer. For MCQs, also lists all choices in a formatted string.

	QuestionID	CourseName	QuestionText	QuestionType	Choices	CorrectAnswer
1	1	SQL Server Development	What Does SQL Stand For?	MCQ	A) Strong Question Language B) Structured Quer...	Structured Query Language
2	2	SQL Server Development	Which Command Is Used To Create A Table?	MCQ	A) CREATE TABLE B) NEW TABLE C) ADD TABLE	CREATE TABLE
3	3	SQL Server Development	Primary Key Can Contain Null Values.	TF	TRUE(1) False(0)	0
4	4	C# Programming	What Is C#?	Text	Answer The Question	C# Is A Modern, Object-Oriented, And Type-Safe Prog
5	5	C# Programming	Is C# A Statically-Typed Language?	TF	TRUE(1) False(0)	1
6	13	SQL Server Development	What Is The Difference Between DELETE And TRUNCAT...	Text	Answer The Question	DELETE is a DML command that removes rows one
7	14	SQL Server Development	The 'JOIN' Clause Is Used To Combine Rows From Two...	TF	TRUE(1) False(0)	1
8	15	C# Programming	What Is The Common Language Runtime (CLR)?	MCQ	A) A C# Compiler B) A UI Design Tool C) An Envi...	An Environment That Manages The Execution Of .NE
9	16	C# Programming	In C#, Can A Class Inherit From Multiple Classes?	TF	TRUE(1) False(0)	0

8. [Instructor].[VW_MyStudentsAnswersDetails]

Purpose:

Shows detailed answer information per student per question in exams conducted by the instructor, including score and student answer.

	StudentID	StudentName	ExamID	QuestionID	QuestionText	StudentAnswer	Score
1	1	Mohamed Ali	1	1	What Does SQL Stand For?	Structured Query Language	10
2	1	Mohamed Ali	1	2	Which Command Is Used To Create A Table?	CREATE TABLE	15
3	1	Mohamed Ali	1	3	Primary Key Can Contain Null Values.	1	0
4	4	Omar Sherif	1	1	What Does SQL Stand For?	Strong Question Language	0
5	4	Omar Sherif	1	2	Which Command Is Used To Create A Table?	NEW TABLE	0
6	4	Omar Sherif	2	13	What Is The Difference Between DELETE And TRUNCAT...	DELETE removes rows one by one, TRUNCATE is fast..	18
7	4	Omar Sherif	2	14	The 'JOIN' Clause Is Used To Combine Rows From Two...	1	10
8	5	Nour Tarek	5	9	What Is The Main Use Of Pandas Library?	Data Manipulation And Analysis	15
9	5	Nour Tarek	5	18	Which Keyword Is Used To Define A Function In Python?	def	10

9. [Instructor].[VW_MyUnusedQuestions]

Purpose:

Lists all questions created by the instructor that haven't been used in any exam yet, including course and type, and number of choices for MCQs.

	QuestionID	QuestionText	QuestionType	CourseName	CourseID
1	4	What Is C#?	Text	C# Programming	2
2	5	Is C# A Statically-Typed Language?	TF	C# Programming	2
3	15	What Is The Common Language Runtime (CLR)?	MCQ	C# Programming	2
4	16	In C#, Can A Class Inherit From Multiple Classes?	TF	C# Programming	2

1. [Student].[VW_MyProfile]

Purpose:

Displays the profile of the currently logged-in student, including personal information (name, email, phone) and academic details (track, intake, branch).

	StudentID	FullName	Email	Phone	TrackName	IntakeName	BranchName
1	1	Mohamed Ali	mohamed.a@example.com	+201065487795	.NET Development	2024	Smart Village

2. [Student].[VW_AvailableExams]

Purpose:

Displays all available exams (upcoming or in-progress) for the currently logged-in student, showing exam details, course name, instructor name, time, and current exam status.

	ExamID	ExamType	CourseName	InstructorName	StartTime	EndTime	TotalTime	Status
1	4	Exam	Java Fundamentals	Amr Diab	2026-03-10 10:00:00.000	2026-03-10 11:30:00.000	90	Upcoming
2	5	Exam	Python for Data Analysis	Fatema Zahran	2028-05-20 13:00:00.000	2028-05-20 15:00:00.000	120	Upcoming

3. [Student].[VW_MyResults]

Purpose:

Displays the exam results of the currently logged-in student, including score, total degree, pass/fail status, and course information for each exam taken.

	StudentID	StudentName	ExamID	ExamType	CourseName	StudentScore	TotalExamDegree	Status
1	1	Mohamed Ali	1	Exam	SQL Server Development	25	30	Passed

Stored Procedure

1. [Admin].[SP_LoginForUser]

Purpose:

Creates a SQL Server login, database user, and assigns the user to the appropriate role in the database based on the application's internal Role table.

2. [Admin].[SP_EditUser]

Purpose:

Updates a user's username, password hash, or role ID in the application's `User` table, with proper validation checks to prevent data conflicts or invalid roles.

	UserID	UserName	PasswordHash	CreatedDate	RoleID
	1	AdminAbdulrhman	000	2025-07-30 ...	1
	2	ManagerAli	111	2025-07-30 ...	2
	3	InstructorFatema	222	2025-07-30 ...	3
	4	InstructorSara	333	2025-07-30 ...	3
	5	InstructorAmr	444	2025-07-30 ...	3
	6	InstructorAkram	555	2025-07-30 ...	3
	7	StudentMohamed	666	2025-07-30 ...	4
	8	StudentHassan	777	2025-07-30 ...	4
	9	StudentYara	888	2025-07-30 ...	4
	10	StudentOmar	999	2025-07-30 ...	4
	11	StudentNour	1010	2025-07-30 ...	4
	12	StudentKhaled	1111	2025-07-30 ...	4
	13	KhaledStudent	NewPass@1234	2025-07-30 ...	4
	17	StudentYoussef	Strong@123	2025-07-31 ...	4
▶	25	InstructorAli	Pass@Ali123	2025-07-31 ...	3
*	NULL	NULL	NULL	NULL	NULL

	UserID	UserName	PasswordHash	CreatedDate	RoleID
▶	1	AdminAbdulrhman	000	2025-07-30 ...	1
	2	ManagerAli	111	2025-07-30 ...	2
	3	InstructorFatema	222	2025-07-30 ...	3
	4	InstructorSara	333	2025-07-30 ...	3
	5	InstructorAmr	444	2025-07-30 ...	3
	6	InstructorAkram	555	2025-07-30 ...	3
	7	StudentMohamed	666	2025-07-30 ...	4
	8	StudentHassan	777	2025-07-30 ...	4
	9	StudentYara	888	2025-07-30 ...	4
	10	StudentOmar	999	2025-07-30 ...	4
	11	StudentNour	1010	2025-07-30 ...	4
	12	StudentKhaled	1111	2025-07-30 ...	4
	13	KhaledStudent	NewPass@1234	2025-07-30 ...	4
	17	StudentYoussef	Strong@123	2025-07-31 ...	4
	25	InstructorAli	NewPass@2025	2025-07-31 ...	3
*	NULL	NULL	NULL	NULL	NULL

```
EXEC [Admin].[SP_EditUser]
    @UserID = 25,
    @UserName = N'InstructorAli',
    @PasswordHash = N'NewPass@2025',
    @RoleID = 3;
```

3. [Admin].[SP_DeleteUser]

Purpose:

Completely deletes a user from the system, including all related data (exams, answers, course links, etc.), whether the user is an instructor or a student.

	UserID	UserName	PasswordHash	CreatedDate	RoleID
	1	AdminAbdulrhman	000	2025-07-30 ...	1
	2	ManagerAli	111	2025-07-30 ...	2
	3	InstructorFatema	222	2025-07-30 ...	3
	4	InstructorSara	333	2025-07-30 ...	3
	5	InstructorAmr	444	2025-07-30 ...	3
	6	InstructorAkram	555	2025-07-30 ...	3
	7	StudentMohamed	666	2025-07-30 ...	4
	8	StudentHassan	777	2025-07-30 ...	4
	9	StudentYara	888	2025-07-30 ...	4
	10	StudentOmar	999	2025-07-30 ...	4
	11	StudentNour	1010	2025-07-30 ...	4
	12	StudentKhaled	1111	2025-07-30 ...	4
▶	13	KhaledStudent	NewPass@1234	2025-07-30 ...	4
	17	StudentYoussef	Strong@123	2025-07-31 ...	4
	25	InstructorAli	NewPass@2025	2025-07-31 ...	3
*	NULL	NULL	NULL	NULL	NULL

	UserID	UserName	PasswordHash	CreatedDate	RoleID
▶	1	AdminAbdulrhman	000	2025-07-30 ...	1
	2	ManagerAli	111	2025-07-30 ...	2
	3	InstructorFatema	222	2025-07-30 ...	3
	4	InstructorSara	333	2025-07-30 ...	3
	5	InstructorAmr	444	2025-07-30 ...	3
	6	InstructorAkram	555	2025-07-30 ...	3
	7	StudentMohamed	666	2025-07-30 ...	4
	8	StudentHassan	777	2025-07-30 ...	4
	9	StudentYara	888	2025-07-30 ...	4
	10	StudentOmar	999	2025-07-30 ...	4
	11	StudentNour	1010	2025-07-30 ...	4
	12	StudentKhaled	1111	2025-07-30 ...	4
	17	StudentYoussef	Strong@123	2025-07-31 ...	4
	25	InstructorAli	NewPass@2025	2025-07-31 ...	3
*	NULL	NULL	NULL	NULL	NULL

```
EXEC [Admin].[SP_DeleteUser] @UserID = 13;
```

3. [TrainingManager].[SP_AddNewStudent]

Purpose:

Adds a new student to the system by creating a user account in the [User] table and then inserting the student's personal information into the Student table. The procedure ensures data integrity through validation and uses a transaction to maintain consistency.

4.

	StudentID	FirstName	LastName	Phone	Email	Gender	DateOfBirth	UserID	TrackID
▶	1	Mohamed	Ali	+20106548...	mohamed.a...	Male	2002-08-25	7	1
	2	Hassan	Mahmoud	+20156325...	hassan.m@...	Male	2003-01-30	8	2
	3	Yara	Ahmed	+201254357889	a.a@exa...	Female	2002-12-12	9	3
	4	Omar	Sherif	+20102345...	omar.s@exa...	Male	2003-03-03	10	1
	5	Nour	Tarek	+20112526...	nour.t@exa...	Female	2002-07-19	11	4
	6	Khaled	Ibrahim	+20152153...	khaled.i@ex...	Male	2003-05-22	12	2
	11	Youssef	Khaled	01098765432	youssef.khal...	Male	2003-11-20	17	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

	StudentID	FirstName	LastName	Phone	Email	Gender	DateOfBirth	UserID	TrackID
▶	1	Mohamed	Ali	+20106548...	mohamed.a...	Male	2002-08-25	7	1
	2	Hassan	Mahmoud	+20156325...	hassan.m@...	Male	2003-01-30	8	2
	3	Yara	Ahmed	+20125435...	yara.a@exa...	Female	2002-12-12	9	3
	4	Omar	Sherif	+20102345...	omar.s@exa...	Male	2003-03-03	10	1
	5	Nour	Tarek	+20112526...	nour.t@exa...	Female	2002-07-19	11	4
	6	Khaled	Ibrahim	+20152153...	khaled.i@ex...	Male	2003-05-22	12	2
	11	Youssef	Khaled	01098765432	youssef.khal...	Male	2003-11-20	17	2
	12	Mohamed	Hassan	01001234567	mohamed.h...	Male	2002-05-15	27	3
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_AddNewStudent]

@UserName = 'mohamed.hassan',
@Password = '12345678',
@FirstName = 'Mohamed',
@LastName = 'Hassan',
@Phone = '01001234567',
@email = 'mohamed.hassan@example.com',
@Gender = 'Male',
@DOB = '2002-05-15',
@TrackID = 3;
```

4. [TrainingManager].[SP_AddNewInstructor]

Purpose:

Adds a new instructor to the system, including creating a user account and inserting instructor profile details, in a safe, transactional way.

	InstructorID	FirstName	LastName	Phone	Email	Salary	Gender	DateOfBirth	UserID	BranchID
▶	1	Fatema	Zahran	+20101234...	fatema.z@e...	25000	Female	1985-05-20	3	1
	2	Sara	Adel	+20125556...	sara.a@exa...	30000	Female	1990-02-10	4	1
	3	Amr	Diab	+20109876...	amr.d@exa...	40000	Male	1982-11-15	5	2
	4	Akram	Ahmed	+20116523...	akram.a@ex...	35000	Male	1989-11-15	6	3
	12	Ali	Mahdy	01123456789	Ali.mahdy@...	7500	Male	1990-10-05	25	2

```
EXEC [TrainingManager].[SP_AddNewInstructor]

@UserName = 'ahmed.ali',
@Password = 'instructor123',
@FirstName = 'Ahmed',
@LastName = 'Ali',
@Phone = '01001122334',
@email = 'ahmed.ali@example.com',
@Gender = 'Male',
@Salary = 7000,
@DOB = '1990-03-20',
@BranchID = 2;
```

	InstructorID	FirstName	LastName	Phone	Email	Salary	Gender	DateOfBirth	UserID	BranchID
▶	1	Fatema	Zahran	+20101234...	fatema.z@e...	25000	Female	1985-05-20	3	1
	2	Sara	Adel	+20125556...	sara.a@exa...	30000	Female	1990-02-10	4	1
	3	Amr	Diab	+20109876...	amr.d@exa...	40000	Male	1982-11-15	5	2
	4	Akram	Ahmed	+20116523...	akram.a@ex...	35000	Male	1989-11-15	6	3
	12	Ali	Mahdy	01123456789	Ali.mahdy@...	7500	Male	1990-10-05	25	2
	14	Ahmed	Ali	01001122334	ahmed.ali@...	7000	Male	1990-03-20	28	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

5. [TrainingManager].[SP_AddNewBranch]

Purpose:

Adds a new training branch to the system, after verifying the name doesn't already exist, within a safe transaction.

	BranchID	BranchName
▶	2	Alexandria
	3	Mansoura
	1	Smart Village
*	NULL	NULL

```
EXEC [TrainingManager].[SP_AddNewBranch]
@BranchName = 'Heliopolis';
```

	BranchID	BranchName
▶	2	Alexandria
	4	Heliopolis
	3	Mansoura
	1	Smart Village
*	NULL	NULL

6. [TrainingManager].[SP_AddNewIntake]

Purpose:

Adds a new intake (student group) to a specific branch, ensuring no duplicate intake name exists within the same branch.

	IntakeID	IntakeName	BranchID
▶	1	2024	1
	4	2025	3
	2	2026	2
	6	2027	3
	3	2028	1
	5	2029	2
*	NULL	NULL	NULL

	IntakeID	IntakeName	BranchID
▶	1	2024	1
	4	2025	3
	2	2026	2
	6	2027	3
	3	2028	1
	5	2029	2
	8	Intake 2025	3
*	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_AddNewIntake]
    @IntakeName = 'Intake 2025',
    @BranchID = 3;
```

7. [TrainingManager].[SP_AddNewTrack]

Purpose:

Adds a new track (specialization) under a specific intake, while preventing duplicate track names within the same intake.

	TrackID	TrackName	IntakeID
▶	1	.NET Develo...	1
	4	Data Science	3
	5	Front-End D...	4
	3	Java Enterpr...	2
	2	MERN Stack	1
	6	Python Back...	5
*	NULL	NULL	NULL

	TrackID	TrackName	IntakeID
▶	1	.NET Develo...	1
	4	Data Science	3
	5	Front-End D...	4
	7	Full Stack .N...	1
	3	Java Enterpr...	2
	2	MERN Stack	1
	6	Python Back...	5
*	NULL	NULL	NULL

```
EXEC SP_AddNewTrack
    @TrackName = 'Full Stack .NET',
    @IntakeID = 1;
```

8. [TrainingManager].[SP_AddNewCourse]

Purpose:

Adds a new course with name, optional description, and validation rules for Max/Min degrees.

	CourseID	CourseName	Description	MaxDegree	MinDegree
▶	1	SQL Server ...	A Compreh...	100	50
	2	C# Program...	Learn C# An...	100	50
	3	Web Develo...	Master The ...	100	50
	4	Python for ...	Explore Dat...	100	50
	5	Java Funda...	Learn The B...	100	50
	6	Front-End D...	Build Respo...	100	50
	7	SQL Server ...	A Compreh...	100	50
	8	C# Program...	Learn C# An...	100	50
	9	Web Develo...	Master The ...	100	50
	10	Python for ...	Explore Dat...	100	50
	11	Java Funda...	Learn The B...	100	50
	12	Front-End D...	Build Respo...	100	50
*	NULL	NULL	NULL	NULL	NULL

	CourseID	CourseName	Description	MaxDegree	MinDegree
▶	1	SQL Server ...	A Compreh...	100	50
	2	C# Program...	Learn C# An...	100	50
	3	Web Develo...	Master The ...	100	50
	4	Python for ...	Explore Dat...	100	50
	5	Java Funda...	Learn The B...	100	50
	6	Front-End D...	Build Respo...	100	50
	7	SQL Server ...	A Compreh...	100	50
	8	C# Program...	Learn C# An...	100	50
	9	Web Develo...	Master The ...	100	50
	10	Python for ...	Explore Dat...	100	50
	11	Java Funda...	Learn The B...	100	50
	12	Front-End D...	Build Respo...	100	50
	13	Database S...	Introduction...	100	50
*	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_AddNewCourse]
    @CourseName = 'Database Systems',
    @Description = 'Introduction to relational databases',
    @MaxDegree = 100,
    @MinDegree = 50;
```


9. [TrainingManager].[SP_DeleteStudent]

Purpose:

Safely deletes a student by ID, including related course enrollments and exam answers.

	StudentID	FirstName	LastName	Phone	Email	Gender	DateOfBirth	UserID	TrackID
▶	1	Mohamed	Ali	+20106548...	mohamed.a...	Male	2002-08-25	7	1
	2	Hassan	Mahmoud	+20156325...	hassan.m@...	Male	2003-01-30	8	2
	3	Yara	Ahmed	+20125435...	yara.a@exa...	Female	2002-12-12	9	3
	4	Omar	Sherif	+20102345...	omar.s@exa...	Male	2003-03-03	10	1
	5	Nour	Tarek	+20112526...	nour.t@exa...	Female	2002-07-19	11	4
	6	Khaled	Ibrahim	+20152153...	khaled.i@ex...	Male	2003-05-22	12	2
	11	Youssef	Khaled	01098765432	youssef.khal...	Male	2003-11-20	17	2
	12	Mohamed	Hassan	01001234567	mohamed.h...	Male	2002-05-15	27	3
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

	StudentID	FirstName	LastName	Phone	Email	Gender	DateOfBirth	UserID	TrackID
▶	1	Mohamed	Ali	+20106548...	mohamed.a...	Male	2002-08-25	7	1
	2	Hassan	Mahmoud	+20156325...	hassan.m@...	Male	2003-01-30	8	2
	3	Yara	Ahmed	+20125435...	yara.a@exa...	Female	2002-12-12	9	3
	4	Omar	Sherif	+20102345...	omar.s@exa...	Male	2003-03-03	10	1
	5	Nour	Tarek	+20112526...	nour.t@exa...	Female	2002-07-19	11	4
	6	Khaled	Ibrahim	+20152153...	khaled.i@ex...	Male	2003-05-22	12	2
	11	Youssef	Khaled	01098765432	youssef.khal...	Male	2003-11-20	17	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_DeleteStudent]
@StudentID = 12;
```

10. [TrainingManager].[SP_DeleteInstructor]

Purpose:

Safely deletes an instructor and all related data including their exams, questions, and assigned courses.

	InstructorID	FirstName	LastName	Phone	Email	Salary	Gender	DateOfBirth	UserID	BranchID
▶	1	Fatema	Zahran	+20101234...	fatema.z@e...	25000	Female	1985-05-20	3	1
	2	Sara	Adel	+20125556...	sara.a@exa...	30000	Female	1990-02-10	4	1
	3	Amr	Diab	+20109876...	amr.d@exa...	40000	Male	1982-11-15	5	2
	4	Akram	Ahmed	+20116523...	akram.a@ex...	35000	Male	1989-11-15	6	3
	12	Ali	Mahdy	01123456789	Ali.mahdy@...	7500	Male	1990-10-05	25	2
	14	Ahmed	Ali	01001122334	ahmed.ali@...	7000	Male	1990-03-20	28	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_DeleteInstructor]
@InstructorID = 14;
```

	InstructorID	FirstName	LastName	Phone	Email	Salary	Gender	DateOfBirth	UserID	BranchID
▶	1	Fatema	Zahran	+20101234...	fatema.z@e...	25000	Female	1985-05-20	3	1
	2	Sara	Adel	+20125556...	sara.a@exa...	30000	Female	1990-02-10	4	1
	3	Amr	Diab	+20109876...	amr.d@exa...	40000	Male	1982-11-15	5	2
	4	Akram	Ahmed	+20116523...	akram.a@ex...	35000	Male	1989-11-15	6	3
	12	Ali	Mahdy	01123456789	Ali.mahdy@...	7500	Male	1990-10-05	25	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

11. [TrainingManager].[SP_DeleteCourse]

Purpose:

Completely removes a course from the system along with all its related data (exams, questions, answers, instructor/student assignments), while preserving referential integrity.

	CourseID	CourseName	Description	MaxDegree	MinDegree
▶	1	SQL Server ...	A Compreh...	100	50
	2	C# Program...	Learn C# An...	100	50
	3	Web Develo...	Master The ...	100	50
	4	Python for ...	Explore Dat...	100	50
	5	Java Funda...	Learn The B...	100	50
	6	Front-End D...	Build Respo...	100	50
	7	SQL Server ...	A Compreh...	100	50
	8	C# Program...	Learn C# An...	100	50
	9	Web Develo...	Master The ...	100	50
	10	Python for ...	Explore Dat...	100	50
	11	Java Funda...	Learn The B...	100	50
	12	Front-End D...	Build Respo...	100	50
	13	Database S...	Introduction...	100	50
*	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_DeleteCourse]  
    @CourseID = 13
```

	CourseID	CourseName	Description	MaxDegree	MinDegree
▶	1	SQL Server Development	A Compreh...	100	50
	2	C# Programming	Learn C# An...	100	50
	3	Web Development (MERN)	Master The ...	100	50
	4	Python for Data Analysis	Explore Dat...	100	50
	5	Java Fundamentals	Learn The B...	100	50
	6	Front-End Development	Build Respo...	100	50
	7	SQL Server Development	A Compreh...	100	50
	8	C# Programming	Learn C# An...	100	50
	9	Web Development (MERN)	Master The ...	100	50
	10	Python for Data Analysis	Explore Dat...	100	50
	11	Java Fundamentals	Learn The B...	100	50
	12	Front-End Development	Build Respo...	100	50
*	NULL	NULL	NULL	NULL	NULL

12. [TrainingManager].[SP_DeleteTrack]

Purpose:

Deletes a track and all related data including students, exams, questions, and student-course associations—ensuring full cleanup in a safe transaction.

	TrackID	TrackName	IntakeID		TrackID	TrackName	IntakeID
▶	1	.NET Develo...	1	▶	1	.NET Develo...	1
	4	Data Science	3		4	Data Science	3
	5	Front-End D...	4		5	Front-End D...	4
	8	Full Stack .N...	5		3	Java Enterpr...	2
	3	Java Enterpr...	2		2	MERN Stack	1
	2	MERN Stack	1		6	Python Back...	5
	6	Python Back...	5				
*	NULL	NULL	NULL	*	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_DeleteTrack]
@TrackID = 8;
```

13.[TrainingManager].[SP_DeleteBranch]

Purpose:

Deletes a branch and all related data including its intakes, tracks, instructors, students, exams, student answers, and course registrations.

	BranchID	BranchName
▶	2	Alexandria
	4	Heliopolis
	3	Mansoura
	1	Smart Village
*	NULL	NULL

```
-- Example: Delete branch with ID = 2
EXEC SP_DeleteBranch @BranchID = 2;
```

14. [TrainingManager].[SP_DeleteIntake]

Purpose:

Deletes an intake and all related tracks, students, exams, answers, and course registrations.

	IntakeID	IntakeName	BranchID
▶	1	2024	1
	4	2025	3
	2	2026	2
	6	2027	3
	3	2028	1
	5	2029	2
	8	Intake 2025	3
*	NULL	NULL	NULL

	IntakeID	IntakeName	BranchID
▶	1	2024	1
	4	2025	3
	2	2026	2
	6	2027	3
	3	2028	1
	5	2029	2
*	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_DeleteIntake] @IntakeID = 8;
```

15. [TrainingManager].[SP_DeleteExam]

Purpose:

Deletes an exam and its related student answers and exam questions, only if the exam exists.

	ExamID	ExamType	StartTime	EndTime	TotalTime	CourseID	InstructorID	TrackID
	1	Exam	2024-08-01 ...	2024-08-01 ...	120	1	1	1
	2	Corrective	2024-08-15 ...	2024-08-15 ...	120	1	1	1
	3	Exam	2024-09-01 ...	2024-09-01 ...	120	3	2	2
	4	Exam	2026-03-10 ...	2026-03-10 ...	90	5	3	3
	5	Exam	2028-05-20 ...	2028-05-20 ...	120	4	1	4
	6	Exam	2025-04-15 ...	2025-04-15 ...	90	6	4	5
	7	Corrective	2025-10-15 ...	2025-10-15 ...	90	6	4	5
	8	Exam	2024-08-01 ...	2024-08-01 ...	120	1	1	1
	9	Corrective	2024-08-15 ...	2024-08-15 ...	120	1	1	1
	10	Exam	2024-09-01 ...	2024-09-01 ...	120	3	2	2
	11	Exam	2026-03-10 ...	2026-03-10 ...	90	5	3	3
	12	Exam	2028-05-20 ...	2028-05-20 ...	120	4	1	4
	13	Exam	2025-04-15 ...	2025-04-15 ...	90	6	4	5
▶	14	Corrective	2025-10-15 ...	2025-10-15 ...	90	6	4	5
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

	ExamID	ExamType	StartTime	EndTime	TotalTime	CourseID	InstructorID	TrackID
▶	1	Exam	2024-08-01 ...	2024-08-01 ...	120	1	1	1
	2	Corrective	2024-08-15 ...	2024-08-15 ...	120	1	1	1
	3	Exam	2024-09-01 ...	2024-09-01 ...	120	3	2	2
	4	Exam	2026-03-10 ...	2026-03-10 ...	90	5	3	3
	5	Exam	2028-05-20 ...	2028-05-20 ...	120	4	1	4
	6	Exam	2025-04-15 ...	2025-04-15 ...	90	6	4	5
	7	Corrective	2025-10-15 ...	2025-10-15 ...	90	6	4	5
	8	Exam	2024-08-01 ...	2024-08-01 ...	120	1	1	1
	9	Corrective	2024-08-15 ...	2024-08-15 ...	120	1	1	1
	10	Exam	2024-09-01 ...	2024-09-01 ...	120	3	2	2
	11	Exam	2026-03-10 ...	2026-03-10 ...	90	5	3	3
	12	Exam	2028-05-20 ...	2028-05-20 ...	120	4	1	4
	13	Exam	2025-04-15 ...	2025-04-15 ...	90	6	4	5
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_DeleteExam] @ExamID = 14;
```

16. [TrainingManager].[SP_EditBranch]

Purpose:

Updates the name of a branch, with validation against duplicates and non-existent branches.

	BranchID	BranchName
▶	2	Alexandria
	3	Mansoura
	1	Smart Village
*	NULL	NULL

	BranchID	BranchName
▶	3	Mansoura
	2	New Cairo
	1	Smart Village
*	NULL	NULL

```
EXEC [TrainingManager].[SP_EditBranch] @BranchID = 2, @BranchName = N'New Cairo';
```

17. [TrainingManager].[SP_EditIntake]

Purpose:

Edits intake name and/or branch, with validations on uniqueness and branch existence.

	IntakeID	IntakeName	BranchID
▶	1	2024	1
	4	2025	3
	2	2026	2
	6	2027	3
	3	2028	1
	5	2029	2
*	NULL	NULL	NULL

	IntakeID	IntakeName	BranchID
▶	1	2023	2
	4	2025	3
	2	2026	2
	6	2027	3
	3	2028	1
	5	2029	2
*	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_EditIntake]  
    @IntakeID = 1,  
    @IntakeName = N'Intake 2025',  
    @BranchID = 2;
```

18. [TrainingManager].[SP_EditTrack]

Purpose:

Updates the name and/or intake of a track, with validations on duplicates and intake existence.

	TrackID	TrackName	IntakeID
*	1	.NET Develo...	1
	4	Data Science	3
	5	Front-End D...	4
	3	Java Enterpr...	2
	2	MERN Stack	1
	6	Python Back...	5
*	NULL	NULL	NULL

	TrackID	TrackName	IntakeID
▶	4	Data Science	3
	5	Front-End D...	4
	1	Full Stack .N...	1
	3	Java Enterpr...	2
	2	MERN Stack	1
	6	Python Back...	5
*	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_EditTrack] @TrackID = 1, @TrackName = N'Full Stack .Net', @IntakeID = 1;
```

19. [TrainingManager].[SP_EditCourse]

Purpose:

Updates course details like name, description, max/min degrees, with proper validation.

	CourseID	CourseName	Description	MaxDegree	MinDegree
▶	1	SQL Server ...	A Compreh...	100	50
	2	C# Program...	Learn C# An...	100	50
	3	Web Develo...	Master The ...	100	50
	4	Python for ...	Explore Dat...	100	50
	5	Java Funda...	Learn The B...	100	50
	6	Front-End D...	Build Respo...	100	50
	7	SQL Server ...	A Compreh...	100	50
	8	C# Program...	Learn C# An...	100	50
	9	Web Develo...	Master The ...	100	50
	10	Python for ...	Explore Dat...	100	50
	11	Java Funda...	Learn The B...	100	50
	12	Front-End D...	Build Respo...	100	50
*	NULL	NULL	NULL	NULL	NULL

	CourseID	CourseName	Description	MaxDegree	MinDegree
▶	1	Python Programming	A Compreh...	100	50
	2	C# Programming	Learn C# An...	100	50
	3	Web Development (MERN)	Master The ...	100	50
	4	Python for Data Analysis	Explore Master The MERN Stack (MongoDB, E...		
	5	Java Fundamentals	Learn The B...	100	50
	6	Front-End Development	Build Respo...	100	50
	7	SQL Server Development	A Compreh...	100	50
	8	C# Programming	Learn C# An...	100	50
	9	Web Development (MERN)	Master The ...	100	50
	10	Python for Data Analysis	Explore Dat...	100	50
	11	Java Fundamentals	Learn The B...	100	50
	12	Front-End Development	Build Respo...	100	50
*	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_EditCourse] @CourseID = 1, @CourseName = N'Python Programming', @MaxDegree = 100, @MinDegree = 50;
```

20. [TrainingManager].[SP_EditInstructor]

Purpose:

Edits instructor info including name, contact, gender, birth date, and branch, with validations.

	InstructorID	FirstName	LastName	Phone	Email	Salary	Gender	DateOfBirth	UserID	BranchID
▶	1	Fatema	Zahran	+20101234...	fatema.z@e...	25000	Female	1985-05-20	3	1
	2	Sara	Adel	+20125556...	sara.a@exa...	30000	Female	1990-02-10	4	1
	3	Amr	Diab	+20109876...	amr.d@exa...	40000	Male	1982-11-15	5	2
	4	Akram	Ahmed	+20116523...	akram.a@ex...	35000	Male	1989-11-15	6	3
	12	Ali	Mahdy	01123456789	Ali.mahdy@...	7500	Male	1990-10-05	25	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_EditInstructor]
    @InstructorID = 5,
    @FirstName = N'Ahmed',
    @LastName = N'Salah',
    @Email = N'ahmed.salah@example.com',
    @Gender = N'Male',
    @DateOfBirth = '1990-05-12',
    @BranchID = 2;
```


InstructorID	FirstName	LastName	Phone	Email	Salary	Gender	DateOfBirth	UserID	BranchID
1	Fatema	Zahran	+20101234...	fatema.z@e...	25000	Female	1985-05-20	3	1
2	Sara	Adel	+20125556...	sara.a@exa...	30000	Female	1990-02-10	4	1
3	Amr	Diab	+20109876...	amr.d@exa...	40000	Male	1982-11-15	5	2
4	Ahmed	Salah	+20116523...	ahmed.sala...	35000	Male	1990-05-12	6	2
12	Ali	Mahdy	01123456789	Ali.mahdy@...	7500	Male	1990-10-05	25	2
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

21. [TrainingManager].[SP_EditStudent]

Purpose:

Updates student information including name, contact, gender, birth date, and track, with validations.

	StudentID	FirstName	LastName	Phone	Email	Gender	DateOfBirth	UserID	TrackID
▶	1	Mohamed	Ali	+20106548...	mohamed.a...	Male	2002-08-25	7	1
	2	Hassan	Mahmoud	+20156325...	hassan.m@...	Male	2003-01-30	8	2
	3	Yara	Ahmed	+20125435...	yara.a@exa...	Female	2002-12-12	9	3
	4	Omar	Sherif	+20102345...	or omar.s@example.com	Male	2003-03-03	10	1
	5	Nour	Tarek	+20112526...	nour.t@exa...	Female	2002-07-19	11	4
	6	Khaled	Ibrahim	+20152153...	khaled.i@ex...	Male	2003-05-22	12	2
	11	Youssef	Khaled	01098765432	youssef.khal...	Male	2003-11-20	17	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

	StudentID	FirstName	LastName	Phone	Email	Gender	DateOfBirth	UserID	TrackID
▶	1	Mohamed	Ali	+20106548...	mohamed.a...	Male	2002-08-25	7	1
	2	Mohamed	Mahmoud	+20156325...	mohamed...	Male	2003-01-30	8	3
	3	Yara	Ahmed	+20125435...	yara.a@exa...	Female	2002-12-12	9	3
	4	Omar	Sherif	+20102345...	omar.s@exa...	Male	2003-03-03	10	1
	5	Nour	Tarek	+20112526...	nour.t@exa...	Female	2002-07-19	11	4
	6	Khaled	Ibrahim	+20152153...	khaled.i@ex...	Male	2003-05-22	12	2
	11	Youssef	Khaled	01098765432	youssef.khal...	Male	2003-11-20	17	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_EditStudent]
    @StudentID = 15,
    @FirstName = N'Mohamed',
    @Email = N'mohamed@student.com',
    @Gender = N'Male',
    @TrackID = 3;
```


22. [TrainingManager].[SP_EnrollStudentInCourse]

Purpose:

Enrolls a student in a course if both exist and not already enrolled.

	StudentID	CourseID
▶	1	1
	4	1
	1	2
	4	2
	6	2
	1	3
	2	3
	3	3
	2	4
	5	4
	3	5
	6	5
	2	6
	6	6
*	NULL	NULL

	StudentID	CourseID
▶	1	1
	4	1
	1	2
	4	2
	6	2
	1	3
	2	3
	3	3
	2	4
	5	4
	3	5
	6	5
	1	6
	2	6
	6	6
*	NULL	NULL

```
EXEC [TrainingManager].[SP_EnrollStudentInCourse] @StudentID = 1, @CourseID = 6;
```

23. [TrainingManager].[SP_AssignInstructorToCourse]

Purpose:

Assigns an instructor to a course for a specific class and year, with duplicate prevention.

	Class	Year	InstructorID	CourseID
▶	A	2024	1	1
	A	2024	1	2
	B	2024	2	3
	D	2024	4	3
	C	2024	3	4
	C	2024	3	5
	B	2024	2	6
*	NULL	NULL	NULL	NULL

	Class	Year	InstructorID	CourseID
▶	A	2024	1	1
	A	2024	1	2
	B	2024	2	3
	D	2024	4	3
	C	2024	3	4
	C	2024	3	5
	B	2024	2	6
	A	2025	3	6
*	NULL	NULL	NULL	NULL

```
EXEC [TrainingManager].[SP_AssignInstructorToCourse]  
    @InstructorID = 3,  
    @CourseID = 6,  
    @Class = N'A',  
    @Year = 2025;
```

14. [Instructor].[SP_AddMCQQuestion]

Purpose:

Adds a new multiple-choice question (MCQ) for a course assigned to the current instructor. Validates course existence, instructor assignment, and correct answer format.

52	Database Manageme...	False	17	52	Database M...	False	17
53	Front-End UI Compo...	False	17	53	Front-End U...	False	17
54	Building The Back-En...	True	17	54	Building Th...	True	17
55	function	False	18	55	function	False	18
56	def	True	18	56	def	True	18
57	fun	False	18	57	fun	False	18
58	A JS Library For 3D Gr...	False	22	58	A JS Library ...	False	22
59	A Front-End Framew...	True	22	59	A Front-End...	True	22
60	A Back-End Database	False	22	60	A Back-End ...	False	22
*	NULL	NULL	NULL	61	Cairo	True	47
				62	Alexandria	False	47
				63	Giza	False	47
				*	NULL	NULL	NULL

```
EXEC [Instructor].[SP_AddMCQQuestion]
```

```
@QuestionText = N'What is the capital of Egypt?',  
@CourseID = 3,  
@CorrectAnswer = 'A',  
@ChoiceA = N'Cairo',  
@ChoiceB = N'Alexandria',  
@ChoiceC = N'Giza';
```

14. [Instructor].[SP_AddTrueFalseQuestion]

Purpose:

Adds a new True/False question to a course if the current instructor is assigned to it.

	QuestionID	CorrectAns...
▶	3	False
	5	True
	10	False
	14	True
	16	False
	21	False
	23	False
*	NULL	NULL

	QuestionID	CorrectAns...
▶	3	False
	5	True
	10	False
	14	True
	16	False
	21	False
	23	False
	48	True
*	NULL	NULL

```
EXEC [Instructor].[SP_AddTrueFalseQuestion]
    @QuestionText = N'Water boils at 100°C',
    @CourseID = 3,
    @CorrectAnswer = 1;
```

15. [Instructor].[SP_AddTextQuestion]

Purpose:

Adds a new open-ended text question to a course if the current instructor is assigned to it.

	QuestionID	BestAcceptedAnswer
▶	4	C# Is A Modern, Object-Oriented, And Type-Safe Programming Language.
	8	The Virtual DOM (VDOM) Is A Programming Concept Where A Virtual Representation Of A UI Is Kept In M...
	12	`let` Allows Reassignment Of Variables, While `const` Declares A Constant Variable That Cannot Be Reassig...
	13	DELETE is a DML command that removes rows one by one and can be rolled back. TRUNCATE is a DDL co...
	19	A dictionary in Python is an unordered collection of data values, used to store data values like a map, whic...
	20	The Java Virtual Machine (JVM) is an abstract machine that enables a computer to run a Java program.
*	NULL	NULL

	QuestionID	BestAcceptedAnswer
▶	4	C# Is A Modern, Object-Oriented, And Type-Safe Programming Language.
	8	The Virtual DOM (VDOM) Is A Programming Concept Where A Virtual Representation Of A UI Is Kept In M...
	12	`let` Allows Reassignment Of Variables, While `const` Declares A Constant Variable That Cannot Be Reassig...
	13	DELETE is a DML command that removes rows one by one and can be rolled back. TRUNCATE is a DDL co...
	19	A dictionary in Python is an unordered collection of data values, used to store data values like a map, whic...
	20	The Java Virtual Machine (JVM) is an abstract machine that enables a computer to run a Java program.
	49	Photosynthesis is the process by which green plants convert sunlight into chemical energy...
*	NULL	NULL

```
EXEC [Instructor].[SP_AddTextQuestion]
```

```
    @QuestionText = N'Describe the process of photosynthesis',
```

```
    @CourseID = 3,
```

```
    @BestAnswer = N'Photosynthesis is the process by which green plants convert sunlight into chen
```

16. [Instructor].[SP_InstructorCreateExamManually]

Purpose:

Allows an instructor to manually create an exam with custom questions and assigned degrees.

17. [Instructor].[SP_GetUnGradedTextAnswers]

Purpose:

Retrieves all ungraded text answers submitted by students for exams created by the currently logged-in instructor.

18. [Instructor].[SP_GradeTextAnswer]

Purpose:

Allows an instructor to assign a score to a student's answer for a specific text question in an exam they created.

19. [Instructor].[SP_GetRandomQuestions]

Purpose:

Retrieves a random set of questions (MCQ, True/False, and Text) for a given course, only if the instructor is assigned to teach that course.

	QuestionID	QuestionText	QuestionType	CourseID	Choices	CorrectAnswer
1	24	What Does SQL Stand For?	MCQ	1	NULL	NULL
2	47	What is the capital of Egypt?	MCQ	1	A) Cairo B) Alexandria C) Giza	A
3	36	What Is The Difference Between DELETE And TRUNCAT...	Text	1	NULL	Manual Grading Required
4	37	The 'JOIN' Clause Is Used To Combine Rows From Two...	TF	1	NULL	NULL

```
EXEC [Instructor].[SP_GetRandomQuestions]
```

```
@CourseID = 3,
```

```
@MCQCount = 2,
```

```
@TFCount = 1,
```

```
@TextCount = 1;
```

- 22. [Instructor].[SP_EditQuestion]

- **Purpose:** Allows an instructor to edit the text of a question only if it hasn't been used in any exam

	46	`<div>` Is An Inline Element In HTML.	TF	6
	47	What is the capital of Egypt?	MCQ	1
	48	Water boils at 100°C	TF	1
	49	Describe the process of photosynthesis	Text	2
*	NULL	NULL	NULL	NULL

	45	What Is Bootstrap?	MCQ	6
	46	`<div>` Is An Inline Element In HTML.	TF	6
	47	What is the capital of Egypt?	MCQ	1
▶	48	What is the capital of France?	TF	1
	49	Describe the process of photosynthesis	Text	2
*	NULL	NULL	NULL	NULL

```
EXEC [Instructor].[SP_EditQuestion]
```

```
    @QuestionID = 10,  
    @NewQuestionText = N'What is the capital of France?';
```

23. [Instructor].[SP_DeleteQuestion]

- **Purpose:** Deletes a question (and its related data) if it's not used in any exam and belongs to one of the instructor's courses.

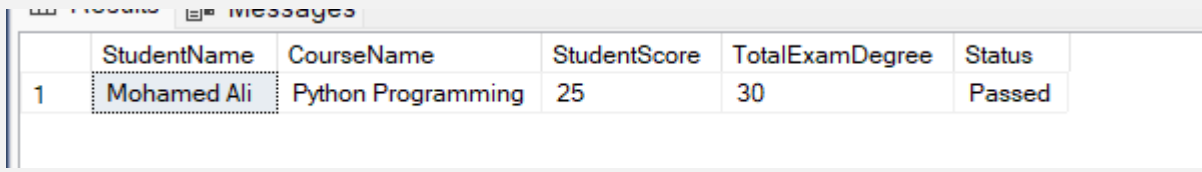
	45	What Is Bootstrap?	MCQ	6
	46	`<div>` Is An Inline Element In HTML.	TF	6
	47	What is the capital of Egypt?	MCQ	1
▶	48	What is the capital of France?	TF	1
	49	Describe the process of photosynthesis	Text	2
*	NULL	NULL	NULL	NULL

	45	What Is Bootstrap?	MCQ	6
	46	`<div>` Is An Inline Element In HTML.	TF	6
	47	What is the capital of Egypt?	MCQ	1
	49	Describe the process of photosynthesis	Text	2
*	NULL	NULL	NULL	NULL

```
EXEC [Instructor].[SP_DeleteQuestion]  
    @QuestionID = 48;
```

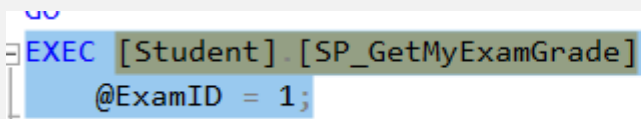

25. [Student].[SP_GetMyExamGrade]

- **Purpose:** Retrieves the student's grade details for a specific exam, including score, total degree, and pass/fail status.



A screenshot of a database table with columns: StudentName, CourseName, StudentScore, TotalExamDegree, and Status. The table contains one row with the following data: StudentName: Mohamed Ali, CourseName: Python Programming, StudentScore: 25, TotalExamDegree: 30, Status: Passed.

	StudentName	CourseName	StudentScore	TotalExamDegree	Status
1	Mohamed Ali	Python Programming	25	30	Passed



A screenshot of a SQL query in a code editor. The query is: EXEC [Student].[SP_GetMyExamGrade] @ExamID = 1;

```
EXEC [Student].[SP_GetMyExamGrade]  
@ExamID = 1;
```

24. [Student].[SP_SubmitMyAnswer]

- **Purpose:** Allows a student to submit or update their answer for a specific question in a given exam, only if the exam is currently active and the student is enrolled in the exam's track.

• 25. [Student].[SP_EnterExam]

- **Purpose:** Allows a student to enter an active exam and view the questions along with their choices (for MCQ/TF types), ensuring the student is enrolled in the correct track and within the allowed exam time.

عبد الرحمن علاء السيد:

View Name	Schema	Type
VW_TrackReport	TrainingManager	View
VW_CoursesReport	TrainingManager	View
VW_StudentReport	TrainingManager	View
VW_AllExamsReport	TrainingManager	View
VW_SystemSummaryReport	TrainingManager	View
VW_QuestionReport	TrainingManager	View
VW_CourseQuestionPool	TrainingManager	View
VW_MyProfile	Instructor	View
VW_MyExams	Instructor	View
VW_MyQuestions	Instructor	View
VW_MyQuestionsWithAnswers	Instructor	View
VW_MyStudentsAnswersDetails	Instructor	View
VW_MyUnusedQuestions	Instructor	View
VW_AvailableExams	Student	View
VW_MyResults	Student	View

Stored Procedure Name	Schema	Type
SP_LoginForUser	Admin	Stored Procedure
SP_EditUser	Admin	Stored Procedure
SP_DeleteUser	Admin	Stored Procedure
SP_AddNewStudent	TrainingManager	Stored Procedure
SP_DeleteStudent	TrainingManager	Stored Procedure
SP_DeleteInstructor	TrainingManager	Stored Procedure
SP_SP_DailyBackup	-----	Stored Procedure
SP_DeleteTrack	TrainingManager	Stored Procedure
SP_DeleteIntake	TrainingManager	Stored Procedure
SP_DeleteExam	TrainingManager	Stored Procedure
SP_EditBranch	TrainingManager	Stored Procedure
SP_EditIntake	TrainingManager	Stored Procedure
SP_EditTrack	TrainingManager	Stored Procedure
SP_EditCourse	TrainingManager	Stored Procedure
SP_EditInstructor	TrainingManager	Stored Procedure
SP_EditStudent	TrainingManager	Stored Procedure
SP_EnrollStudentInCourse	TrainingManager	Stored Procedure
SP_AssignInstructorToCourse	TrainingManager	Stored Procedure
SP_InstructorCreateExamManually	Instructor	Stored Procedure
SP_AutoGradeExam	Instructor	Stored Procedure
SP_EditQuestion	Instructor	Stored Procedure
SP_GetMyQuestions	Instructor	Stored Procedure
SP_DeleteQuestion	Instructor	Stored Procedure
SP_SubmitMyAnswer	Student	Stored Procedure
SP_EnterExam	Student	Stored Procedure

View Name	Schema	Type
VW_BranchReport	TrainingManager	View
VW_IntakeReport	TrainingManager	View
VW_InstructorReport	TrainingManager	View
VW_StudentReportMore	TrainingManager	View
VW_StudentExamReport	TrainingManager	View
VW_MyStudents	Instructor	View
VW_MyStudentsResults	Instructor	View
VW_MyProfile	Student	View

Procedure Name	Schema	Type
SP_AddNewInstructor	TrainingManager	Stored Procedure
SP_AddNewBranch	TrainingManager	Stored Procedure
SP_AddNewIntake	TrainingManager	Stored Procedure
SP_AddNewTrack	TrainingManager	Stored Procedure
SP_AddMCQQuestion	Instructor	Stored Procedure
SP_AddTrueFalseQuestion	Instructor	Stored Procedure
SP_AddTextQuestion	Instructor	Stored Procedure
SP_GetUnGradedTextAnswers	Instructor	Stored Procedure
SP_GetRandomQuestions	Instructor	Stored Procedure
SP_GetMyExamGrade	Student	Stored Procedure

SP_DeleteCourse	TrainingManager	Stored Procedure
VW_MyCourses	Instructor	View