# **Online-Examination-system**

# **Online-Examination-System**



Server DESKTOP-EKCK12U

Author Team (7)

Created Tuesday, February 28, 2023 3:24:24 PM

File Path C:\Users\RadwaElgammal\Desktop\(local)\_\_documentation-2023-02-28T15-24-24.pdf

Online Examination System which enables instructors to generate exams according to their courses and decide how many questions will be in the exam and take student answers and calculate grades to each student

# **Table of Contents**

able of Contents	2
DESKTOP-EKCK12U	5
User databases	7
Online-Examination-System Database	8
Tables	11
[dbo].[Courses]	12
[dbo].[Department]	14
[dbo].[Exam_Questions]	16
[dbo].[Exams]	18
[dbo].[Instructor]	20
[dbo].[Instructor_Course]	22
[dbo].[Question_Choice]	24
[dbo].[Questions]	26
[dbo].[Student]	28
[dbo].[Student_Course]	30
[dbo].[Student_Exam_Question]	32
[dbo].[Topic]	34
[dbo].[Work_In]	36
Stored Procedures	38
[dbo].[Add_Student]	40
[dbo].[Add_StudentGarde]	42
[dbo].[addCourse]	44
[dbo].[addDepartment]	45
[dbo].[AddInstructor]	46
[dbo].[addInstructorCourse]	47
[dbo].[addTopic]	48
[dbo].[AddWorkIn]	49
[dbo].[courseTopics]	50
[dbo].[CreateExam]	51
[dbo].[Delete_All_Students]	53
[dbo].[delete_garde]	54
[dbo].[Delete_Student_By_ld]	55
[dbo].[delete_student_course]	56
[dbo].[deleteCourse]	57
[dbo].[deleteDepartment]	58
[dbo].[deleteExamByCrsId]	59
[dbo].[DeleteExamByID]	61

[dbo].[deleteInstructorByID]	.63
[dbo].[deleteInstructorCourses]	.64
[dbo].[deleteQuestion]	.66
[dbo].[deleteTopicByCrsId]	.67
[dbo].[deleteTopicById]	.68
[dbo].[deleteWorkInByDepId]	.69
[dbo].[deleteWorkInByDepIdAndInsId]	.70
[dbo].[deleteWorkInByInsId]	.71
[dbo].[departmentStudents]	.72
[dbo].[Exam_Correction]	.73
[dbo].[Exam_Student_Answers]	.76
[dbo].[Get_All_Exams]	.77
[dbo].[Get_All_Students]	.79
[dbo].[Get_Student_By_Email]	.80
[dbo].[Get_Student_By_Id]	.81
[dbo].[Get_Student_Course]	.82
[dbo].[Get_Student_Course_by_CourseId]	.83
[dbo].[Get_Student_Course_by_StudentId]	.84
[dbo].[getExam]	.85
[dbo].[getInstructor]	
	.87
[dbo].[getInstructor]	.87 .89
[dbo].[getInstructor]	.87 .89 .91
[dbo].[getInstructor] [dbo].[getInstructorCourses] [dbo].[getQuestion]	.87 .89 .91
[dbo].[getInstructor] [dbo].[getInstructorCourses] [dbo].[getQuestion] [dbo].[GetTopicData]	.87 .89 .91 .93
[dbo].[getInstructor] [dbo].[getInstructorCourses] [dbo].[getQuestion] [dbo].[GetTopicData] [dbo].[getWorkIn]	.87 .89 .91 .93 .95
[dbo].[getInstructor] [dbo].[getQuestion]. [dbo].[GetTopicData] [dbo].[getWorkIn]. [dbo].[insertQuestion]	.87 .89 .91 .93 .95 .97
[dbo].[getInstructor] [dbo].[getQuestion] [dbo].[GetTopicData] [dbo].[getWorkIn] [dbo].[insertQuestion] [dbo].[instructorCourses]	.87 .89 .91 .93 .95 .97
[dbo].[getInstructor] [dbo].[getQuestion] [dbo].[GetTopicData] [dbo].[getWorkIn] [dbo].[insertQuestion] [dbo].[instructorCourses]	.87 .89 .91 .93 .95 .97 .99
[dbo].[getInstructor] [dbo].[getQuestion] [dbo].[GetTopicData] [dbo].[getWorkIn] [dbo].[insertQuestion] [dbo].[instructorCourses] [dbo].[PrintExam] [dbo].[selectCourse]	.87 .89 .91 .93 .95 .97 .99 100 101
[dbo].[getInstructorOurses]	.87 .89 .91 .93 .95 .97 .99 100 101 102
[dbo].[getInstructorCourses].  [dbo].[getQuestion]  [dbo].[getWorkIn]  [dbo].[insertQuestion]  [dbo].[instructorCourses]  [dbo].[PrintExam]  [dbo].[selectCourse]  [dbo].[selectDepartment]	.87 .89 .91 .93 .95 .97 .99 100 101 102 103
[dbo].[getInstructorCourses]	.87 .89 .91 .93 .95 .97 .99 100 101 102 103 106
[dbo].[getInstructorCourses]  [dbo].[getQuestion]  [dbo].[GetTopicData]  [dbo].[getWorkIn]  [dbo].[insertQuestion]  [dbo].[instructorCourses]  [dbo].[PrintExam]  [dbo].[selectCourse]  [dbo].[selectCourse]  [dbo].[studentExamAnswers]  [dbo].[StudentGrades]	.87 .89 .91 .93 .95 .97 .99 100 101 102 103 106 107
[dbo].[getInstructorCourses]	.87 .89 .91 .93 .95 .97 .99 100 101 102 103 106 107
[dbo].[getInstructorCourses]	.87 .89 .91 .93 .95 .97 .99 100 101 102 103 106 107 110 111
[dbo].[getInstructor]   [dbo].[getQuestion]   [dbo].[getTopicData]   [dbo].[getWorkIn]   [dbo].[insertQuestion]   [dbo].[instructorCourses]   [dbo].[PrintExam]   [dbo].[selectCourse]   [dbo].[selectDepartment]   [dbo].[StudentExamAnswers]   [dbo].[studentGrades]   [dbo].[Update_Student_By_ld]   [dbo].[update_student_grade]   [dbo].[updateCourse]   [dbo].[updateCourse]	.87 .89 .91 .93 .95 .97 .99 100 101 102 103 106 110 111 111

	[dbo].[updateQuestionByID]	118
	[dbo].[updateTopic]	
	[dbo].[updateWorkIn]	
2	Users	
	<b>1</b> dbo	
	<b>1</b> guest	127
	<b>▲</b> Instructor_Mohammed	
	\$\blue{\Pi} \text{Student_A} \tag{\text{Student_A}}	
Q.	Database Roles	
	db_accessadmin	130
	db_backupoperator	130
	db_datareader	131
	db_datawriter	
	db_ddladmin	131
	db_denydatareader	
	db_denydatawriter	132
	db_owner	
	db_securityadmin	
	public	

# **DESKTOP-EKCK12U**

## Databases (1)

Online-Examination-System

## **Server Properties**

Property	Value
Product	Microsoft SQL Server
Version	14.0.2047.8
Language	English (United States)
Platform	NT x64
Edition	Developer Edition (64-bit)
Engine Edition	3 (Enterprise)
Processors	8
OS Version	6.3 (22621)
Physical Memory	8057
Is Clustered	False
Root Directory	C:\Program Files\Microsoft SQL Server\MSSQL14.MSSQLSERVER\MSSQL
Collation	SQL_Latin1_General_CP1_CI_AS

## **Server Settings**

Property	Value
Default data file path	C:\Program Files\Microsoft SQL Server\MSSQL14.MSSQLSERVER\MSSQL\DATA\
Default backup file path	C:\Program Files\Microsoft SQL Server\MSSQL14.MSSQLSERVER\MSSQL\Backup
Default log file path	C:\Program Files\Microsoft SQL Server\MSSQL14.MSSQLSERVER\MSSQL\DATA\
Recovery Interval (minutes)	0
Default index fill factor	0
Default backup media retention	0
Compress Backup	False

## **Advanced Server Settings**

Property	Value
Locks	0
Nested triggers enabled	True

Allow triggers to fire others	True
Default language	English
Network packet size	4096
Default fulltext language LCID	1033
Two-digit year cutoff	2049
Remote login timeout	10
Cursor threshold	-1
Max text replication size	65536
Parallelism cost threshold	5
Max degree of parallelism	0
Min server memory	16
Max server memory	2147483647
Scan for startup procs	False
Transform noise words	False
CLR enabled	False
Blocked process threshold	0
Filestream access level	False
Optimize for ad hoc workloads	False
CLR strict security	True

# ☐ User databases

Databases (1)

Online-Examination-System

# **☐ Online-Examination-System Database**

## **Database Properties**

Property	Value
SQL Server Version	SQL Server 2017
Compatibility Level	SQL Server 2017
Last backup time	-
Last log backup time	-
Creation date	Feb 20 2023
Users	6
Database Encryption Enabled	False
Database Encryption Algorithm	None
Database size	16.00 MB
Unallocated space	3.55 MB

# **Database Options**

Property	Value
Compatibility Level	140
Database collation	SQL_Latin1_General_CP1_CI_AS
Restrict access	MULTI_USER
Is read-only	False
Auto close	False
Auto shrink	False
Database status	ONLINE
In standby	False
Cleanly shutdown	False
Supplemental logging enabled	False
Snapshot isolation state	OFF
Read committed snapshot on	False
Recovery model	FULL
Page verify option	CHECKSUM
Auto create statistics	True
Auto update statistics	True
Auto update statistics asynchronously	False
ANSI NULL default	False
ANSI NULL enabled	False
ANSI padding enabled	False

ANSI warnings enabled	False
Arithmetic abort enabled	False
Concatenating NULL yields NULL	False
Numeric roundabort enabled	False
Quoted Identifier On	False
Recursive triggers enabled	False
Close cursors on commit	False
Local cursors by default	False
Fulltext enabled	True
Trustworthy	False
Database chaining	False
Forced parameterization	False
Master key encrypted by server	False
Published	False
Subscribed	False
Merge published	False
Is distribution database	False
Sync with backup	False
Service broker GUID	ff7e174e-1ea2-4ca3-af2d-bb8e9603af30
Service broker enabled	False
Log reuse wait	NOTHING
Date correlation	False
CDC enabled	False
Encrypted	False
Honor broker priority	False
Default language	English
Default fulltext language LCID	1033
Nested triggers enabled	True
Transform noise words	False
Two-digit year cutoff	2049
Containment	NONE
Target recovery time	60
Database owner	DESKTOP-EKCK12U\RadwaElgammal

# Files

Name	Туре	Size	Maxsize	Autogrowth	File Name
Online-Examination-System	Data	8.00 MB	unlimited	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL14.MSS QLSERVER\MSSQL\DA TA\Online-Examination- System.mdf

Online-Examination-System_log	Log	8.00 MB	2048.00 GB	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL14.MSS QLSERVER\MSSQL\DA TA\Online-Examination- System_log.ldf
-------------------------------	-----	---------	------------	----------	---

# **■ Tables**

# Objects

Name
dbo.Courses
dbo.Department
dbo.Exam_Questions
dbo.Exams
dbo.Instructor
dbo.Instructor_Course
dbo.Question_Choice
dbo.Questions
dbo.Student
dbo.Student_Course
dbo.Student_Exam_Question
dbo.Topic
dbo.Work_In

# [dbo].[Courses]

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	8
Created	5:07:50 PM Monday, February 20, 2023
Last Modified	12:53:39 AM Monday, February 27, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	Crs_id	int	4	NOT NULL
	Name	varchar(50)	50	NULL allowed
	Duration	int	4	NULL allowed
	Description	varchar(200)	200	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique	
PKP G	PK_Courses	Crs_id	True	

# **SQL Script**

```
CREATE TABLE [dbo].[Courses]

(
[Crs_id] [int] NOT NULL,

[Name] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Duration] [int] NULL,

[Description] [varchar] (200) COLLATE SQL_Latin1_General_CP1_CI_AS NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Courses] ADD CONSTRAINT [PK_Courses] PRIMARY KEY CLUSTERED

([Crs_id]) ON [PRIMARY]

GO
```

### **Used By**

[dbo].[Exams]
[dbo].[Instructor\_Course]

[dbo].[Questions]

[dbo].[Student\_Course]

[dbo].[Topic]

[dbo].[addCourse]

[dbo].[courseTopics]

[dbo].[CreateExam]

[dbo].[deleteCourse]

[dbo].[getInstructorCourses]

[dbo].[instructorCourses]

[dbo].[studentGrades]

[dbo].[updateCourse]

# [dbo].[Department]

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	5
Created	5:07:50 PM Monday, February 20, 2023
Last Modified	10:56:18 AM Sunday, February 26, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	Did	int	4	NOT NULL
	Dname	varchar(50)	50	NULL allowed
	Description	varchar(200)	200	NULL allowed
	Location	nvarchar(200)	400	NULL allowed
FK	Mng_id	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PKP C	PK_Department	Did	True

## Foreign Keys

Name	Update	Delete	Columns
FK_Department_Instructor	Cascade	SetNull	Mng_id->[dbo].[Instructor].[Ins_id]

```
CREATE TABLE [dbo].[Department]
(
[Did] [int] NOT NULL,
[Dname] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Description] [varchar] (200) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Location] [nvarchar] (200) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Mng_id] [int] NULL
) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[Department] ADD CONSTRAINT [PK_Department] PRIMARY KEY CLUSTERED

([Did]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Department] ADD CONSTRAINT [FK_Department_Instructor] FOREIGN KEY

([Mng_id]) REFERENCES [dbo].[Instructor] ([Ins_id]) ON DELETE SET NULL ON UPDATE

CASCADE

GO
```

[dbo].[Instructor]

#### **Used By**

[dbo].[Student]

[dbo].[Work\_In]

[dbo].[addDepartment]

[dbo].[deleteDepartment]

[dbo].[departmentStudents]

[dbo].[updateDepartment]

# [dbo].[Exam\_Questions]

### **Properties**

Property	Value
Row Count (~)	80
Created	10:56:11 AM Sunday, February 26, 2023
Last Modified	12:53:39 AM Monday, February 27, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	Exm_id	int	4	NOT NULL
PKC FKG	Qst_id	int	4	NOT NULL

#### **Indexes**

Key	Name	Key Columns	Unique
PKP C	PK_Exam_Questions	Exm_id, Qst_id	True

### Foreign Keys

Name	Columns
FK_Exam_Questions_Exams	Exm_id->[dbo].[Exams].[Exm_id]
FK_Exam_Questions_Questions	Qst_id->[dbo].[Questions].[Qst_id]

```
CREATE TABLE [dbo].[Exam_Questions]

(
[Exm_id] [int] NOT NULL,

[Qst_id] [int] NOT NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Exam_Questions] ADD CONSTRAINT [PK_Exam_Questions] PRIMARY KEY

CLUSTERED ([Exm_id], [Qst_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Exam_Questions] ADD CONSTRAINT [FK_Exam_Questions_Exams] FOREIGN KEY

([Exm_id]) REFERENCES [dbo].[Exams] ([Exm_id])
```

```
GO
ALTER TABLE [dbo].[Exam_Questions] ADD CONSTRAINT [FK_Exam_Questions_Questions] FOREIGN
KEY ([Qst_id]) REFERENCES [dbo].[Questions] ([Qst_id])
GO
```

[dbo].[Exams] [dbo].[Questions]

#### **Used By**

[dbo].[CreateExam]
[dbo].[deleteExamByCrsId]

[dbo].[DeleteExamByID]

[dbo].[getExam]

[dbo].[PrintExam]

[dbo].[StudentExamAnswers]

# [dbo].[Exams]

#### **Properties**

Property	Value
Row Count (~)	20
Created	10:56:11 AM Sunday, February 26, 2023
Last Modified	12:53:39 AM Monday, February 27, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PKP C	Exm_id	int	4	NOT NULL	1 - 1
	Duration	int	4	NULL allowed	
FK	Crs_id	int	4	NULL allowed	
	Date	date	3	NULL allowed	

#### Indexes

Key	Name	Key Columns	Unique
PK	PK_Exams	Exm_id	True

### Foreign Keys

Name	Columns
FK_Exams_Courses	Crs_id->[dbo].[Courses].[Crs_id]

```
CREATE TABLE [dbo].[Exams]

(
[Exm_id] [int] NOT NULL IDENTITY(1, 1),
[Duration] [int] NULL,
[Crs_id] [int] NULL,

[Date] [date] NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Exams] ADD CONSTRAINT [PK_Exams] PRIMARY KEY CLUSTERED ([Exm_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Exams] ADD CONSTRAINT [FK_Exams_Courses] FOREIGN KEY ([Crs_id])
```

```
REFERENCES [dbo].[Courses] ([Crs_id])

GO
```

[dbo].[Courses]

### **Used By**

[dbo].[Exam\_Questions]

[dbo].[Student\_Exam\_Question]

[dbo].[CreateExam]

[dbo].[deleteExamByCrsId]

[dbo].[DeleteExamByID]

[dbo].[Exam\_Correction]

[dbo].[Get\_All\_Exams]

[dbo].[PrintExam]

[dbo].[StudentExamAnswers]

[dbo].[updateExam]

# [dbo].[Instructor]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	7
Created	5:07:50 PM Monday, February 20, 2023
Last Modified	10:56:18 AM Sunday, February 26, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	Ins_id	int	4	NOT NULL
	Fname	varchar(50)	50	NULL allowed
	Lname	varchar(50)	50	NULL allowed
	Academics_Degree	varchar(100)	100	NULL allowed
	Salary	int	4	NULL allowed
	Address	varchar(200)	200	NULL allowed
	Phone	int	4	NULL allowed
FK	Super_id	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK G	PK_Instructor	Ins_id	True

### Foreign Keys

Name	Columns
FK_Instructor_Instructor1	Super_id->[dbo].[Instructor].[Ins_id]

```
CREATE TABLE [dbo].[Instructor]

(
[Ins_id] [int] NOT NULL,

[Fname] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Lname] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
```

```
[Academics_Degree] [varchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Salary] [int] NULL,

[Address] [varchar] (200) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Phone] [int] NULL,

[Super_id] [int] NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Instructor] ADD CONSTRAINT [PK_Instructor] PRIMARY KEY CLUSTERED

([Ins_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Instructor] ADD CONSTRAINT [FK_Instructor_Instructor1] FOREIGN KEY

([Super_id]) REFERENCES [dbo].[Instructor] ([Ins_id])

GO
```

#### **Used By**

[dbo].[Department]

[dbo].[Instructor\_Course]

[dbo].[Work\_In]

[dbo].[AddInstructor]

[dbo].[deleteInstructorByID]

[dbo].[getInstructor]

[dbo].[getInstructorCourses]

[dbo].[instructorCourses]

[dbo].[updateInstructoByID]

# [dbo].[Instructor\_Course]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	10
Created	5:07:50 PM Monday, February 20, 2023
Last Modified	10:56:18 AM Sunday, February 26, 2023

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	Ins_id	int	4	NOT NULL
PKO FKO	Crs_id	int	4	NOT NULL
	Evaluation	varchar(150)	150	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK G	PK_Instructor_Course	Ins_id, Crs_id	True

#### Foreign Keys

Name	Update	Delete	Columns
FK_Instructor_Course_Courses			Crs_id->[dbo].[Courses].[Crs_id]
FK_Instructor_Course_Instructor	Cascade	Cascade	Ins_id->[dbo].[Instructor].[Ins_id]

```
CREATE TABLE [dbo].[Instructor_Course]

(
[Ins_id] [int] NOT NULL,
[Crs_id] [int] NOT NULL,

[Evaluation] [varchar] (150) COLLATE SQL_Latin1_General_CP1_CI_AS NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Instructor_Course] ADD CONSTRAINT [PK_Instructor_Course] PRIMARY KEY
```

```
CLUSTERED ([Ins_id], [Crs_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Instructor_Course] ADD CONSTRAINT [FK_Instructor_Course_Courses]

FOREIGN KEY ([Crs_id]) REFERENCES [dbo].[Courses] ([Crs_id])

GO

ALTER TABLE [dbo].[Instructor_Course] ADD CONSTRAINT [FK_Instructor_Course_Instructor]

FOREIGN KEY ([Ins_id]) REFERENCES [dbo].[Instructor] ([Ins_id]) ON DELETE CASCADE ON UPDATE CASCADE

GO
```

[dbo].[Courses] [dbo].[Instructor]

### **Used By**

[dbo].[addInstructorCourse] [dbo].[deleteInstructorCourses] [dbo].[getInstructorCourses] [dbo].[instructorCourses] [dbo].[updateInstructorCourse]

# [dbo].[Question\_Choice]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	186
Created	5:07:50 PM Monday, February 20, 2023
Last Modified	12:53:39 AM Monday, February 27, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	Qst_id	int	4	NOT NULL
PK C	Choice	varchar(150)	150	NOT NULL
	choiceID	varchar(2)	2	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PKP C	PK_Question_Choice_1	Qst_id, Choice	True

### Foreign Keys

Name	Columns
FK_Question_Choice_Questions	Qst_id->[dbo].[Questions].[Qst_id]

```
CREATE TABLE [dbo].[Question_Choice]

(
[Qst_id] [int] NOT NULL,
[Choice] [varchar] (150) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[choiceID] [varchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Question_Choice] ADD CONSTRAINT [PK_Question_Choice_1] PRIMARY KEY
CLUSTERED ([Qst_id], [Choice]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Question_Choice] ADD CONSTRAINT [FK_Question_Choice_Questions]
```

```
FOREIGN KEY ([Qst_id]) REFERENCES [dbo].[Questions] ([Qst_id])

GO
```

[dbo].[Questions]

**Used By** 

[dbo].[deleteQuestion]

[dbo].[getQuestion]

[dbo].[insertQuestion]

[dbo].[PrintExam]

[dbo].[updateQuestionByID]

# [dbo].[Questions]

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	62
Created	12:53:39 AM Monday, February 27, 2023
Last Modified	12:53:39 AM Monday, February 27, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	Qst_id	int	4	NOT NULL
FK	Crs_id	int	4	NULL allowed
	Question	varchar(200)	200	NULL allowed
	Туре	varchar(50)	50	NULL allowed
	Model_Answer	char(1)	1	NULL allowed
	Qst_Grade	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK	PK_Questions	Qst_id	True

### Foreign Keys

Name		Columns
FK_Questions_Co	purses	Crs_id->[dbo].[Courses].[Crs_id]

```
CREATE TABLE [dbo].[Questions]

(
[Qst_id] [int] NOT NULL,
[Crs_id] [int] NULL,
[Question] [varchar] (200) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Type] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Model_Answer] [char] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Qst_Grade] [int] NULL
```

```
ON [PRIMARY]

GO

ALTER TABLE [dbo].[Questions] ADD CONSTRAINT [PK_Questions] PRIMARY KEY CLUSTERED

([Qst_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Questions] ADD CONSTRAINT [FK_Questions_Courses] FOREIGN KEY

([Crs_id]) REFERENCES [dbo].[Courses] ([Crs_id])

GO
```

#### [dbo].[Courses]

#### **Used By**

[dbo].[Exam\_Questions]
[dbo].[Question\_Choice]
[dbo].[Student\_Exam\_Question]
[dbo].[CreateExam]
[dbo].[deleteQuestion]
[dbo].[Exam\_Correction]
[dbo].[Exam\_Student\_Answers]
[dbo].[getQuestion]
[dbo].[insertQuestion]
[dbo].[PrintExam]

[dbo].[updateQuestionByID]

# [dbo].[Student]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	4
Created	10:44:12 PM Monday, February 20, 2023
Last Modified	12:53:39 AM Monday, February 27, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK G	Stu_id	int	4	NOT NULL
	Fname	varchar(50)	50	NULL allowed
	Lname	varchar(50)	50	NULL allowed
	Phone	int	4	NULL allowed
	Email	varchar(50)	50	NULL allowed
	Address	varchar(50)	50	NULL allowed
FK	Leader_id	int	4	NULL allowed
FK	Did	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PKP G	PK_Student	Stu_id	True

## Foreign Keys

Name	Columns
FK_Student_Department	Did->[dbo].[Department].[Did]
FK_Student_Leader	Leader_id->[dbo].[Student].[Stu_id]

```
CREATE TABLE [dbo].[Student]

(
[Stu_id] [int] NOT NULL,

[Fname] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
```

```
[Lname] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Phone] [int] NULL,

[Email] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Address] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Leader_id] [int] NULL,

[Did] [int] NULL,

[Did] [int] NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Student] ADD CONSTRAINT [PK_Student] PRIMARY KEY CLUSTERED

([Stu_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Student] ADD CONSTRAINT [FK_Student_Department] FOREIGN KEY ([Did])

REFERENCES [dbo].[Department] ([Did])

GO

ALTER TABLE [dbo].[Student] ADD CONSTRAINT [FK_Student_Leader] FOREIGN KEY

([Leader_id]) REFERENCES [dbo].[Student] ([Stu_id])

GO
```

#### [dbo].[Department]

#### **Used By**

```
[dbo].[Student_Course]
[dbo].[Student_Exam_Question]
[dbo].[Add_Student]
[dbo].[Delete_All_Students]
[dbo].[Delete_Student_By_Id]
[dbo].[departmentStudents]
[dbo].[Get_All_Students]
[dbo].[Get_Student_By_Email]
[dbo].[Get_Student_By_Id]
[dbo].[StudentExamAnswers]
[dbo].[studentGrades]
[dbo].[Update_Student_By_Id]
```

# [dbo].[Student\_Course]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	13
Created	5:07:50 PM Monday, February 20, 2023
Last Modified	8:09:33 PM Monday, February 27, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKC FKG	Stu_id	int	4	NOT NULL
PKO FKO	Crs_id	int	4	NOT NULL
	grade	int	4	NULL allowed
	percentageGrade	varchar(10)	10	NULL allowed

### Indexes

Key	Name	Key Columns	Unique
PK G	PK_Student_Course	Stu_id, Crs_id	True

## Foreign Keys

Name	Columns
FK_Student_Course_Courses	Crs_id->[dbo].[Courses].[Crs_id]
FK_Student_Course_Student	Stu_id->[dbo].[Student].[Stu_id]

```
CREATE TABLE [dbo].[Student_Course]
[Stu_id] [int] NOT NULL,
[Crs_id] [int] NOT NULL,
[grade] [int] NULL,
[percentageGrade] \ [varchar] \ (10) \ COLLATE \ SQL\_Latin1\_General\_CP1\_CI\_AS \ {\tt NULL}
) ON [PRIMARY]
```

```
GO
ALTER TABLE [dbo].[Student_Course] ADD CONSTRAINT [PK_Student_Course] PRIMARY KEY
CLUSTERED ([Stu_id], [Crs_id]) ON [PRIMARY]

GO
ALTER TABLE [dbo].[Student_Course] ADD CONSTRAINT [FK_Student_Course_Courses] FOREIGN
KEY ([Crs_id]) REFERENCES [dbo].[Courses] ([Crs_id])

GO
ALTER TABLE [dbo].[Student_Course] ADD CONSTRAINT [FK_Student_Course_Student] FOREIGN
KEY ([Stu_id]) REFERENCES [dbo].[Student] ([Stu_id])

GO
```

[dbo].[Courses] [dbo].[Student]

#### **Used By**

[dbo].[Add\_StudentGarde]
[dbo].[delete\_garde]
[dbo].[delete\_student\_course]
[dbo].[Exam\_Correction]
[dbo].[Get\_Student\_Course]
[dbo].[Get\_Student\_Course\_by\_Courseld]
[dbo].[Get\_Student\_Course\_by\_StudentId]
[dbo].[instructorCourses]
[dbo].[studentGrades]
[dbo].[update\_student\_grade]

# [dbo].[Student\_Exam\_Question]

## **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	100
Created	12:53:39 AM Monday, February 27, 2023
Last Modified	12:53:39 AM Monday, February 27, 2023

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	Stu_id	int	4	NOT NULL
PKO FKO	Exm_id	int	4	NOT NULL
PKO FKO	Qst_id	int	4	NOT NULL
	Student_Answer	char(1)	1	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK C	PK_Student_Exam_Question	Stu_id, Exm_id, Qst_id	True

## Foreign Keys

Name	Columns
FK_Student_Exam_Question_Exams	Exm_id->[dbo].[Exams].[Exm_id]
FK_Student_Exam_Question_Questions	Qst_id->[dbo].[Questions].[Qst_id]
FK_Student_Exam_Question_Student	Stu_id->[dbo].[Student].[Stu_id]

```
CREATE TABLE [dbo].[Student_Exam_Question]

(
[Stu_id] [int] NOT NULL,

[Exm_id] [int] NOT NULL,
```

```
[Qst id] [int] NOT NULL,
[Student_Answer] [char] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
ALTER TABLE [dbo].[Student Exam Question] ADD CONSTRAINT [PK Student Exam Question]
PRIMARY KEY CLUSTERED ([Stu_id], [Exm_id], [Qst_id]) ON [PRIMARY]
ALTER TABLE [dbo].[Student Exam Question] ADD CONSTRAINT [FK Student Exam Question -
Exams] FOREIGN KEY ([Exm_id]) REFERENCES [dbo].[Exams] ([Exm_id])
ALTER TABLE [dbo].[Student Exam Question] ADD CONSTRAINT [FK Student Exam Question -
Questions] FOREIGN KEY ([Qst id]) REFERENCES [dbo].[Questions] ([Qst id])
ALTER TABLE [dbo].[Student_Exam_Question] ADD CONSTRAINT [FK_Student_Exam_Question_-
Student] FOREIGN KEY ([Stu id]) REFERENCES [dbo].[Student] ([Stu id])
GO
```

[dbo].[Exams] [dbo].[Questions] [dbo].[Student]

#### **Used By**

[dbo].[deleteExamByCrsId] [dbo].[DeleteExamByID] [dbo].[Exam\_Correction] [dbo].[Exam\_Student\_Answers] [dbo].[StudentExamAnswers]

# [dbo].[Topic]

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	16
Created	5:07:50 PM Monday, February 20, 2023
Last Modified	5:07:52 PM Monday, February 20, 2023

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	Top_id	int	4	NOT NULL
	Top_Name	varchar(50)	50	NULL allowed
FK	Crs_id	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK G	PK_Topic	Top_id	True

### Foreign Keys

Name	Columns
FK_Topic_Courses1	Crs_id->[dbo].[Courses].[Crs_id]

```
CREATE TABLE [dbo].[Topic]

(
[Top_id] [int] NOT NULL,

[Top_Name] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Crs_id] [int] NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Topic] ADD CONSTRAINT [PK_Topic] PRIMARY KEY CLUSTERED ([Top_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Topic] ADD CONSTRAINT [FK_Topic_Courses1] FOREIGN KEY ([Crs_id])

REFERENCES [dbo].[Courses] ([Crs_id])
```

GO

Uses

[dbo].[Courses]

**Used By** 

[dbo].[addTopic]

[dbo].[courseTopics]

[dbo].[deleteTopicByCrsId]

[dbo].[deleteTopicById]

[dbo].[GetTopicData]

[dbo].[updateTopic]

# [dbo].[Work\_In]

#### **Properties**

Property	Value	
Row Count (~)	9	
Created	5:07:50 PM Monday, February 20, 2023	
Last Modified	10:56:18 AM Sunday, February 26, 2023	

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKC FKC	Ins_id	int	4	NOT NULL
PKC FKC	Did	int	4	NOT NULL
	Working_Hours	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK	PK_Work_In	Ins_id, Did	True

### Foreign Keys

Name	Update	Delete	Columns
FK_Work_In_Department			Did->[dbo].[Department].[Did]
FK_Work_In_Instructor	Cascade	Cascade	Ins_id->[dbo].[Instructor].[Ins_id]

```
CREATE TABLE [dbo].[Work_In]

(
[Ins_id] [int] NOT NULL,

[Did] [int] NOT NULL,

[Working_Hours] [int] NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Work_In] ADD CONSTRAINT [PK_Work_In] PRIMARY KEY CLUSTERED

([Ins_id], [Did]) ON [PRIMARY]

GO
```

```
ALTER TABLE [dbo].[Work_In] ADD CONSTRAINT [FK_Work_In_Department] FOREIGN KEY ([Did])
REFERENCES [dbo].[Department] ([Did])

GO

ALTER TABLE [dbo].[Work_In] ADD CONSTRAINT [FK_Work_In_Instructor] FOREIGN KEY
([Ins_id]) REFERENCES [dbo].[Instructor] ([Ins_id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

#### Uses

[dbo].[Department] [dbo].[Instructor]

#### **Used By**

[dbo].[AddWorkIn]
[dbo].[deleteWorkInByDepId]
[dbo].[deleteWorkInByDepIdAndInsId]
[dbo].[deleteWorkInByInsId]
[dbo].[getWorkIn]
[dbo].[updateWorkIn]

#### **Stored Procedures**

#### Objects

Name
dbo.Add_Student
dbo.Add_StudentGarde
dbo.addCourse
dbo.addDepartment
dbo.AddInstructor
dbo.addInstructorCourse
dbo.addTopic
dbo.AddWorkIn
dbo.courseTopics
dbo.CreateExam
dbo.Delete_All_Students
dbo.delete_garde
dbo.Delete_Student_By_Id
dbo.delete_student_course
dbo.deleteCourse
dbo.deleteDepartment
dbo.deleteExamByCrsId
dbo.DeleteExamByID
dbo.deleteInstructorByID
dbo.deleteInstructorCourses
dbo.deleteQuestion
dbo.deleteTopicByCrsId
dbo.deleteTopicById
dbo.deleteWorkInByDepId
dbo.deleteWorkInByDepIdAndInsId
dbo.deleteWorkInByInsId
dbo.departmentStudents
dbo.Exam_Correction
dbo.Exam_Student_Answers
dbo.Get_All_Exams
dbo.Get_All_Students
dbo.Get_Student_By_Email
dbo.Get_Student_By_Id
dbo.Get_Student_Course

dbo.Get_Student_Course_by_CourseId
dbo.Get_Student_Course_by_StudentId
dbo.getExam
dbo.getInstructor
dbo.getInstructorCourses
dbo.getQuestion
dbo.GetTopicData
dbo.getWorkIn
dbo.insertQuestion
dbo.instructorCourses
dbo.PrintExam
dbo.selectCourse
dbo.selectDepartment
dbo.StudentExamAnswers
dbo.studentGrades
dbo.Update_Student_By_Id
dbo.update_student_grade
dbo.updateCourse
dbo.updateDepartment
dbo.updateExam
dbo.updateInstructoByID
dbo.updateInstructorCourse
dbo.updateQuestionByID
dbo.updateTopic
dbo.updateWorkIn

### [dbo].[Add\_Student]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@fname	varchar(20)	20
@IName	varchar(20)	20
@phone	int	4
@email	varchar(20)	20
@address	varchar(20)	20
@leaderId	int	4
@departmentId	int	4

#### **Permissions**

Туре	Action	Owning Principal
Deny	EXECUTE	Instructor_Mohammed
Deny	ALTER	Instructor_Mohammed
Deny	CONTROL	Instructor_Mohammed
Deny	TAKE OWNERSHIP	Instructor_Mohammed
Deny	VIEW DEFINITION	Instructor_Mohammed

#### **SQL Script**

```
END TRY

BEGIN CATCH

SELECT 'Error'

END CATCH

GO

DENY ALTER ON [dbo].[Add_Student] TO [Instructor_Mohammed]

GO

DENY CONTROL ON [dbo].[Add_Student] TO [Instructor_Mohammed]

GO

DENY EXECUTE ON [dbo].[Add_Student] TO [Instructor_Mohammed]

GO

DENY TAKE OWNERSHIP ON [dbo].[Add_Student] TO [Instructor_Mohammed]

GO

DENY VIEW DEFINITION ON [dbo].[Add_Student] TO [Instructor_Mohammed]

GO
```

#### Uses

[dbo].[Student]

### [dbo].[Add\_StudentGarde]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@Stuld	int	4
@Crsld	int	4
@grade	int	4

#### **Permissions**

Туре	Action	Owning Principal
Deny	EXECUTE	Student_A
Deny	ALTER	Student_A
Deny	CONTROL	Student_A
Deny	TAKE OWNERSHIP	Student_A
Deny	VIEW DEFINITION	Student_A

#### **SQL Script**

```
CREATE PROC [dbo].[Add_StudentGarde] @StuId INT, @CrsId INT, @grade INT

WITH ENCRYPTION

AS

BEGIN TRY

INSERT INTO Student_Course

VALUES (@StuId, @CrsId, @grade)

END TRY

BEGIN CATCH

SELECT 'Error'

END CATCH

GO

DENY ALTER ON [dbo].[Add_StudentGarde] TO [Student_A]

GO

DENY CONTROL ON [dbo].[Add_StudentGarde] TO [Student_A]
```

```
GO
DENY EXECUTE ON [dbo].[Add_StudentGarde] TO [Student_A]
GO
DENY TAKE OWNERSHIP ON [dbo].[Add_StudentGarde] TO [Student_A]
GO
DENY VIEW DEFINITION ON [dbo].[Add_StudentGarde] TO [Student_A]
GO
```

#### Uses

[dbo].[Student\_Course]

## [dbo].[addCourse]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@cr_id	int	4
@name	varchar(20)	20
@duration	int	4
@description	varchar(70)	70

#### **SQL Script**

```
CREATE PROC [dbo].[addCourse] @cr_id INT, @name VARCHAR(20), @duration INT, @description VARCHAR(70)=NULL

AS

BEGIN TRY
INSERT INTO courses VALUES(@cr_id,@name,@duration,@description)

END TRY

BEGIN CATCH

SELECT ERROR_MESSAGE()

END CATCH

GO
```

#### Uses

[dbo].[Courses]

### [dbo].[addDepartment]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@did	int	4
@name	varchar(20)	20
@location	nvarchar(200)	400
@description	varchar(50)	50
@mgr_id	int	4

#### **SQL Script**

```
CREATE proc [dbo].[addDepartment] @did INT , @name VARCHAR(20),@location NVARCHAR(200), @description VARCHAR(50)=NULL,@mgr_id INT=NULL

AS

BEGIN try
INSERT INTO department VALUES (@did,@name,@description,@location,@mgr_id)

END TRY

BEGIN CATCH

SELECT ERROR_MESSAGE()

END catch

GO
```

#### Uses

#### [dbo].[Department]

### [dbo].[AddInstructor]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@fname	nvarchar(70)	140
@Iname	nvarchar(70)	140
@degree	nvarchar(70)	140
@sal	int	4
@address	nvarchar(70)	140
@phone	int	4
@supervisor	int	4

#### **SQL Script**

```
CREATE proc [dbo].[AddInstructor] @id int, @fname nvarchar(70),@lname nvarchar(70)
,@degree NVARCHAR(70), @sal int , @address nvarchar(70)=null,@phone
int=null,@supervisor int
as
begin try
insert into Instructor
values(@id,@fname,@lname,@degree,@sal,@address,@phone,@supervisor)
end try
begin catch
select 'Error'
end CATCH
GO
```

#### Uses

#### [dbo].[Instructor]

## [dbo].[addInstructorCourse]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@ins_id	int	4
@crs_id	int	4
@eval	nvarchar(70)	140

#### **SQL Script**

```
create proc [dbo].[addInstructorCourse] @ins_id int ,@crs_id INT ,@eval NVARCHAR(70)
as
begin try
insert into Instructor_Course values(@ins_id, @crs_id,@eval)
end try
begin catch
select 'Error'
end catch
GO
```

#### Uses

[dbo].[Instructor\_Course]

## [dbo].[addTopic]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@name	varchar(50)	50
@crs	int	4

#### **SQL Script**

```
CREATE PROCEDURE [dbo].[addTopic] @id INT , @name VARCHAR(50), @crs INT

AS

IF NOT EXISTS (SELECT t.Top_id FROM Topic t WHERE @id = t.Top_id)

INSERT INTO Topic (Top_id,Top_Name,Crs_id)

VALUES (@id,@name,@crs)

ELSE

SELECT'Duplicted ID'

GO
```

#### Uses

[dbo].[Topic]

## [dbo].[AddWorkIn]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@insld	int	4
@depld	int	4
@WorkingHours	int	4

#### **SQL Script**

```
CREATE PROCEDURE [dbo].[AddWorkIn] @insId INT , @depId INT , @WorkingHours INT

WITH ENCRYPTION

AS

BEGIN TRY

IF NOT EXISTS (SELECT * FROM Work_In wi WHERE wi.Ins_id=@insId AND wi.Did=@depId)

INSERT INTO Work_In (Ins_id,Did,Working_Hours)

VALUES (@insId,@depId,@WorkingHours)

ELSE

SELECT'Duplicted ID'

END TRY

BEGIN CATCH

SELECT 'Error'

END CATCH

GO
```

#### Uses

 $[dbo].[Work\_In]$ 

## [dbo].[courseTopics]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@course_id	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[courseTopics] @course_id INT

AS

IF EXISTS(SELECT crs_id FROM Courses WHERE Crs_id=@course_id)

BEGIN

SELECT topic.top_name

FROM Topic , courses

WHERE topic.Crs_id=Courses.Crs_id AND Courses.Crs_id=@course_id

END

ELSE

SELECT 'There is no course with this id' AS 'result'

GO
```

#### Uses

[dbo].[Courses] [dbo].[Topic]

### [dbo].[CreateExam]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@crs_name	varchar(50)	50
@N_mcq	int	4
@N_tf	int	4
@duration	int	4
@date	date	3

#### **Permissions**

Туре	Action	Owning Principal
Grant	EXECUTE	Student_A
Grant	ALTER	Student_A
Grant	CONTROL	Student_A
Grant	TAKE OWNERSHIP	Student_A
Grant	VIEW DEFINITION	Student_A

#### **SQL Script**

```
CREATE PROC [dbo].[CreateExam] @crs_name VARCHAR(50) , @N_mcq INT=0 ,@N_tf INT=0 ,
    @duration INT = 60 , @date DATE =NULL

WITH ENCRYPTION

AS

BEGIN TRY

--Check if the Course Exists and The Number OF Questions =10

IF NOT EXISTS (SELECT * FROM Courses C WHERE Name =@crs_name)

BEGIN

SELECT 'This Course Does Not Exists'

END

ELSE IF (@N_mcq +@N_tf !=10 OR @N_mcq< 0 OR @N_tf<0 )

BEGIN
```

```
SELECT 'Enter Valid Number Of Question'
   -- Else (Our Code)
   ELSE
   BEGIN
       ---1- Get Course ID
       DECLARE @crs id INT
       SELECT @crs_id= Crs_id FROM Courses WHERE Name=@crs_name
       -- insert in exam ( exm id - duration- crs id -date )
       if @date is null set @date =getDate()
       INSERT INTO Exams
       VALUES (@duration,@crs id,@date)
    -- get the latest add identity value
       DECLARE @new exam id int = @@IDENTITY
       INSERT INTO Exam Questions
       SELECT TOP (@N_mcq) @new_exam_id,Qst_id FROM Questions WHERE Crs_id = @crs_id
and type = 'mcq' ORDER BY NEWID()
       Insert Into Exam Questions
       SELECT TOP (@N_tf) @new_exam_id, Qst_id FROM Questions WHERE Crs_id = @crs_id
and type = 't/f' ORDER BY NEWID()
       SELECT 'Exam Created'
   END
END TRY
BEGIN CATCH
SELECT 'Error'
END CATCH
GRANT ALTER ON [dbo].[CreateExam] TO [Student A]
GRANT CONTROL ON [dbo].[CreateExam] TO [Student A]
GRANT EXECUTE ON [dbo].[CreateExam] TO [Student_A]
GRANT TAKE OWNERSHIP ON [dbo].[CreateExam] TO [Student A]
GRANT VIEW DEFINITION ON [dbo].[CreateExam] TO [Student_A]
GO
```

#### Uses

[dbo].[Courses]
[dbo].[Exam\_Questions]
[dbo].[Exams]
[dbo].[Questions]

# [dbo].[Delete\_All\_Students]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **SQL Script**

```
CREATE PROC [dbo].[Delete_All_Students]
WITH ENCRYPTION

AS

BEGIN TRY

DELETE FROM Student
END TRY

BEGIN CATCH

SELECT 'error'
END CATCH
GO
```

#### Uses

[dbo].[Student]

# [dbo].[delete\_garde]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@Stuld	int	4
@crsId	int	4

#### **SQL Script**

```
CREATE PROCEDURE [dbo].[delete_garde] @StuId INT , @crsId INT
WITH ENCRYPTION

AS

BEGIN TRY

DELETE grade FROM Student_Course sc

WHERE sc.Stu_id = @StuId AND sc.Crs_id = @crsId

END TRY

BEGIN CATCH

SELECT 'Error'

END CATCH

GO
```

#### Uses

[dbo].[Student\_Course]

# [dbo].[Delete\_Student\_By\_Id]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[Delete_Student_By_Id] @id INT
WITH ENCRYPTION

AS

BEGIN TRY

if exists(SELECT s.Stu_id from Student s where s.Stu_id = @id)

UPDATE Student SET Leader_id = NULL WHERE Leader_id = @id

delete from Student where Stu_id = @id

END TRY

BEGIN CATCH

SELECT 'Error'

END CATCH

GO
```

#### Uses

[dbo].[Student]

# [dbo].[delete\_student\_course]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[delete_student_course] @id INT
WITH ENCRYPTION

AS

BEGIN TRY

DELETE FROM Student_Course

WHERE Stu_id = @id

END TRY

BEGIN CATCH

SELECT 'Error'

END CATCH

GO
```

#### Uses

[dbo].[Student\_Course]

# [dbo].[deleteCourse]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@cr_id	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[deleteCourse] @cr_id INT

AS

BEGIN TRY

DELETE courses WHERE Crs_id=@cr_id

END TRY

BEGIN CATCH

SELECT ERROR_MESSAGE()

END CATCH

GO
```

#### Uses

[dbo].[Courses]

## [dbo].[deleteDepartment]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@did	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[deleteDepartment] @did INT

AS

BEGIN TRY

DELETE FROM department WHERE did=@did

END TRY

BEGIN CATCH

SELECT ERROR_MESSAGE()

END CATCH

GO
```

#### Uses

[dbo].[Department]

### [dbo].[deleteExamByCrsId]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@crsId	int	4

#### **SQL Script**

```
CREATE PROCEDURE [dbo].[deleteExamByCrsId] @crsId INT
WITH ENCRYPTION
AS
BEGIN
  IF EXISTS (SELECT e.Crs id FROM Exams e WHERE e.Crs id=@crsId)
   BEGIN
       BEGIN TRY
          BEGIN TRANSACTION;
               DELETE FROM Student Exam Question WHERE Exm id IN (SELECT Exm id FROM
Exams WHERE Crs_id = @crsId)
               DELETE FROM Exam_Questions WHERE Exm_id IN (SELECT Exm_id FROM Exams
WHERE Crs id = @crsId)
               DELETE FROM Exams WHERE Crs id=@crsId
           COMMIT TRANSACTION;
       END TRY
       BEGIN CATCH
           IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION;
              SELECT'Error happend while deleting'
       END CATCH
   END
   ELSE
       SELECT 'Exam does not exist'
   END
END
```

GO

#### Uses

[dbo].[Exam\_Questions]
[dbo].[Exams]
[dbo].[Student\_Exam\_Question]

## [dbo].[DeleteExamByID]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@ExamID	int	4

#### **SQL Script**

```
CREATE PROCEDURE [dbo].[DeleteExamByID] @ExamID INT
AS
BEGIN
   IF EXISTS (SELECT Exm id FROM Exams WHERE Exm id = @ExamID)
       BEGIN TRY
           BEGIN TRANSACTION;
           DELETE FROM Student Exam Question WHERE Exm id = @ExamID;
           DELETE FROM Exam_Questions WHERE Exm_id = @ExamID;
           DELETE FROM Exams WHERE Exm_id = @ExamID;
           COMMIT TRANSACTION;
       END TRY
       BEGIN CATCH
           IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION;
           SELECT'Error happend while deleting';
       END CATCH
   END
   ELSE
   BEGIN
       SELECT 'Exam does not exist'
   END
END
GO
```

#### Uses

[dbo].[Exam\_Questions]
[dbo].[Exams]
[dbo].[Student\_Exam\_Question]

## [dbo].[deleteInstructorByID]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

#### **SQL Script**

```
CREATE proc [dbo].[deleteInstructorByID] @id int

AS

BEGIN TRY

if exists(select Ins_id from Instructor i where i.Ins_id = @id)

BEGIN

UPDATE Instructor SET Super_id=NULL WHERE Super_id=@id

delete from Instructor where Ins_id = @id

end
else select 'Not Found'
END TRY

BEGIN CATCH
select 'Error'
END CATCH
GO
```

#### Uses

[dbo].[Instructor]

### [dbo].[deleteInstructorCourses]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@ins_id	int	4
@crs_id	int	4

#### **SQL Script**

```
CREATE proc [dbo].[deleteInstructorCourses] @ins id int = -1 ,@crs id int =-1
BEGIN TRY
if(@ins id <> -1 and @crs id =-1)
BEGIN
        IF EXISTS (SELECT Ins id FROM Instructor Course ic WHERE Ins id=@ins id)
        delete from Instructor_course where Ins_id=@ins_id
        END
        ELSE SELECT 'Not Found'
END
else if (@ins id =-1 and @crs id <>-1)
BEGIN
        IF EXISTS (SELECT Crs_id FROM Instructor_Course ic WHERE Crs_id=@crs_id)
        begin
        delete from Instructor_course where Crs id=@crs id
        ELSE SELECT 'Not Found'
END
else if(@ins_id<>-1 and @crs_id<>-1)
BEGIN
IF EXISTS (SELECT Crs_id FROM Instructor_Course ic WHERE Crs_id=@crs_id) AND EXISTS (SELECT Ins_id FROM Instructor_Course ic WHERE Ins_id=@ins_id)
        delete from Instructor course where Ins id-@ins id and Crs id-@crs id
        ELSE SELECT 'Not Found'
END
END TRY
```

```
begin catch
select 'Error'
end CATCH
GO
```

Uses

[dbo].[Instructor\_Course]

## [dbo].[deleteQuestion]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

#### **SQL Script**

```
CREATE proc [dbo].[deleteQuestion] @id INT

as

BEGIN TRY

if exists(select qst_id from Questions where qst_id = @id)

BEGIN

UPDATE Questions SET Crs_id=NULL WHERE qst_id=@id

delete from Question_Choice where qst_id = @id

delete from Questions where qst_id = @id

end

else

select 'Not Found'

END TRY

BEGIN CATCH

select 'Error'

END CATCH

GO
```

#### Uses

[dbo].[Question\_Choice] [dbo].[Questions]

## [dbo].[deleteTopicByCrsId]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@crsId	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[deleteTopicByCrsId] @crsId INT
WITH ENCRYPTION

AS
BEGIN TRY

IF EXISTS (SELECT crs_id FROM Topic t WHERE @crsId=T.Crs_id)

BEGIN

DELETE FROM Topic WHERE @crsId=Crs_id

END

ELSE

SELECT 'Topic does not exist'

END TRY

BEGIN CATCH

SELECT 'error'

END CATCH

GO
```

#### Uses

[dbo].[Topic]

## [dbo].[deleteTopicByld]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@topId	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[deleteTopicById] @topId INT
WITH ENCRYPTION

AS
BEGIN TRY

IF EXISTS (SELECT t.Top_id FROM Topic t WHERE @topId=T.Top_id)

BEGIN

DELETE FROM Topic WHERE @topId=Top_id

END

ELSE

SELECT 'Topic does not exist'

END TRY

BEGIN CATCH

SELECT 'error'

END CATCH

GO
```

#### Uses

[dbo].[Topic]

## [dbo].[deleteWorkInByDepId]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@depld	int	4

#### **SQL Script**

```
CREATE PROCEDURE [dbo].[deleteWorkInByDepId] @depId INT
WITH ENCRYPTION

AS
BEGIN TRY

IF EXISTS (SELECT wi.Ins_id FROM Work_In wi WHERE @depId=wi.Did)

BEGIN

DELETE FROM Work_In WHERE @depId=Did

END

ELSE

SELECT 'Wrong Id'

END TRY

BEGIN CATCH

SELECT'Error'

END CATCH

GO
```

#### Uses

[dbo].[Work\_In]

### [dbo].[deleteWorkInByDepIdAndInsId]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@depld	int	4
@insld	int	4

#### **SQL Script**

```
CREATE PROCEDURE [dbo].[deleteWorkInByDepIdAndInsId] @depId INT , @insId INT
WITH ENCRYPTION

AS
BEGIN TRY

IF EXISTS (SELECT wi.Ins_id FROM Work_In wi WHERE @depId=wi.Did AND @insId=Ins_id)

BEGIN

DELETE FROM Work_In WHERE @depId=Did AND @insId=Ins_id

END

ELSE

SELECT 'Wrong Id'

END TRY

BEGIN CATCH

SELECT'Error'

END CATCH

GO
```

#### Uses

[dbo].[Work\_In]

## [dbo].[deleteWorkInByInsId]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@insld	int	4

#### SQL Script

```
CREATE PROCEDURE [dbo].[deleteWorkInByInsId] @insId INT
WITH ENCRYPTION

AS
BEGIN TRY

IF EXISTS (SELECT wi.Ins_id FROM Work_In wi WHERE @insId=wi.Ins_id)

BEGIN

DELETE FROM Work_In WHERE @insId=Ins_id

END

ELSE

SELECT 'Wrong Id'

END TRY

BEGIN CATCH

SELECT'Error'

END CATCH

GO
```

#### Uses

[dbo].[Work\_In]

## [dbo].[departmentStudents]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@dept_id	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[departmentStudents] @dept_id INT

AS

IF EXISTS(SELECT did FROM department WHERE did = @dept_id)

BEGIN

IF EXISTS(SELECT s.did,D.did FROM student s, department D WHERE s.did=D.did AND
D.did=@dept_id)

BEGIN

SELECT s.* FROM student s, department d

WHERE s.did=D.did AND D.did=@dept_id

END--end of secont if

ELSE

SELECT 'no students in this department'

END --end of first if

ELSE

SELECT 'department does not exist' AS 'result'

GO
```

#### Uses

[dbo].[Department] [dbo].[Student]

# [dbo].[Exam\_Correction]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@Examld	int	4
@StudentId	int	4

# **Permissions**

Type	Action	Owning Principal
Deny	EXECUTE	Student_A
Deny	ALTER	Student_A
Deny	CONTROL	Student_A
Deny	TAKE OWNERSHIP	Student_A
Deny	VIEW DEFINITION	Student_A

```
CREATE PROCEDURE [dbo].[Exam_Correction]
    @ExamId INT,
    @StudentId INT

WITH ENCRYPTION

AS

BEGIN

BEGIN TRY

IF NOT EXISTS(SELECT* FROM Student_Exam_Question seq WHERE seq.Stu_id=@Student-Id AND seq.Exm_id=@ExamId)

SELECT 'Wrong student or exam'

ELSE

BEGIN

DECLARE @TotalScore INT = 0;

DECLARE @QuestionId INT;

DECLARE @CorrectAnswer CHAR(1);
```

```
DECLARE @StudentAnswer CHAR(1);
                    DECLARE @gradeAnswer INT ;
                    DECLARE @totalGrade INT = 0;
                    DECLARE @CrsId INT;
                    SELECT @CrsId=e.Crs id
                    FROM Exams e
                    WHERE e.Exm id=@ExamId
                    DECLARE question cursor CURSOR FOR
                    SELECT q.Qst id, q.Model Answer,q.Qst Grade
                    FROM Questions q
                    INNER JOIN Student Exam Question seq ON q.Qst id = seq.Qst id
                    WHERE seq.Exm id = @ExamId AND seq.Stu id = @StudentId;
                    OPEN question cursor;
                    FETCH NEXT FROM question_cursor INTO @QuestionId, @Correct-
Answer, @gradeAnswer;
                    WHILE @@FETCH STATUS = 0
                        BEGIN
                            SELECT @StudentAnswer = seq.Student_Answer
                            {\tt FROM} Questions q , Student Exam Question seq
                            WHERE seq.Exm_id = @ExamId AND seq.Stu_id = @StudentId AND
seq.Qst id = @QuestionId;
                            IF @StudentAnswer = @CorrectAnswer
                            SET @TotalScore = @TotalScore + @gradeAnswer;
                            SET @totalGrade = @totalGrade + @gradeAnswer
                            FETCH NEXT FROM question_cursor INTO @QuestionId, @Correct-
Answer,@gradeAnswer;
                        END
                    UPDATE Student Course
                    SET percentageGrade = CONCAT((@TotalScore/@totalGrade)*100,'%') ,
grade =@TotalScore
                    WHERE Stu id=@StudentId AND Crs id = @CrsId
                    CLOSE question cursor;
                    DEALLOCATE question cursor;
   END
       END TRY
       BEGIN CATCH
           SELECT ERROR MESSAGE();
```

```
END CATCH

END

GO

DENY ALTER ON [dbo].[Exam_Correction] TO [Student_A]

GO

DENY CONTROL ON [dbo].[Exam_Correction] TO [Student_A]

GO

DENY EXECUTE ON [dbo].[Exam_Correction] TO [Student_A]

GO

DENY TAKE OWNERSHIP ON [dbo].[Exam_Correction] TO [Student_A]

GO

DENY VIEW DEFINITION ON [dbo].[Exam_Correction] TO [Student_A]

GO
```

[dbo].[Exams]
[dbo].[Questions]
[dbo].[Student\_Course]
[dbo].[Student\_Exam\_Question]

# [dbo].[Exam\_Student\_Answers]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@exam_id	int	4
@st_id	int	4

# **SQL Script**

```
CREATE PROC [dbo].[Exam_Student_Answers] @exam_id INT, @st_id INT

AS

SELECT seq.Exm_id ,q.Question, q.Type, q.Model_Answer,seq.Student_Answer

FROM Student_Exam_Question seq , Questions q

WHERE seq.Qst_id = q.Qst_id AND seq.Exm_id = @exam_id and seq.Stu_id = @st_id

GO
```

### Uses

[dbo].[Questions] [dbo].[Student\_Exam\_Question]

# [dbo].[Get\_All\_Exams]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@Exmld	int	4
@crsId	int	4
@date	date	3

```
CREATE PROC [dbo]. [Get All Exams] @ExmId INT=-1, @crsId INT =-1,@date DATE ='1600-01-
01'
WITH ENCRYPTION
BEGIN TRY
  IF (@ExmId!=-1)
     BEGIN
        BEGIN
          SELECT *
          FROM Exams e
          WHERE e.Exm_id=@ExmId
        END
        else
        SELECT 'Exam does not exist'
   END
  IF(@crsId!=-1)
     BEGIN
        SELECT *
        FROM Exams e
        WHERE e.Crs id=@crsId
```

```
END
       else
       SELECT 'Exam does not exist'
   IF (@date!='1600-01-01')
   BEGIN
       IF EXISTS( SELECT * FROM Exams e WHERE e.Date=@date)
          BEGIN
              SELECT *
              FROM Exams e
             WHERE e.Date=@date
           END
       else
       SELECT 'Exam does not exist'
END TRY
BEGIN CATCH
  SELECT 'error'
END CATCH
GO
```

[dbo].[Exams]

# [dbo].[Get\_All\_Students]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **SQL Script**

```
CREATE PROCEDURE [dbo].[Get_All_Students] WITH ENCRYPTION

AS

BEGIN

SELECT *

FROM dbo.Student

END

GO
```

### Uses

# [dbo].[Get\_Student\_By\_Email]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@email	varchar(20)	20

# **SQL Script**

```
CREATE PROCEDURE [dbo].[Get_Student_By_Email] @email VARCHAR(20)
WITH ENCRYPTION
AS
BEGIN
SELECT *
FROM Student
WHERE Email = @email
END
GO
```

#### Uses

# [dbo].[Get\_Student\_By\_Id]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

# **SQL Script**

```
CREATE PROCEDURE [dbo].[Get_Student_By_Id] @id INT
WITH ENCRYPTION
AS
BEGIN
SELECT *
FROM Student
WHERE Stu_id = @id
END
GO
```

# Uses

# [dbo].[Get\_Student\_Course]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **SQL Script**

```
CREATE PROCEDURE [dbo].[Get_Student_Course] WITH ENCRYPTION

AS

BEGIN

SELECT *

FROM Student_Course

END

GO
```

### Uses

[dbo].[Student\_Course]

# [dbo].[Get\_Student\_Course\_by\_CourseId]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

# **SQL Script**

```
CREATE PROC [dbo].[Get_Student_Course_by_CourseId] @id INT
WITH ENCRYPTION

AS

BEGIN TRY

SELECT * FROM Student_Course sc
WHERE sc.Crs_id = @id
END TRY

BEGIN CATCH
SELECT 'Error'
END CATCH
GO
```

# Uses

[dbo].[Student\_Course]

# [dbo].[Get\_Student\_Course\_by\_StudentId]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

# **SQL Script**

```
CREATE PROC [dbo].[Get_Student_Course_by_StudentId] @id INT
WITH ENCRYPTION

AS

BEGIN TRY

SELECT * FROM Student_Course sc
WHERE sc.Stu_id = @id
END TRY

BEGIN CATCH
SELECT 'Error'
END CATCH
GO
```

# Uses

[dbo].[Student\_Course]

# [dbo].[getExam]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

```
CREATE PROC [dbo].[getExam] @id int
                                      =-1
if @id != -1
BEGIN
   IF exists(select * from Exam_Questions eq where eq.Exm_id = @id)
           DECLARE @getexam TABLE (qstID int, question varchar(200), answer
varchar(200),a varchar(200),b VARCHAR(200),c VARCHAR(200),d VARCHAR(200));
           DECLARE c1 CURSOR
           FOR SELECT eq.Qst_id FROM Exam_Questions eq WHERE eq.Exm_id = @id
           for read ONLY
           declare @qstID int
           open c1
           fetch c1 into @qstID
           while @@fetch Status=0
           BEGIN
               INSERT INTO @getexam
               EXECUTE getquestion @qstID
               fetch c1 into @qstID
           SELECT * FROM @getexam
           close c1
           deallocate c1
       END
   ELSE
   BEGIN
       SELECT 'not found'
   END
END
ELSE
   BEGIN
```

```
SELECT 'enter an id'
END
GO
```

[dbo].[Exam\_Questions] [dbo].[getQuestion]

# [dbo].[getInstructor]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@fname	nvarchar(70)	140

```
CREATE proc [dbo].[getInstructor] @id int=-1 ,@fname nvarchar(70)=' '
if 0id = -1 and 0fname !='
begin
       if exists(select * from Instructor i where i.Fname = @fname)
       select i.Ins id ID , i.Fname +' '+i.Lname [Full name], i.Academics Degree
,i.Salary , i.Address, i.Phone
       FROM Instructor i
       WHERE i.Fname=@fname
       end
       else select 'Not Found'
else if @id != -1 and @fname =' '
begin
           if exists(select * from Instructor i where i.Ins id = @id)
       begin
       select i.Ins_id ID , i.Fname +' '+i.Lname [Full name], i.Academics_Degree
,i.Salary , i.Address, i.Phone
       FROM Instructor i
       WHERE i.Ins id=@id
       else select 'Not Found'
END
else /*For the First If */
   select i.Ins_id ID , i.Fname +' '+i.Lname [Full name], i.Academics_Degree ,i.Salary
, i.Address, i.Phone
  FROM Instructor i
```

end			
GO			

[dbo].[Instructor]

# [dbo].[getInstructorCourses]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@ins_id	int	4
@crs_id	int	4

```
CREATE proc [dbo].[getInstructorCourses] @ins id int=-1,@crs id int =-1
BEGIN TRY
if(@ins id=-1 and @crs id<>-1)
   BEGIN
       if exists(select ic.Crs id from Instructor Course ic WHERE ic.Crs id =
@crs_id)
       BEGIN
       SELECT i.Fname+' '+i.Lname AS [Full Name] , c.Name ,ic.Evaluation
       FROM Courses c , Instructor i, Instructor Course ic
       WHERE c.Crs id=ic.Crs id AND ic.Ins id=i.Ins id AND ic.Crs id=@crs id
       ELSE SELECT 'Not Found'
   END
ELSE if (@ins id<>-1 and @crs id=-1)
        if exists(select ic.Ins id from Instructor Course ic WHERE ic.Ins id =
@ins id)
       BEGIN
       SELECT i.Fname+' '+i.Lname AS [Full Name] , c.Name ,ic.Evaluation
       FROM Courses c , Instructor i, Instructor Course ic
       WHERE c.Crs id=ic.Crs id AND ic.Ins id=i.Ins id AND ic.Ins id = @ins id
       ELSE SELECT 'Not Found'
ELSE IF (@ins_id<>-1 and @crs_id<>-1)
       if exists (select ic.Crs id from Instructor Course ic WHERE ic.Crs id =
@crs_id) AND EXISTS (select ic.Ins_id from Instructor_Course ic WHERE ic.Ins_id =
```

```
BEGIN
       SELECT i.Fname+' '+i.Lname AS [Full Name] , c.Name ,ic.Evaluation
       FROM Courses c ,Instructor i,Instructor_Course ic
       WHERE c.Crs_id=ic.Crs_id AND ic.Ins_id=i.Ins_id AND ic.Ins_id = @ins_id AND
ic.Crs_id=@crs_id
       END
       ELSE SELECT 'Not Found'
   END
ELSE
   BEGIN
       SELECT i.Fname+' '+i.Lname AS [Full Name] , c.Name ,ic.Evaluation
       FROM Courses c ,Instructor i,Instructor_Course ic
       WHERE c.Crs id=ic.Crs id AND ic.Ins id=i.Ins id
   END
END TRY
BEGIN CATCH
SELECT 'Error'
END CATCH
GO
```

[dbo].[Courses]
[dbo].[Instructor]
[dbo].[Instructor\_Course]

# [dbo].[getQuestion]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4

```
CREATE PROC [dbo].[getQuestion] @id int=-1
if @id != −1
   BEGIN
   IF exists(select * from Questions where Qst id = @id)
       DECLARE @type VARCHAR(20) = (SELECT type FROM questions WHERE qst id = @id)
       IF @type = 'mcq'
       BEGIN
           SELECT Questions.Qst_id, Questions.Question, Questions.Model_Answer, Pivot-
Data.a, PivotData.b, PivotData.c, PivotData.d
           FROM
           SELECT *
           FROM
              SELECT qst_id,choiceId , choice
               FROM question choice
           ) d
           pivot
              MAX(choice)
              FOR choiceId in (a, b, c, d)
           ) piv
           WHERE piv.qst id =@id
           ) as PivotData
           INNER JOIN Questions ON PivotData.qst_id = Questions.Qst_id
       ELSE IF @type='t/f'
           SELECT q.Qst_id, q.Question, q.Model_Answer, 'true' AS a , 'false' AS b ,''
AS c , '' AS d
```

```
FROM Questions q

WHERE q.Qst_id=@id

END

ELSE

SELECT 'Not Found'

END

ELSE /*For the First If */

BEGIN

SELECT 'enter an id'

END

GO
```

[dbo].[Question\_Choice] [dbo].[Questions]

# **Used By**

[dbo].[getExam]

# [dbo].[GetTopicData]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@name	varchar(50)	50
@id	int	4
@crsId	int	4

```
CREATE PROCEDURE [dbo].[GetTopicData] @name VARCHAR(50)='',@id INT=-1, @crsId INT =-1
WITH ENCRYPTION
BEGIN TRY
  IF (@id!=-1)
  BEGIN
     BEGIN
        SELECT *
        FROM Topic t
        WHERE t.Top id=@id
     END
     else
     SELECT 'topic does not exist'
  END
  IF(@name!='')
  BEGIN
     BEGIN
        SELECT *
        FROM Topic t
        WHERE t.Top_Name=@name
     END
     else
     SELECT 'topic does not exist'
```

```
END
  IF(@crsId!=-1)
  BEGIN
     BEGIN
        SELECT *
       FROM Topic t
       WHERE T.Crs_id=@crsId
     END
     else
     SELECT 'topic does not exist'
  END
END TRY
BEGIN CATCH
  SELECT 'error'
END catch
GO
```

[dbo].[Topic]

# [dbo].[getWorkIn]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@insld	int	4
@depld	int	4
@WorkingHours	int	4

```
CREATE PROCEDURE [dbo].[getWorkIn] @insId INT=-1 , @depId INT=-1 , @WorkingHours INT=-1
WITH ENCRYPTION
AS
BEGIN TRY
  IF(@insId!=-1) AND (@depId!=-1)
   BEGIN
         IF EXISTS ( SELECT * FROM Work In wi WHERE wi.Ins id=@insId AND
wi.Did=@depId)
         BEGIN
            SELECT *
            FROM Work In wi
            WHERE wi.Ins id=@insId AND Did=@depId
         END
         else
           SELECT ' Does not exist'
      END
   ELSE IF(@insId!=-1)
      BEGIN
         SELECT *
            FROM Work In wi
            WHERE wi.Ins id=@insId
          END
          else
```

```
SELECT ' Does not exist'
      END
   ELSE IF(@depId!=-1)
      BEGIN
        BEGIN
            SELECT *
           FROM Work In wi
            WHERE wi.Did=@depId
         END
         else
         SELECT ' Does not exist'
      END
   ELSE IF(@WorkingHours!=-1)
      BEGIN
         IF EXISTS( SELECT * FROM Work_In wi WHERE wi.Working_Hours=@Working-
Hours)
         BEGIN
            SELECT *
           FROM Work_In wi
            WHERE wi.Working Hours=@WorkingHours
         else
           SELECT ' Does not exist'
      END
END TRY
BEGIN CATCH
  SELECT 'Error'
END CATCH
GO
```

 $[dbo].[Work\_In] \\$ 

# [dbo].[insertQuestion]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@crsld	int	4
@qstContent	varchar(200)	200
@type	varchar(10)	10
@ModelAns	varchar(10)	10
@Qstgrd	int	4
@choiceA	varchar(200)	200
@choiceB	varchar(200)	200
@choiceC	varchar(200)	200
@choiceD	varchar(200)	200

```
CREATE proc [dbo].[insertQuestion]
(@crsId INT
,@qstContent VARCHAR(200)
,@type VARCHAR(10)
,@ModelAns VARCHAR(10)
,@Qstgrd INT
,@choiceA VARCHAR(200) = NULL
,@choiceB VARCHAR(200) = NULL
,@choiceC VARCHAR(200) = NULL
,@choiceD VARCHAR(200) = NULL
as
begin TRY
  DECLARE @qstId INT
   SET @qstId = (SELECT TOP 1 Qst_id FROM Questions ORDER BY Qst_id DESC)
   SET @qstId += 1
   INSERT INTO Questions
   VALUES (@qstId, @crsId, @qstContent, @type, @ModelAns, @Qstgrd)
```

```
IF @type = 'mcq'
       BEGIN
            INSERT INTO Question_Choice
           VALUES(@qstId,@choiceA,'a'),(@qstId,@choiceB,'b'),(@qstId,@choice-
C,'c'),(@qstId,@choiceD,'d')
       END
   ELSE
       BEGIN
           INSERT INTO Question Choice
           VALUES(@qstId, 'false', 'f'), (@qstId, 'true', 't')
       END
end try
begin catch
   select 'error'
end CATCH
GO
```

[dbo].[Question\_Choice] [dbo].[Questions]

# [dbo].[instructorCourses]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@ins_id	int	4

# **SQL Script**

```
CREATE PROC [dbo].[instructorCourses] @ins_id INT

AS

IF EXISTS(SELECT ins_id FROM Instructor WHERE Ins_id=@ins_id)

BEGIN

SELECT c.name AS 'course name' , COUNT(sc.stu_id) AS 'students number' FROM Student_-
Course sc, Courses c,Instructor_Course ic

WHERE c.Crs_id=sc.Crs_id AND c.Crs_id=ic.Crs_id AND ic.Ins_id=@ins_id

GROUP BY c.name

END

ELSE

SELECT 'instructor does not exist'

GO
```

#### Uses

[dbo].[Courses]
[dbo].[Instructor]
[dbo].[Instructor\_Course]
[dbo].[Student\_Course]

# [dbo].[PrintExam]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@exam_id	int	4

# **SQL Script**

```
create proc [dbo].[PrintExam] @exam_id int
as
select eq.Exm_id ,q.Question, q.type, qc.Choice, q.Model_Answer from Exams e
  inner join Exam_Questions eq on e.Exm_id = eq.Exm_id
  inner join Questions q on eq.Qst_id = q.Qst_id
  inner join Question_Choice qc on q.Qst_id = qc.Qst_id
  where e.Exm_id = @exam_id
GO
```

# Uses

```
[dbo].[Exam_Questions]
[dbo].[Exams]
[dbo].[Question_Choice]
[dbo].[Questions]
```

# [dbo].[selectCourse]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@columns	varchar(50)	50

```
CREATE PROC [dbo].[selectCourse] @id INT=-1, @columns varchar(50)

AS BEGIN

IF @id!=-1

EXECUTE ('SELECT '+@columns+' from courses where crs_id='+@id)

ELSE

EXECUTE ('SELECT '+@columns+' from courses')

END

GO
```

# [dbo].[selectDepartment]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@columns	varchar(50)	50

```
create PROC [dbo].[selectDepartment] @id INT=-1, @columns varchar(50)
AS BEGIN
IF @id!=-1
EXECUTE ('SELECT '+@columns+' from department where did='+@id)
ELSE
EXECUTE ('SELECT '+@columns+' from department')
END
GO
```

# [dbo].[StudentExamAnswers]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@exam_id	int	4
@std_id	int	4
@q_1	varchar(50)	50
@q_2	varchar(50)	50
@q_3	varchar(50)	50
@q_4	varchar(50)	50
@q_5	varchar(50)	50
@q_6	varchar(50)	50
@q_7	varchar(50)	50
@q_8	varchar(50)	50
@q_9	varchar(50)	50
@q_10	varchar(50)	50

```
CREATE PROC [dbo]. [StudentExamAnswers]

@exam_id int, @std_id INT, @q_1 varchar(50),

@q_2 varchar(50),@q_3 varchar(50),@q_4 varchar(50),@q_5 varchar(50),@q_6 varchar(50),

@q_7 varchar(50),@q_8 varchar(50),@q_9 varchar(50),@q_10 varchar(50)

WITH ENCRYPTION

AS

BEGIN TRY

IF NOT EXISTS (SELECT * FROM Student WHERE Stu_id=@std_id)

BEGIN

SELECT 'Student Does Not Exists'

END

ELSE IF NOT EXISTS(SELECT * FROM Exams e WHERE e.Exm_id=@exam_id)

BEGIN

SELECT 'Exam does Not Exists'
```

```
END
    ELSE -- My Code
    BEGIN
            DECLARE @Answers table(answer VARCHAR(50))
             INSERT INTO @Answers VALUES(@q_1), (@q_2), (@q_3), (@q_4), (@q_5),
(@q 6), (@q 7), (@q 8), (@q 9), (@q 10)
            INSERT INTO Student Exam Question
            SELECT s.Stu_id,eq.Exm_id,eq.Qst_id, NULL --Must Insert Value for Every
Column
            FROM Student s, Exam Questions eq
            WHERE s.Stu id=@std id AND eq.Exm id=@exam id
            --Loop To Add the Anwers
            DECLARE c1 CURSOR
            FOR SELECT answer FROM @Answers
            FOR READ ONLY
            DECLARE @addAnswer VARCHAR(50)
            OPEN c1
            FETCH c1 INTO @addAnswer
            DECLARE c2 CURSOR --Pointer on the Student Exam Question
            FOR SELECT seq.Qst id FROM Student Exam Question seq
            WHERE seq.Exm id=@exam id AND seq.Stu id=@std id
             FOR UPDATE
            DECLARE @oldValue int
            OPEN c2
            FETCH c2 INTO @oldValue
                     WHILE @@FETCH STATUS=0
                     BEGIN
                     {\tt UPDATE} \  \, {\tt Student\_Exam\_Question} \  \, {\tt SET} \  \, {\tt Student\_Answer} \  \, = \\ {\tt @addAnswer} \  \, {\tt WHERE} \\
Exm id=@exam id and Stu id=@std id and Qst id=@oldValue
                     FETCH c1 INTO @addAnswer
                     FETCH c2 INTO @oldValue
                     END
            CLOSE c1
            CLOSE c2
            DEALLOCATE c1
            DEALLOCATE c2
   END
END TRY
BEGIN CATCH
SELECT 'Error'
END CATCH
GO
```

[dbo].[Exam\_Questions]
[dbo].[Exams]
[dbo].[Student]
[dbo].[Student\_Exam\_Question]

# [dbo].[studentGrades]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@std_id	int	4

# **SQL Script**

```
CREATE PROC [dbo].[studentGrades] @std_id INT

AS

IF EXISTS(SELECT stu_id from Student WHERE stu_id=@std_id)

BEGIN

SELECT s.Fname +' '+ s.Lname AS 'Full Name' , c.name ,sc.grade ,sc.percentageGrade

FROM courses c,Student_Course sc ,dbo.Student s

WHERE c.Crs_id=sc.Crs_id AND sc.Stu_id=@std_id AND s.Stu_id= sc.Stu_id

END

ELSE

SELECT 'Student does not exist' AS 'result'

GO
```

#### Uses

[dbo].[Courses] [dbo].[Student] [dbo].[Student\_Course]

# [dbo].[Update\_Student\_By\_Id]

# **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

# **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@fname	varchar(20)	20
@IName	varchar(20)	20
@phone	int	4
@email	varchar(20)	20
@address	varchar(20)	20
@leaderId	int	4
@departmentId	int	4

```
CREATE PROC [dbo].[Update Student By Id] @id INT=-1, @fname VARCHAR(20)="', @lName
VARCHAR (20) = '',
   @phone INT=-1, @email VARCHAR(20)='',@address VARCHAR(20)='', @leaderId INT=-1,
@departmentId INT =-1
WITH ENCRYPTION
AS
   BEGIN TRY
       IF @fname!=''
               UPDATE Student SET Fname = @fname WHERE Stu_id = @id
           END
       IF @lname!=''
               UPDATE Student SET Lname = @1Name WHERE Stu_id = @id
            END
       IF @phone!=-1
           BEGIN
               UPDATE Student SET Phone = @phone WHERE Stu_id = @id
```

```
IF @email!=''
           BEGIN
           UPDATE Student SET Email = @email WHERE Stu id = @id
           END
       IF @address!=''
           BEGIN
              UPDATE Student SET Address = @address WHERE Stu_id = @id
           END
       IF @leaderId!=-1
           BEGIN
              UPDATE Student SET Leader id = @leaderId WHERE Stu id = @id
           END
       IF @departmentId!=-1
           BEGIN
             UPDATE Student SET Did = @departmentId WHERE Stu_id = @id
           END
   END TRY
   BEGIN CATCH
     SELECT 'Error'
   END CATCH
GO
```

# [dbo].[update\_student\_grade]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

## **Parameters**

Name	Data Type	Max Length (Bytes)
@stuld	int	4
@crsId	int	4
@Grade	int	4

## **SQL Script**

```
CREATE PROC [dbo].[update_student_grade] @stuId INT , @crsId INT , @Grade INT
WITH ENCRYPTION

AS

BEGIN TRY

UPDATE Student_Course
SET grade = @Grade
WHERE Stu_id = @stuId AND Crs_id = @crsId
END TRY

BEGIN CATCH
SELECT 'Error'
END CATCH
GO
```

## Uses

[dbo].[Student\_Course]

# [dbo].[updateCourse]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

## **Parameters**

Name	Data Type	Max Length (Bytes)
@crs_id	int	4
@name	nvarchar(5)	10
@duration	int	4
@description	varchar(50)	50

## **SQL Script**

```
CREATE PROC [dbo].[updateCourse] @crs_id INT, @name NVARCHAR(5)='', @duration INT=-
1,@description VARCHAR(50)=''

AS

BEGIN TRY

IF @name!=''

UPDATE courses SET Name=@name WHERE crs_id=@crs_id

IF @duration!=-1

UPDATE courses SET Duration=@duration WHERE Crs_id=@crs_id

IF @description!=''

UPDATE courses SET Description=@description WHERE Crs_id=@crs_id

END TRY

BEGIN CATCH

SELECT ERROR_MESSAGE()

END CATCH

GO
```

#### Uses

## [dbo].[Courses]

# [dbo].[updateDepartment]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@did	int	4
@name	varchar(10)	10
@description	varchar(100)	100
@location	nvarchar(20)	40
@mgr_id	int	4

## **SQL Script**

```
CREATE PROC [dbo].[updateDepartment] @did INT , @name VARCHAR(10)='',@description VARCHAR(100)='', @location NVARCHAR(20)='',@mgr_id INT=-1

AS

BEGIN TRY

IF @name!=''

UPDATE department SET dname=@name WHERE did=@did

IF @description!=''

UPDATE department SET Description=@description WHERE did=@did

IF @location!=''

UPDATE Department SET Location=@location

IF @mgr_id!=-1

UPDATE department SET Mng_id=@mgr_id WHERE Did=@did

END TRY

BEGIN CATCH

SELECT ERROR_MESSAGE()

END CATCH

GO
```

## Uses

#### [dbo].[Department]

# [dbo].[updateExam]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

## **Parameters**

Name	Data Type	Max Length (Bytes)
@Exmld	int	4
@date	date	3
@duration	int	4

```
CREATE PROCEDURE [dbo].[updateExam] @ExmId INT=-1,@date DATE ='1600-01-01',@duration
INT = -1
WITH ENCRYPTION
AS
BEGIN
IF EXISTS (SELECT e.Exm_id FROM Exams e WHERE e.Exm_id=@ExmId)
BEGIN TRY
BEGIN
   IF(@date!='1600-01-01')
      BEGIN
         UPDATE Exams SET Date=@date WHERE @ExmId = Exm_id
      END
   IF(@duration!=-1)
   BEGIN
      BEGIN
            UPDATE Exams SET Duration=@duration WHERE @ExmId = Exm id
          END
   END
END
END TRY
```

```
BEGIN CATCH

SELECT 'error'

END CATCH

ELSE

select'Exam does not exist'

END

GO
```

[dbo].[Exams]

# [dbo].[updateInstructoByID]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@fname	nvarchar(70)	140
@Iname	nvarchar(70)	140
@degree	nvarchar(70)	140
@sal	int	4
@address	nvarchar(70)	140
@phone	int	4
@supervisor	int	4

```
CREATE proc [dbo].[updateInstructoByID] @id INT, @fname nvarchar(70)='',@lname nvarchar(70) ='',@degree NVARCHAR(70)='', @sal INT=-1 , @address nvarchar(70)='',@phone int=-1,@supervisor INT=-1 as

if exists(select Ins_id from Instructor where Ins_id = @id)

begin

begin try

if @fname != ''

update Instructor set Fname=@fname where Ins_id = @id

if @lname != ''

update Instructor set Lname=@lname where Ins_id = @id

if @degree != ''

update Instructor set Academics_Degree=@degree where Ins_id = @id

if @sal != -1

update Instructor set Salary=@sal where Ins_id = @id

if @phone != 0

update Instructor set Phone=@phone where Ins_id = @id

if @address != ''
```

```
update Instructor set Address=@address where Ins_id = @id
if @supervisor != -1
update Instructor set Super_id=@supervisor where Ins_id = @id
end try
begin catch
select 'Error'
end catch
end
else select 'Instructor Does Not Exists'
GO
```

[dbo].[Instructor]

## [dbo].[updateInstructorCourse]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@ins_id	int	4
@crs_id	int	4
@eval	nvarchar(70)	140
@ins_new	int	4
@crs_new	int	4

```
CREATE proc [dbo].[updateInstructorCourse] @ins id INT ,@crs id INT, @eval
NVARCHAR(70)='', @ins_new INT =-1, @crs_new INT =-1
begin try
if(@ins_new!=-1)
       IF EXISTS(SELECT * FROM Instructor_Course ic WHERE Ins_id=@ins_id AND
Crs_id=@crs_id)
       update Instructor Course set Ins id-@ins new where Ins id-@ins id AND
Crs id=@crs id
       END
       ELSE SELECT 'Not Found'
   END
if(@crs new!=-1)
   IF EXISTS(SELECT * FROM Instructor Course ic WHERE Ins id=@ins id AND
Crs id=@crs id)
       update Instructor Course set Crs id-@crs new where Ins id-@ins id AND
Crs_id=@crs_id
       END
       ELSE SELECT 'Not Found'
   END
if(@eval !='')
```

```
BEGIN

IF EXISTS (SELECT * FROM Instructor_Course ic WHERE Ins_id=@ins_id AND Crs_id=@crs_id)

BEGIN

update Instructor_Course set Evaluation=@eval where Ins_id=@ins_id AND Crs_id=@crs_id

END

ELSE SELECT 'Not Found'

END

end try
begin catch
select 'Error'
end CATCH
GO
```

[dbo].[Instructor\_Course]

# [dbo].[updateQuestionByID]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

## **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@qstContent	varchar(200)	200
@ModelAns	varchar(10)	10
@Qstgrd	int	4
@choiceA	varchar(200)	200
@choiceB	varchar(200)	200
@choiceC	varchar(200)	200
@choiceD	varchar(200)	200

```
CREATE proc [dbo].[updateQuestionByID]
(@id INT
,@qstContent VARCHAR(200) = ''
,@ModelAns VARCHAR(10)=''
,@Qstgrd INT= -1
,@choiceA VARCHAR(200) = ''
,@choiceB VARCHAR(200) = ''
,@choiceC VARCHAR(200) = ''
,@choiceD VARCHAR(200) = ''
if exists(select Qst_id from Questions where Qst_id = @id)
begin
begin
if @qstContent != ''
update Questions set Question=@qstContent where Qst id = @id
if @ModelAns != ''
update Questions set Model_Answer=@ModelAns where Qst_id = @id
```

```
if @Qstgrd != -1
update Questions set Qst_Grade=@Qstgrd where Qst_id = @id
DECLARE @type VARCHAR(20) =(SELECT type FROM questions WHERE qst id = @id)
If @type = 'mcq'
BEGIN
   if @choiceA != ''
  begin
   update Question Choice set Choice=@choiceA
   where choice = (SELECT choice FROM question choice WHERE qst id = @id
   ORDER BY qst id OFFSET 0 ROWS FETCH NEXT 1 ROWS ONLY)
   END
   if @choiceB != ''
   BEGIN
   update Question Choice set Choice=@choiceB
   where choice = (SELECT choice FROM question choice WHERE qst id = @id
   ORDER BY qst_id OFFSET 1 ROWS FETCH NEXT 1 ROWS ONLY)
   END
   if @choiceC != ''
   BEGIN
   update Question_Choice set Choice=@choiceC
   where choice = (SELECT choice FROM question choice WHERE qst id = @id
   ORDER BY qst id OFFSET 2 ROWS FETCH NEXT 1 ROWS ONLY)
   if @choiceD != ''
   BEGIN
   update Question Choice set Choice=@choiceD
   where choice = (SELECT choice FROM question choice WHERE qst id = @id
   ORDER BY qst id OFFSET 3 ROWS FETCH NEXT 1 ROWS ONLY)
   END
END
ELSE
   BEGIN
      SELECT 'true & false'
   END
end
--begin catch
   --select 'Error'
--end catch
else select 'no question found'
GO
```

[dbo].[Question\_Choice]

[dbo].[Questions]

# [dbo].[updateTopic]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

## **Parameters**

Name	Data Type	Max Length (Bytes)
@topId	int	4
@topName	varchar(50)	50
@crsId	int	4

```
CREATE PROCEDURE [dbo].[updateTopic]
(@topId INT=-1 , @topName VARCHAR(50)='', @crsId INT=-1)
WITH ENCRYPTION
IF EXISTS (SELECT Top_id FROM Topic t WHERE @topId=t.Top_id)
BEGIN TRY
BEGIN
   IF (@topName!='')
       BEGIN
          UPDATE Topic SET Top Name=@topName WHERE Top id = @topId
       END
    IF (@crsId!=-1)
           UPDATE Topic SET Crs id=@crsId WHERE Top id = @topId
       END
   IF (@topName!='') AND (@crsId!=-1)
   UPDATE Topic SET Top_Name=@topName,Crs_id=@crsId WHERE Top_id = @topId
END
END TRY
BEGIN CATCH
  SELECT 'error'
END CATCH
```

```
ELSE
select'Topic does not exist'
GO
```

[dbo].[Topic]

# [dbo].[updateWorkIn]

## **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Encrypted	True

## **Parameters**

Name	Data Type	Max Length (Bytes)
@insld	int	4
@depld	int	4
@WorkingHours	int	4
@newInsId	int	4
@newDepId	int	4

```
CREATE PROCEDURE [dbo].[updateWorkIn] (@insId INT=-1 , @depId INT=-1 , @WorkingHours
INT=-1,@newInsId INT=-1 , @newDepId INT=-1)
WITH ENCRYPTION
AS
BEGIN TRY
   IF(@newInsId!=-1)
       BEGIN
           UPDATE Work In SET Ins id=@newInsId
           WHERE @insId=Ins_id AND @depId=Did
       END
    IF(@newDepId!=-1)
       BEGIN
           UPDATE Work_In SET Did=@newDepId
           WHERE @insId=Ins id AND @depId=Did
       END
    IF(@WorkingHours!=-1)
           UPDATE Work_In SET Working_Hours=@WorkingHours
           WHERE( @insId=Ins_id AND @depId=Did )
       END
END TRY
```

```
BEGIN CATCH
SELECT 'Error'
END CATCH
GO
```

[dbo].[Work\_In]



## Objects

Name
dbo
guest
Instructor_Mohammed
Student_A



## **Properties**

Property	Value
Туре	WindowsUser
Login Name	DESKTOP-EKCK12U\RadwaElgammal
Default Schema	dbo

## **Database Level Permissions**

Туре	Action
CONNECT	Grant

## **SQL Script**

GO



## **Properties**

Property	Value
Туре	SqlUser
Default Schema	guest

## SQL Script

GO

# **▲** Instructor\_Mohammed

## **Properties**

Property	Value
Туре	SqlUser
Login Name	Instructor_Mohammed
Default Schema	dbo

## **Database Level Permissions**

Туре	Action
CONNECT	Grant

## **SQL Script**

CREATE USER [Instructor\_Mohammed] FOR LOGIN [Instructor\_Mohammed]

# ♣ Student\_A

## **Properties**

Property	Value
Туре	SqlUser
Login Name	Student_A
Default Schema	dbo

## **Database Level Permissions**

Туре	Action
CONNECT	Grant

```
CREATE USER [Student_A] FOR LOGIN [Student_A]
```

## La Database Roles

## Objects

Name
db_accessadmin
db_backupoperator
db_datareader
db_datawriter
db_ddladmin
db_denydatareader
db_denydatawriter
db_owner
db_securityadmin
public

## ♣ db\_accessadmin

## **Properties**

Property	Value
Owner	dbo

# db\_backupoperator

## **Properties**

Property	Value
Owner	dbo

# ♣ db\_datareader

## **Properties**

Property	Value
Owner	dbo

# db\_datawriter

## **Properties**

Property	Value
Owner	dbo

# db\_ddladmin

## **Properties**

Property	Value
Owner	dbo

# db\_denydatareader

## **Properties**

Property	Value
Owner	dbo

# db\_denydatawriter

## **Properties**

Property	Value
Owner	dbo

## db\_owner

## **Properties**

Property	Value
Owner	dbo

# db\_securityadmin

## **Properties**

Property	Value
Owner	dbo

# **♣** public

## **Properties**

Property	Value
Owner	dbo