# (local)\SQL2016 Documentation

# **ExamSystem**

Server (local)\SQL2016

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Created 28 February, 2020 1:09:23 PM

File Path E:\Y\ITI\_intake40\Advanced SQL & BI\Project\Final\ExamSystemDB\_documentation-2020-02-28T13-

09-23.pdf

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# **■** (local)\SQL2016

# Databases (1)

• ExamSystem

# **Server Properties**

Property	Value
Product	Microsoft SQL Server
Version	13.0.1601.5
Language	English (United States)
Platform	NT x64
Edition	Enterprise Edition (64-bit)
Engine Edition	3 (Enterprise)
Processors	4
OS Version	6.3 (18362)
Physical Memory	8103
Is Clustered	False
Root Directory	C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016\MSSQL
Collation	SQL_Latin1_General_CP1_CI_AS

# **Server Settings**

Property	Value
Default data file path	C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016\MSSQL\DATA\
Default backup file path	C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016\MSSQL\Backup
Default log file path	C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016\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	2
Optimize for ad hoc workloads	False

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Databases (1)

• ExamSystem

# **目 ExamSystem Database**

# **Database Properties**

Property	Value		
SQL Server Version	SQL Server 2016		
Compatibility Level	SQL Server 2016		
Last backup time	02/22/2020		
Last log backup time	-		
Creation date	Feb 20 2020		
Users	4		
Database Encryption Enabled	False		
Database Encryption Algorithm	None		
Database size	16.00 MB		
Unallocated space	3.87 MB		

# **Database Options**

Property	Value
Compatibility Level	130
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	de0bb0df-40e6-41f1-84f1-e1547cbf9f97
Service broker enabled	False
Log reuse wait	LOG_BACKUP
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	YOMNA\Yomna

## Files

Name	Туре	Size	Maxsize	Autogrowth	File Name
ExamSystem	Data	8.00 MB	unlimited	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016\MSSQL\DA TA\ExamSystem.mdf
ExamSystem_log	Log	8.00 MB	2048.00 GB	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016\MSSQL\DA

	TA\ExamSystem_log.ldf
--	-----------------------

# **■ Tables**

#### **Objects**

#### Name

#### dbo.Exams

- Exams table has information of the randomly generated exam (ID, date) and ID of the subject of the exam (foreign key)

#### dbo.Exams Questions

- The table represents the relation between each generated Exam and the random 10 questions in it with the answers of these questions
- The Exam ID is unique (only for one student) so exam ID and student ID are related in another table (Exams\_-Students) and here only the exam ID is used with its answers

#### dbo.Exams Students

- The table represents the relation between each random generated exam and the (only) student who has taken this exam
- An exam can be solved by ONLY ONE student, while the student can take multiple exams (even per subject)

#### dbo.Instructors

Table having the information (ID, name) of the instructors

#### dbo.mcqQuestions

#### dbo.Questions

- Table of the available questions in all subjects with forgein key specifying the subject of every question.
- Also with type of each question (mcq or True/False), its weight of marks (mcq:2 marks, true/false: 1 mark), the question's statement itself, its ID and its model answer

#### dbo.Students

- Students' information (ID, first name, last name) with foreign key representing the track ID in which each student is enrolled in

(The student can NOT enroll in more than one track at the same time)

#### dbo.Subjects

- Subjects Information (ID, name) with foreign key representing the instructor of the subject
- A subject may be repeated in different tracks, so the relation between subjects and tracks is many-to-many represented in another table (Subjects\_tracks)

#### dbo.Subjects tracks

- A subject may be repeated in different tracks, so the table represents the track(s) in which each subject is related to
- Track has many subjects

#### dbo.tfQuestions

#### dbo.Topics

- The tabe represents the topics (Topic Id, name) in each subject

## dbo.Tracks

- Tracks Information (ID, name)

# [dbo].[Exams]

# MS\_Description

- Exams table has information of the randomly generated exam (ID, date) and ID of the subject of the exam (foreign key)

## **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	13
Created	1:21:45 AM 28 February, 2020
Last Modified	1:08:32 PM 28 February, 2020

#### Columns

Key	Name	Data Type	Computed	Max Length (Bytes)	Nullability	Identity
PKP C	e_id	int		4	NOT NULL	100 - 1
FK	subj_id	int		4	NOT NULL	
	e_date	nvarchar(4000)	True	8000	NULL allowed	

# **Computed columns**

Name	Column definition
e_date	(format(getdate(),'dd-MM-yyyy'))

#### Indexes

Key	Name	Key Columns	Unique
PKC	PK_Exams_Su3E2ED64AEB3914E9	e_id	True

# Foreign Keys

Name	Columns
e_subj_fk	subj_id->[dbo].[Subjects].[subj_id]

# **SQL Script**

CREATE TABLE [dbo].[Exams]

```
(
[e_id] [int] NOT NULL IDENTITY(100, 1),
[subj_id] [int] NOT NULL,
[e_date] AS (format(getdate(),'dd-MM-yyyy'))
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Exams] ADD CONSTRAINT [PK_Exams_Su_3E2ED64AEB3914E9] PRIMARY KEY
CLUSTERED ([e_id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Exams] ADD CONSTRAINT [e_subj_fk] FOREIGN KEY ([subj_id]) REFERENCES
[dbo].[Subjects] ([subj_id])
GO
EXEC sp_addextendedproperty N'MS_Description', N'- Exams table has information of the randomly generated exam (ID, date) and ID of the subject of the exam (foreign key)',
'SCHEMA', N'dbo', 'TABLE', N'Exams', NULL, NULL
GO
```

[dbo].[Subjects]

#### **Used By**

[dbo].[Exams\_Questions] [dbo].[Exams\_Students] [dbo].[ExamGeneration] [dbo].[getGrade] [dbo].[selectExams]

# [dbo].[Exams\_Questions]

# MS\_Description

- The table represents the relation between each generated Exam and the random 10 questions in it with the answers of these questions
- The Exam ID is unique (only for one student) so exam ID and student ID are related in another table (Exams\_Students) and here only the exam ID is used with its answers

## **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	100
Created	10:29:22 PM 20 February, 2020
Last Modified	1:21:46 AM 28 February, 2020

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	e_id	int	4	NOT NULL
PKO C FKO	q_id	int	4	NOT NULL
	q_ans	varchar(5)	5	NULL allowed

# Indexes

Key	Name	Key Columns	Unique
PK G	PK_Exams_Qu_2DFB4D7BFB712732	e_id, q_id	True

## Foreign Keys

Name	Columns
eq_e_fk	e_id->[dbo].[Exams].[e_id]
eq_q_fk	q_id->[dbo].[Questions].[q_id]

# **SQL Script**

CREATE TABLE [dbo].[Exams\_Questions]

```
[e id] [int] NOT NULL,
[q id] [int] NOT NULL,
[q ans] [varchar] (5) COLLATE SQL Latin1 General CP1 CI AS NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Exams_Questions] ADD CONSTRAINT [PK__Exams_Qu__2DFB4D7BFB712732]
PRIMARY KEY CLUSTERED ([e id], [q id]) ON [PRIMARY]
ALTER TABLE [dbo]. [Exams Questions] ADD CONSTRAINT [eq e fk] FOREIGN KEY ([e id])
REFERENCES [dbo].[Exams] ([e id])
ALTER TABLE [dbo]. [Exams Questions] ADD CONSTRAINT [eq_q_fk] FOREIGN KEY ([q_id])
REFERENCES [dbo].[Questions] ([q id])
EXEC sp_addextendedproperty N'MS_Description', N'- The table represents the relation
between each generated Exam and the random 10 questions in it with the answers of these
questions
- The Exam ID is unique (only for one student) so exam ID and student ID are related in
another table (Exams Students) and here only the exam ID is used with its answers',
'SCHEMA', N'dbo', 'TABLE', N'Exams Questions', NULL, NULL
GO
```

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

## **Used By**

 $[dbo]. [DeleteFromExam\_QuesTable] \\$ 

[dbo].[ExamAnswers]

[dbo].[ExamCorrection]

[dbo].[ExamGeneration]

[dbo].[ExamQuest]

[dbo].[insertE\_St]

[dbo].[InsertExam\_QuesTable]

[dbo].[InsertExams\_QuestionsTable]

[dbo].[report6 proc]

[dbo].[selectExam\_QuesTable]

 $[dbo]. [UpdatExam\_QuesTable] \\$ 

# [dbo].[Exams\_Students]

## MS\_Description

- The table represents the relation between each random generated exam and the (only) student who has taken this exam
- An exam can be solved by ONLY ONE student, while the student can take multiple exams (even per subject)

# **Properties**

Property	Value	
Row Count (~)	7	
Created	10:29:22 PM 20 February, 2020	
Last Modified	1:21:46 AM 28 February, 2020	

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	e_id	int	4	NOT NULL
F	st_id	int	4	NULL allowed
	grade_percentage	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PKP C	PKExams_St3E2ED64AEE0EFFF2	e_id	True

# Foreign Keys

Name	Columns
e_fk	e_id->[dbo].[Exams].[e_id]
st_fk	st_id->[dbo].[Students].[st_id]

```
CREATE TABLE [dbo].[Exams_Students]

(
[e_id] [int] NOT NULL,
[st_id] [int] NULL,
[grade_percentage] [int] NULL
```

```
ON [PRIMARY]

GO

ALTER TABLE [dbo].[Exams_Students] ADD CONSTRAINT [PK_Exams_St_3E2ED64AEE0EFFF2]

PRIMARY KEY CLUSTERED ([e_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Exams_Students] ADD CONSTRAINT [e_fk] FOREIGN KEY ([e_id])

REFERENCES [dbo].[Exams] ([e_id])

GO

ALTER TABLE [dbo].[Exams_Students] ADD CONSTRAINT [st_fk] FOREIGN KEY ([st_id])

REFERENCES [dbo].[Students] ([st_id])

GO

EXEC sp_addextendedproperty N'MS_Description', N'- The table represents the relation between each random generated exam and the (only) student who has taken this exam

- An exam can be solved by ONLY ONE student, while the student can take multiple exams (even per subject)', 'SCHEMA', N'dbo', 'TABLE', N'Exams_Students', NULL, NULL

GO
```

[dbo].[Exams] [dbo].[Students]

## **Used By**

[dbo].[ExamAnswers]
[dbo].[ExamCorrection]

[dbo].[getGrade]

[dbo].[insertE\_St]

[dbo].[report6\_2\_proc]

[dbo].[report6\_proc]

[dbo].[selectE St]

[dbo].[updateE\_St]

# [dbo].[Instructors]

#### MS\_Description

Table having the information (ID, name) of the instructors

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	3
Created	4:44:55 PM 22 February, 2020
Last Modified	10:26:49 PM 26 February, 2020

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKP C	instr_id	int	4	NOT NULL
	instr_name	varchar(10)	10	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK C	PK_Instructors	instr_id	True

```
CREATE TABLE [dbo].[Instructors]

(
[instr_id] [int] NOT NULL,
[instr_name] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Instructors] ADD CONSTRAINT [PK_Instructors] PRIMARY KEY CLUSTERED

([instr_id]) ON [PRIMARY]

GO

EXEC sp_addextendedproperty N'MS_Description', N'Table having the information (ID, name) of the instructors ', 'SCHEMA', N'dbo', 'TABLE', N'Instructors', NULL, NULL

GO
```

# **Used By**

[dbo].[Subjects]

[dbo].[deleteInstr]

[dbo].[getinstructor]

[dbo].[insertInstr]

[dbo].[selectInstr]

[dbo].[updateInstr]

# [dbo].[mcqQuestions]

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	41
Created	2:41:10 AM 26 February, 2020
Last Modified	2:41:11 AM 26 February, 2020

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	q_id	int	4	NOT NULL
	choiceA	varchar(100)	100	NULL allowed
	choiceB	varchar(100)	100	NULL allowed
	choiceC	varchar(100)	100	NULL allowed
	choiceD	varchar(100)	100	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PKC	PKmcqQuest3D59B310DE6E4E64	q_id	True

# Foreign Keys

Name	Columns
mcq_q_fk	q_id->[dbo].[Questions].[q_id]

```
CREATE TABLE [dbo].[mcqQuestions]

(
[q_id] [int] NOT NULL,
[choiceA] [varchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[choiceB] [varchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[choiceC] [varchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[choiceD] [varchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
```

## Project > (local)\SQL2016 > User databases > ExamSystem > Tables > dbo.mcqQuestions

```
ALTER TABLE [dbo].[mcqQuestions] ADD CONSTRAINT [PK_mcqQuest_3D59B310DE6E4E64]
PRIMARY KEY CLUSTERED ([q_id]) ON [PRIMARY]

GO
ALTER TABLE [dbo].[mcqQuestions] ADD CONSTRAINT [mcq_q_fk] FOREIGN KEY ([q_id])
REFERENCES [dbo].[Questions] ([q_id])
GO
```

#### Uses

[dbo].[Questions]

## **Used By**

[dbo].[DeletemcqQuestions]

[dbo].[ExamQuest]

[dbo].[InsertIntomcqQuestions]

[dbo].[SelectmcqQuestions]

[dbo].[UpdatemcqQuestions]

# [dbo].[Questions]

## MS\_Description

- Table of the available questions in all subjects with forgein key specifying the subject of every question.
- Also with type of each question (mcq or True/False), its weight of marks (mcq:2 marks, true/false: 1 mark), the question's statement itself, its ID and its model answer

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	52
Created	10:27:20 PM 20 February, 2020
Last Modified	10:30:42 PM 26 February, 2020

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK C	q_id	int	4	NOT NULL
	q_statement	varchar(150)	150	NULL allowed
	q_modelAnswer	varchar(5)	5	NULL allowed
	q_weight	int	4	NULL allowed
	q_type	varchar(5)	5	NULL allowed
FK	subj_id	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK C	PKQuestion3D59B3102C6FE6D3	q_id	True

# Foreign Keys

Name	Columns
q_subj_fk	subj_id->[dbo].[Subjects].[subj_id]

# **SQL Script**

CREATE TABLE [dbo].[Questions]

```
[q_id] [int] NOT NULL,
[q statement] [varchar] (150) COLLATE SQL Latin1 General CP1 CI AS NULL,
[q modelAnswer] [varchar] (5) COLLATE SQL Latin1 General CP1 CI AS NULL,
[q_weight] [int] NULL,
[q type] [varchar] (5) COLLATE SQL Latin1 General CP1 CI AS NULL,
[subj_id] [int] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Questions] ADD CONSTRAINT [PK Question 3D59B3102C6FE6D3] PRIMARY
KEY CLUSTERED ([q id]) ON [PRIMARY]
ALTER TABLE [dbo]. [Questions] ADD CONSTRAINT [q subj fk] FOREIGN KEY ([subj id])
REFERENCES [dbo].[Subjects] ([subj id])
GO
EXEC sp addextendedproperty N'MS Description', N'- Table of the available questions in
all subjects with forgein key specifying the subject of every question.
- Also with type of each question (mcq or True/False), its weight of marks (mcq:2
marks, true/false: 1 mark), the question''s statement itself, its ID and its model answer', 'SCHEMA', N'dbo', 'TABLE', N'Questions', NULL, NULL
```

[dbo].[Subjects]

#### **Used By**

[dbo].[Exams\_Questions]

[dbo].[mcqQuestions]

[dbo].[tfQuestions]

[dbo].[DeleteFromQuestions]

[dbo].[ExamCorrection]

[dbo].[ExamGeneration]

[dbo].[ExamQuest]

[dbo].[InsertIntoQuestions]

[dbo].[SelectQuestions]

[dbo].[UpdateQuestions]

# [dbo].[Students]

#### MS\_Description

- Students' information (ID, first name, last name) with foreign key representing the track ID in which each student is enrolled in

(The student can NOT enroll in more than one track at the same time)

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	5
Created	10:27:20 PM 20 February, 2020
Last Modified	10:33:08 PM 26 February, 2020

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	st_id	int	4	NOT NULL
	st_fname	varchar(10)	10	NULL allowed
	st_Iname	varchar(10)	10	NULL allowed
FK	t_id	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK	PKStudentsA85E81CF77159F95	st_id	True

# Foreign Keys

Name	Columns
t_st_fk	t_id->[dbo].[Tracks].[t_id]

```
CREATE TABLE [dbo].[Students]

(
[st_id] [int] NOT NULL,

[st_fname] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[st_lname] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
```

```
[t_id] [int] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Students] ADD CONSTRAINT [PK__Students__A85E81CF77159F95] PRIMARY
KEY CLUSTERED ([st_id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Students] ADD CONSTRAINT [t_st_fk] FOREIGN KEY ([t_id]) REFERENCES
[dbo].[Tracks] ([t_id])
GO
EXEC sp_addextendedproperty N'MS_Description', N'- Students'' information (ID, first name, last name) with foreign key representing the track ID in which each student is enrolled in
(The student can NOT enroll in more than one track at the same time)', 'SCHEMA', N'dbo', 'TABLE', N'Students', NULL, NULL
GO
```

#### [dbo].[Tracks]

#### **Used By**

[dbo].[Exams Students]

[dbo].[DeleteStudents]

[dbo].[getGrade]

[dbo].[getinstructor]

[dbo].[getstudbydept]

[dbo].[insertE St]

[dbo].[InsertIntoStudents]

[dbo].[report6\_proc]

[dbo].[SelectStudents]

[dbo].[UpdateStudentds]

# [dbo].[Subjects]

#### MS\_Description

- Subjects Information (ID, name) with foreign key representing the instructor of the subject
- A subject may be repeated in different tracks, so the relation between subjects and tracks is many-to-many represented in another table (Subjects\_tracks)

#### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	3
Created	4:54:34 PM 22 February, 2020
Last Modified	1:21:45 AM 28 February, 2020

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	subj_id	int	4	NOT NULL
	subj_name	varchar(10)	10	NULL allowed
FK	instr_id	int	4	NOT NULL

#### Indexes

Key	Name	Key Columns	Unique
PKP C	PKSubjectsC44184630B7E5126	subj_id	True

## Foreign Keys

Name	Columns
FK_Subjects_Instructors	instr_id->[dbo].[Instructors].[instr_id]

```
CREATE TABLE [dbo].[Subjects]
(
[subj_id] [int] NOT NULL,
[subj_name] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[instr_id] [int] NOT NULL
```

```
ON [PRIMARY]

GO

ALTER TABLE [dbo].[Subjects] ADD CONSTRAINT [PK_Subjects_C44184630B7E5126] PRIMARY

KEY CLUSTERED ([subj_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Subjects] ADD CONSTRAINT [FK_Subjects_Instructors] FOREIGN KEY

([instr_id]) REFERENCES [dbo].[Instructors] ([instr_id])

GO

EXEC sp_addextendedproperty N'MS_Description', N'- Subjects Information (ID, name) with foreign key representing the instructor of the subject

- A subject may be repeated in different tracks, so the relation between subjects and tracks is many-to-many represented in another table (Subjects_tracks)', 'SCHEMA', N'dbo', 'TABLE', N'Subjects', NULL, NULL

GO
```

[dbo].[Instructors]

#### **Used By**

[dbo].[Exams]

[dbo].[Questions]

[dbo].[Subjects\_tracks]

[dbo].[Topics]

[dbo].[CourseTopic]

[dbo].[ExamGeneration]

[dbo].[getGrade]

[dbo].[getinstructor]

[dbo].[insertTopic]

[dbo].[updateTopic]

# [dbo].[Subjects\_tracks]

## MS\_Description

- A subject may be repeated in different tracks, so the table represents the track(s) in which each subject is related to
- Track has many subjects

# **Properties**

Property	Value
Row Count (~)	4
Created	5:50:36 PM 25 February, 2020
Last Modified	10:38:02 PM 26 February, 2020

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKD C FKD	subj_id	int	4	NOT NULL
PKC FKD	t_id	int	4	NOT NULL

#### Indexes

Key	Name	Key Columns	Unique
PK C	PK_subjects_tracks	subj_id, t_id	True

## Foreign Keys

Name	Columns
FK_subjects_tracks_subjects	subj_id->[dbo].[Subjects].[subj_id]
FK_subjects_tracks_tracks	t_id->[dbo].[Tracks].[t_id]

```
CREATE TABLE [dbo].[Subjects_tracks]

(
[subj_id] [int] NOT NULL,

[t_id] [int] NOT NULL

) ON [PRIMARY]
```

```
ALTER TABLE [dbo].[Subjects_tracks] ADD CONSTRAINT [PK_subjects_tracks] PRIMARY KEY CLUSTERED ([subj_id], [t_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Subjects_tracks] ADD CONSTRAINT [FK_subjects_tracks_subjects]

FOREIGN KEY ([subj_id]) REFERENCES [dbo].[Subjects] ([subj_id])

GO

ALTER TABLE [dbo].[Subjects_tracks] ADD CONSTRAINT [FK_subjects_tracks_tracks] FOREIGN

KEY ([t_id]) REFERENCES [dbo].[Tracks] ([t_id])

GO

EXEC sp_addextendedproperty N'MS_Description', N'- A subject may be repeated in different tracks, so the table represents the track(s) in which each subject is related to

- Track has many subjects', 'SCHEMA', N'dbo', 'TABLE', N'Subjects_tracks', NULL, NULL GO
```

[dbo].[Subjects] [dbo].[Tracks]

#### **Used By**

[dbo].[getinstructor]
[dbo].[selectSubj\_Track]

# [dbo].[tfQuestions]

#### **Properties**

Property	Value	
Collation	SQL_Latin1_General_CP1_CI_AS	
Row Count (~)	10	
Created	10:27:20 PM 20 February, 2020	
Last Modified	10:27:20 PM 20 February, 2020	

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKO FKO	q_id	int	4	NOT NULL
	choiceA	varchar(6)	6	NULL allowed
	choiceB	varchar(6)	6	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK G	PK_tfQuesti_3D59B3104FBA1CFB	q_id	True

## Foreign Keys

Name	Columns
tf_q_fk	q_id->[dbo].[Questions].[q_id]

```
CREATE TABLE [dbo].[tfQuestions]

(
  [q_id] [int] NOT NULL,
  [choiceA] [varchar] (6) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
  [choiceB] [varchar] (6) COLLATE SQL_Latin1_General_CP1_CI_AS NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[tfQuestions] ADD CONSTRAINT [PK_tfQuesti_3D59B3104FBA1CFB] PRIMARY

KEY CLUSTERED ([q_id]) ON [PRIMARY]

GO

ALTER TABLE [dbo].[tfQuestions] ADD CONSTRAINT [tf_q_fk] FOREIGN KEY ([q_id])
```

## Project > (local)\SQL2016 > User databases > ExamSystem > Tables > dbo.tfQuestions

REFERENCES [dbo].[Questions] ([q\_id])

GO

Uses

[dbo].[Questions]

# [dbo].[Topics]

## MS\_Description

- The tabe represents the topics (Topic Id, name) in each subject

#### **Properties**

Property	Value	
Collation	SQL_Latin1_General_CP1_CI_AS	
Row Count (~)	2	
Created	5:02:13 PM 22 February, 2020	
Last Modified	10:39:04 PM 26 February, 2020	

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	top_id	int	4	NOT NULL
	top_name	varchar(10)	10	NULL allowed
FK	subj_id	int	4	NULL allowed

#### Indexes

Key	Name	Key Columns	Unique
PK C	PK_Topics	top_id	True

# Foreign Keys

Name	Columns
FK_topic_subject	subj_id->[dbo].[Subjects].[subj_id]

```
CREATE TABLE [dbo].[Topics]

(
[top_id] [int] NOT NULL,
[top_name] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[subj_id] [int] NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Topics] ADD CONSTRAINT [PK_Topics] PRIMARY KEY CLUSTERED ([top_id])
```

```
ON [PRIMARY]

GO

ALTER TABLE [dbo].[Topics] ADD CONSTRAINT [FK_topic_subject] FOREIGN KEY ([subj_id])

REFERENCES [dbo].[Subjects] ([subj_id])

GO

EXEC sp_addextendedproperty N'MS_Description', N'- The tabe represents the topics

(Topic Id, name) in each subject', 'SCHEMA', N'dbo', 'TABLE', N'Topics', NULL, NULL

GO
```

[dbo].[Subjects]

#### **Used By**

[dbo].[CourseTopic]

[dbo].[deleteTopic]

[dbo].[insertTopic]

[dbo].[selectTopic]

[dbo].[updateTopic]

# [dbo].[Tracks]

#### MS\_Description

- Tracks Information (ID, name)

#### **Properties**

Property	Value	
Collation	SQL_Latin1_General_CP1_CI_AS	
Row Count (~)	2	
Created	10:27:20 PM 20 February, 2020	
Last Modified	10:39:44 PM 26 February, 2020	

#### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK G	t_id	int	4	NOT NULL
	t_name	varchar(10)	10	NULL allowed

#### **Indexes**

Key	Name	Key Columns	Unique
PK C	PKTracksE579775FF2BEF0C6	t_id	True

```
CREATE TABLE [dbo].[Tracks]

(
   [t_id] [int] NOT NULL,
   [t_name] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL

) ON [PRIMARY]

GO

ALTER TABLE [dbo].[Tracks] ADD CONSTRAINT [PK__Tracks__E579775FF2BEF0C6] PRIMARY KEY
CLUSTERED ([t_id]) ON [PRIMARY]

GO

EXEC sp_addextendedproperty N'MS_Description', N'- Tracks Information (ID, name)',
   'SCHEMA', N'dbo', 'TABLE', N'Tracks', NULL, NULL

GO
```

# **Used By**

[dbo].[Students]

[dbo].[Subjects\_tracks]

[dbo].[DeleteTracks]

[dbo].[InsertIntoTracks]

[dbo].[SelectTracks]

[dbo].[UpdateTracks]

# **■** Stored Procedures

# Objects

Name
dbo.CourseTopic
dbo.DeleteFromExam_QuesTable
dbo.DeleteFromQuestions
dbo.deleteInstr
dbo.DeletemcqQuestions
dbo.DeleteStudents
dbo.deleteTopic
dbo.DeleteTracks
dbo.ExamAnswers
dbo.ExamCorrection
dbo.ExamGeneration
dbo.ExamQuest
dbo.getGrade
dbo.getinstructor
dbo.getstudbydept
dbo.insertE_St
dbo.InsertExam_QuesTable
dbo.InsertExams_QuestionsTable
dbo.insertInstr
dbo.InsertIntomcqQuestions
dbo.InsertIntoQuestions
dbo.InsertIntoStudents
dbo.InsertIntoTracks
dbo.insertTopic
dbo.report6_2_proc
dbo.report6_proc
dbo.selectE_St
dbo.selectExam_QuesTable
dbo.selectExams
dbo.selectInstr
dbo.SelectmcqQuestions
dbo.SelectQuestions
dbo.SelectStudents
dbo.selectSubj_Track

bo.selectTopic
bo.SelectTracks
bo.updateE_St
bo.updateInstr
bo.UpdatemcqQuestions
bo.UpdateQuestions
bo.UpdateStudentds
bo.updateTopic
bo.UpdateTracks
bo.UpdatExam_QuesTable

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Course-Topic

[dbo].[CourseTopic]

#### **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].[CourseTopic] @id int

As

select Topics.subj_id ,subj_name, top_name

from [dbo].[Topics],[dbo].[Subjects]

where [dbo].[Topics].[subj_id] = [dbo].[Subjects].[subj_id] and

[dbo].[Topics].[subj_id] = @id

GO
```

#### Uses

[dbo].[Subjects] [dbo].[Topics]

# [dbo].[DeleteFromExam\_QuesTable]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE proc [dbo].[DeleteFromExam_QuesTable] @e_id int

As
begin
Delete from Exams_Questions
where e_id =@e_id
end

GO
```

#### Uses

[dbo].[Exams\_Questions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Delete-FromQuestions

[dbo].[DeleteFromQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
create proc [dbo].[DeleteFromQuestions] @q_id int
As
begin
Delete from Questions
where q_id =@q_id
end
GO
```

#### Uses

[dbo].[Questions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.delete-Instr

[dbo].[deleteInstr]

#### **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].[deleteInstr] @id INT
AS
DELETE FROM dbo.Instructors WHERE instr_id=@id
GO
```

#### Uses

[dbo].[Instructors]

### [dbo].[DeletemcqQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
create proc [dbo].[DeletemcqQuestions] @q_id int
As
begin
Delete from mcqQuestions
where q_id =@q_id
end
GO
```

#### Uses

[dbo].[mcqQuestions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Delete-Students

[dbo].[DeleteStudents]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
--exec UpdateStudentds 6, nour, mostafa, 2
create proc [dbo].[DeleteStudents] @st_id int
As
begin
Delete from Students
where st_id =@st_id
end
GO
```

#### Uses

[dbo].[Students]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.delete-Topic

[dbo].[deleteTopic]

#### **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].[deleteTopic] @id INT
AS
DELETE FROM dbo.Topics WHERE top_id=@id
GO
```

#### Uses

[dbo].[Topics]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Delete-Tracks

[dbo].[DeleteTracks]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
--exec UpdateTracks 4 , mobile
create proc [dbo].[DeleteTracks] @t_id int
As
begin
Delete from Tracks
where t_id =@t_id
end
GO
```

#### Uses

[dbo].[Tracks]

# [dbo].[ExamAnswers]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@e_id	int	4
@st_id	int	4
@a1	varchar(5)	5
@a2	varchar(5)	5
@a3	varchar(5)	5
@a4	varchar(5)	5
@a5	varchar(5)	5
@a6	varchar(5)	5
@a7	varchar(5)	5
@a8	varchar(5)	5
@a9	varchar(5)	5
@a10	varchar(5)	5

#### **SQL Script**

```
CREATE proc [dbo].[ExamAnswers] @e_id int, @st_id int, @a1 varchar(5), @a2 varchar(5), @a3 varchar(5), @a5 varchar(5), @a6 varchar(5), @a7 varchar(5), @a8 varchar(5), @a9 varchar(5), @a10 varchar(5)

As insert into Exams_Students(e_id, st_id) values(@e_id, @st_id)

declare @temp table(e_id int,q_id int,q_ans varchar(5),rn int) insert into @temp(e_id,q_id,q_ans,rn)
(select e_id,q_id,q_ans, ROW_NUMBER() over (order by e_id) as rn from Exams_Questions where e_id=@e_id)

update @temp set q_ans=@a1 where e_id=@e_id and rn = 1 update @temp set q_ans=@a2 where e_id=@e_id and rn = 2 update @temp set q_ans=@a3 where e_id=@e_id and rn = 3
```

### Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Exam-Answers

```
update @temp set q_ans=@a4 where e_id=@e_id and rn = 4

update @temp set q_ans=@a5 where e_id=@e_id and rn = 5

update @temp set q_ans=@a6 where e_id=@e_id and rn = 6

update @temp set q_ans=@a7 where e_id=@e_id and rn = 7

update @temp set q_ans=@a8 where e_id=@e_id and rn = 8

update @temp set q_ans=@a9 where e_id=@e_id and rn = 9

update @temp set q_ans=@a10 where e_id=@e_id and rn = 10

delete from Exams_Questions where e_id=@e_id

insert into Exams_Questions(e_id,q_id,q_ans)

(select e_id,q_id,q_ans

from @temp

where e_id=@e_id)

GO
```

#### Uses

[dbo].[Exams\_Questions] [dbo].[Exams\_Students]

## [dbo].[ExamCorrection]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE proc [dbo].[ExamCorrection] @e_id int
AS
Begin
declare @t table (result varchar(5), w int, Qtype varchar(5));
insert into @t
select
     when E.q_ans is NULL and Q.q_modelAnswer is NULL then 'true'
     when E.q_ans=Q.q_modelAnswer then 'true'
     else 'false'
  end as result, Q.q weight, Q.q type
{\tt from \ Exams\_Questions \ E}
inner join Questions Q
on E.q_id=Q.q_id
where E.e id=@e id
declare t cur cursor
   for select * from @t
   for read only
declare @count int=0;
declare @res varchar(5)
declare @w int
declare @QType varchar(5)
declare @total int=0
open t_cur
fetch t_cur into @res,@w,@QType
begin
   While @@fetch status=0
   begin
       if @res='true'
           begin
               set @count=@count+@w
```

```
end
       if @QType = 'mcq'
           begin
              set @total=@total+2
           end
        else if @QType = 'tf'
           begin
               set @total=@total+1
           fetch t_cur into @res ,@w,@QType
    end
end
select * from @t
select @count
select @total
set @count = (CAST(@count as float)/@total)*100 --calculate the grade percentage
percentage
update Exams Students set grade percentage=CAST(@count as int) where e id=@e id
--and st_id=@st_id
close t cur
deallocate t_cur
end
--execute ExamCorrection 106
GO
```

#### Uses

[dbo].[Exams\_Questions] [dbo].[Exams\_Students] [dbo].[Questions]

## [dbo].[ExamGeneration]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@Subj_name	varchar(10)	10
@ТF	int	4
@mcq	int	4

#### **SQL Script**

```
CREATE proc [dbo].[ExamGeneration] @Subj name varchar(10),@TF int ,@mcq int
insert into Exams(subj_id)
select subj id
from Subjects
where subj_name = @Subj_name
declare @lastRow int= IDENT_CURRENT ('Exams')
--InsertExams_QuestionsTable
insert into Exams Questions(e id,q id)
select top(@TF) @lastRow,q.q id
from Questions q, Subjects subj
where q.q_type = 'tf' and q.subj_id=subj.subj_id and subj.subj_name=@Subj_name
order by NEWID()
--InsertExams QuestionsTable
set @mcq = 10 - @TF --make sure number of questions is not more nor less than 10
insert into Exams_Questions(e_id,q_id)
select top(@mcq) @lastRow,q.q id
from Questions q, Subjects subj
where q.q_type = 'mcq' and q.subj_id=subj_subj_id and subj.subj_name=@Subj_name
order by NEWID()
GO
```

#### Uses

[dbo].[Exams]
[dbo].[Exams\_Questions]
[dbo].[Questions]
[dbo].[Subjects]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Exam-Quest



#### **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].[ExamQuest] @id int

As

select eq.q_id , q_statement,choiceA,choiceB,choiceC,choiceD

from Exams_Questions eq inner join Questions q

on eq.q_id= q.q_id

inner join mcqQuestions mcq

on q.q_id=mcq.q_id

where eq.q_id = q.q_id

and eq.e_id = @id

GO
```

#### Uses

[dbo].[Exams\_Questions] [dbo].[mcqQuestions] [dbo].[Questions]



#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE proc [dbo].[getGrade] @student_id int
as
select st_fname,subj_name ,MAX(grade_percentage) as grade
from Exams_Students Es,Students s,Subjects sub,Exams esub
where es.st_id=@student_id and es.e_id=esub.e_id and es.st_id=s.st_id
and esub.subj_id=sub.subj_id
group by st_fname, subj_name
GO
```

#### Uses

[dbo].[Exams] [dbo].[Exams\_Students] [dbo].[Students] [dbo].[Subjects]

# [dbo].[getinstructor]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE proc [dbo].[getinstructor] @instructor_id int
as
select inst.instr_id,inst.instr_Name,sub.subj_name , COUNT(st.st_id) as [Students
Number]
from Instructors inst ,Subjects sub, Students st, Subjects_tracks subT
where inst.instr_id=sub.instr_id and inst.instr_id=@instructor_id and st.t_id=subT.t_id
and sub.subj_id=subt.subj_id
group by inst.instr_id,inst.instr_Name,sub.subj_name
GO
```

#### Uses

[dbo].[Instructors]

[dbo].[Students]

[dbo].[Subjects]

[dbo].[Subjects\_tracks]

# [dbo].[getstudbydept]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
create proc [dbo].[getstudbydept] @trackNo int
as
select*from Students
where t_id=@trackNo
GO
```

#### Uses

[dbo].[Students]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.insertE\_- St

[dbo].[insertE\_St]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@eID	int	4
@stID	int	4
@sGrade	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[insertE_St] @eID INT, @stID INT, @sGrade INT

AS

IF EXISTS(SELECT st_id FROM dbo.Students WHERE st_id=@stID)

IF EXISTS(SELECT e_id FROM dbo.Exams_Questions WHERE e_id=@eID)

INSERT INTO dbo.Exams_Students VALUES(@eID,@stID,@sGrade)

GO
```

#### Uses

[dbo].[Exams\_Questions] [dbo].[Exams\_Students] [dbo].[Students]

# [dbo].[InsertExam\_QuesTable]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@e_id	int	4
@q_id	int	4
@q_ans	varchar(5)	5

#### **SQL Script**

```
-- stotored procedures to select, insert, update and delete into exam table

CREATE proc [dbo].[InsertExam_QuesTable] @e_id int, @q_id int, @q_ans varchar(5)

As

begin
insert into Exams_Questions(e_id,q_id,q_ans) values (@e_id,@q_id,@q_ans)

end

GO
```

#### Uses

[dbo].[Exams\_Questions]

# [dbo].[InsertExams\_QuestionsTable]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@t	tableType	max

#### **SQL Script**

```
CREATE proc [dbo].[InsertExams_QuestionsTable] @t tableType readonly
As
--begin
insert into Exams_Questions
select *
from Exams_Questions
GO
```

#### Uses

[dbo].[Exams\_Questions] [dbo].[tableType]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.insert-Instr

[dbo].[insertInstr]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@instName	varchar(10)	10

#### **SQL Script**

```
CREATE PROC [dbo].[insertInstr] @id INT, @instName VARCHAR(10)

AS
INSERT INTO dbo.Instructors
VALUES(0,@instName)
GO
```

#### Uses

[dbo].[Instructors]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Insert-IntomcqQuestions

### [dbo].[InsertIntomcqQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@q_id	int	4
@choiceA	varchar(50)	50
@choiceB	varchar(50)	50
@choiceC	varchar(50)	50
@choiceD	varchar(50)	50

#### **SQL Script**

```
-- stotored procedures to select, insert, update and delete into mcqQuestions table create proc [dbo].[InsertIntomcqQuestions] @q_id int, @choiceA varchar(50),@choiceB varchar(50),@choiceC varchar(50),@choiceD varchar(50)

As begin insert into mcqQuestions(q_id ,choiceA,choiceB,choiceC,choiceD) values (@q_id,@choice-A,@choiceB,@choiceC,@choiceD) end

GO
```

#### Uses

[dbo].[mcqQuestions]

### [dbo].[InsertIntoQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@q_id	int	4
@q_statement	varchar(150)	150
@q_modelAnswer	varchar(5)	5
@q_weight	int	4
@q_type	varchar(5)	5
@subj_id	int	4

#### **SQL Script**

```
-- stotored procedures to select, insert, update and delete into Questions table create proc [dbo].[InsertIntoQuestions] @q_id int, @q_statement varchar(150),@q_model-Answer varchar(5), @q_weight int,@q_type varchar(5),@subj_id int
As
begin
insert into Questions (q_id ,q_statement,q_modelAnswer,q_weight,q_type,subj_id) values
(@q_id, @q_statement,@q_modelAnswer,@q_weight,@q_type,@subj_id)
end

GO
```

#### Uses

[dbo].[Questions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Insert-IntoStudents

### [dbo].[InsertIntoStudents]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@st_id	int	4
@st_fname	varchar(10)	10
@st_lname	varchar(10)	10
@t_id	int	4

#### **SQL Script**

```
-- stotored procedures to select, insert, update and delete into Students table create proc [dbo].[InsertIntoStudents] @st_id int, @st_fname varchar(10),@st_lname varchar(10),@t_id int

As begin insert into Students(st_id ,st_fname,st_lname,t_id) values (@st_id,@st_fname,@st_lname,@t_id) end

--exec InsertIntoStudents 6,Lila,amar,3

GO
```

#### Uses

[dbo].[Students]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Insert-IntoTracks

[dbo].[InsertIntoTracks]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@t_id	int	4
@t_name	varchar(10)	10

#### **SQL Script**

```
-- stotored procedures to select, insert, update and delete into tracks table create proc [dbo].[InsertIntoTracks] @t_id int, @t_name varchar(10)

As begin insert into Tracks (t_id ,t_name) values (@t_id,@t_name) end

--exec InsertIntoTracks 4,SA

GO
```

#### Uses

[dbo].[Tracks]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.insert-Topic



#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@TopicName	varchar(10)	10
@subjld	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[insertTopic] @id INT, @TopicName VARCHAR(10), @subjId INT

AS

IF EXISTS(SELECT subj_id FROM dbo.Subjects WHERE subj_id=@subjId)

INSERT INTO dbo.Topics VALUES(@id,@TopicName,@subjId)

GO
```

#### Uses

[dbo].[Subjects] [dbo].[Topics]

# [dbo].[report6\_2\_proc]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE proc [dbo].[report6_2_proc] @stId int
as
select e_id
from Exams_Students
where st_id=@stId
GO
```

#### Uses

[dbo].[Exams\_Students]

## [dbo].[report6\_proc]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@stld	int	4
@eld	int	4

#### **SQL Script**

#### Uses

[dbo].[Exams\_Questions] [dbo].[Exams\_Students] [dbo].[Students] Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.select-E\_St

[dbo].[selectE\_St]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE PROC [dbo].[selectE_St] @eID INT

AS

SELECT *

FROM dbo.Exams_Students

WHERE e_id=@eID

GO
```

#### Uses

[dbo].[Exams\_Students]

# [dbo].[selectExam\_QuesTable]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE proc [dbo].[selectExam_QuesTable] @e_id int

As
begin
select q_id,q_ans
from Exams_Questions
where e_id=@e_id
end
GO
```

#### Uses

[dbo].[Exams\_Questions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.select-Exams

[dbo].[selectExams]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
CREATE PROC [dbo].[selectExams] @subjID INT

AS

SELECT *

FROM dbo.Exams

WHERE subj_id=@subjID

GO
```

#### Uses

[dbo].[Exams]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.select-

[dbo].[selectInstr]

#### **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].[selectInstr] @id INT
AS
SELECT *
FROM dbo.Instructors
WHERE instr_id=@id
GO
```

#### Uses

[dbo].[Instructors]

### [dbo].[SelectmcqQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
create proc [dbo].[SelectmcqQuestions] @q_id int
As
begin
select choiceA, choiceA, choiceC, choiceD
from mcqQuestions
where q_id =@q_id
end
GO
```

#### Uses

[dbo].[mcqQuestions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Select-Questions

[dbo].[SelectQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
create proc [dbo].[SelectQuestions] @q_id int
As
begin
select q_statement,q_modelAnswer,q_type,q_weight,subj_id
from Questions
where q_id =@q_id
end
GO
```

#### Uses

[dbo].[Questions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Select-Students

[dbo].[SelectStudents]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

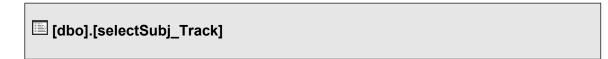
#### **SQL Script**

```
create proc [dbo].[SelectStudents] @st_id int
As
begin
select st_fname,st_lname,t_id
from Students
where st_id =@st_id
end
GO
```

#### Uses

[dbo].[Students]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.select-Subj\_Track



#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

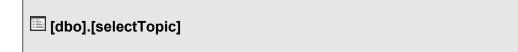
#### **SQL Script**

```
CREATE PROC [dbo].[selectSubj_Track] @tID INT
AS
SELECT *
FROM dbo.Subjects_tracks
WHERE t_id=@tID
GO
```

#### Uses

[dbo].[Subjects\_tracks]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.select-Topic



#### **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].[selectTopic] @id INT

AS

SELECT *

FROM dbo.Topics

WHERE top_id=@id

GO
```

#### Uses

[dbo].[Topics]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Select-Tracks

[dbo].[SelectTracks]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

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

#### **SQL Script**

```
create proc [dbo].[SelectTracks] @t_id int
As
begin
select t_name
from Tracks
where t_id =@t_id
end
GO
```

#### Uses

[dbo].[Tracks]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.update-E\_St

[dbo].[updateE\_St]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@e_ID	int	4
@sGrade	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[updateE_St] @e_ID INT, @sGrade INT

AS

UPDATE dbo.Exams_Students SET grade_percentage=@sGrade WHERE e_id=@e_ID

GO
```

#### Uses

[dbo].[Exams\_Students]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.update-lastr

[dbo].[updateInstr]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@instName	varchar(10)	10

#### **SQL Script**

```
CREATE PROC [dbo].[updateInstr] @id INT, @instName VARCHAR(10)

AS

UPDATE dbo.Instructors SET instr_name=@instName WHERE instr_id=@id

GO
```

#### Uses

[dbo].[Instructors]

# [dbo].[UpdatemcqQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@q_id	int	4
@choiceA	varchar(50)	50
@choiceB	varchar(50)	50
@choiceC	varchar(50)	50
@choiceD	varchar(50)	50

#### **SQL Script**

```
create proc [dbo].[UpdatemcqQuestions] @q_id int, @choiceA varchar(50),@choiceB
varchar(50),@choiceC varchar(50),@choiceD varchar(50)

As
begin
update mcqQuestions
set choiceA =@choiceA,
    choiceB =@choiceB,
    choiceC =@choiceC,
    choiceD =@choiceD
where q_id =@q_id
end
GO
```

#### Uses

[dbo].[mcqQuestions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Update-

### [dbo].[UpdateQuestions]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@q_id	int	4
@q_statement	varchar(150)	150
@q_modelAnswer	varchar(5)	5
@q_weight	int	4
@q_type	varchar(5)	5
@subj_id	int	4

#### **SQL Script**

```
create proc [dbo].[UpdateQuestions] @q_id int, @q_statement varchar(150),@q_modelAnswer
varchar(5)
,@q_weight int,@q_type varchar(5),@subj_id int
As
begin
update Questions
set q_statement=@q_statement,
    q_modelAnswer =@q_modelAnswer,
    q_type=@q_type,
    q_weight=@q_weight,
    subj_id=@subj_id
where q_id =@q_id
end
GO
```

#### Uses

[dbo].[Questions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Update-Studentds

### [dbo].[UpdateStudentds]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@st_id	int	4
@st_fname	varchar(10)	10
@st_Iname	varchar(10)	10
@t_id	int	4

#### **SQL Script**

```
--exec SelectStudents 6
create proc [dbo].[UpdateStudentds] @st_id int,@st_fname varchar(10),@st_lname
varchar(10), @t_id int

As
begin
update Students
set st_fname =@st_fname,
    st_lname =@st_lname,
    t_id =@t_id
where st_id =@st_id
end
GO
```

#### Uses

[dbo].[Students]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.update-Topic

## [dbo].[updateTopic]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@id	int	4
@TopicName	varchar(10)	10
@subjld	int	4

#### **SQL Script**

```
CREATE PROC [dbo].[updateTopic] @id INT, @TopicName VARCHAR(10), @subjId INT

AS

IF EXISTS(SELECT subj_id FROM dbo.Subjects WHERE subj_id=@subjId)

UPDATE dbo.Topics SET top_name=@TopicName, subj_id=@subjId WHERE top_id=@id

GO
```

#### Uses

[dbo].[Subjects] [dbo].[Topics] Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Stored Procedures > dbo.Update-Tracks

[dbo].[UpdateTracks]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@t_id	int	4
@t_name	varchar(10)	10

#### **SQL Script**

```
--exec SelectTracks 4
create proc [dbo].[UpdateTracks] @t_id int,@t_name varchar(10)
As
begin
update Tracks
set t_name =@t_name
where t_id =@t_id
end
GO
```

Uses

[dbo].[Tracks]

# [dbo].[UpdatExam\_QuesTable]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@e_id	int	4
@q_id	int	4
@q_ans	varchar(5)	5

#### **SQL Script**

#### Uses

[dbo].[Exams\_Questions]

Project > (local)\SQL2016 > User databases > ExamSystem > Programmability > Types > User-Defined Table Types

### " User-Defined Table Types

Objects

Name	
dbo.tableType	



#### **Properties**

Property	Value
Неар	True

#### Columns

Name	Data Type	Max Length (Bytes)	Nullability
e_id	int	4	NULL allowed
q_id	int	4	NULL allowed

#### **SQL Script**

```
CREATE TYPE [dbo].[tableType] AS TABLE

(
[e_id] [int] NULL,
[q_id] [int] NULL
)

GO
```

#### Used By

[dbo].[InsertExams\_QuestionsTable]

#### 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 public

#### **Properties**

Property	Value
Owner	dbo