DESKTOP-1K797I9\SQLSERVER2022 Documentation

Examination_Sys

Server	DESKTOP-1K797I9\SQLSERVER2022
Author	mariamandmarwa
Created	Tuesday, January 28, 2025 4:43:02 PM
File Path	C:\Users\برنت\Documents\My Database Documentation\DESKTOP-1K797I9_SQLSERVER2022_documentation-2025-01-28T16-43-02.pdf

Table of Contents

☰ *DESKTOP-1K797I9\SQLSERVER2022*

Databases (1)

- 🗄 Examination_Sys

Server Properties

Property	Value
Product	Microsoft SQL Server
Version	16.0.1135.2
Language	English (United States)
Platform	NT x64
Edition	Express Edition (64-bit)
Engine Edition	4 (Express)
Processors	8
OS Version	6.3 (22631)
Physical Memory	16111
Is Clustered	False
Root Directory	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL
Collation	Arabic_CI_AS

Server Settings

Property	Value
Default data file path	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\DATA\
Default backup file path	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\Backup
Default log file path	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\DATA\
Recovery Interval (minutes)	0
Default index fill factor	0
Default backup media retention	0

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	True
Blocked process threshold	0
Filestream access level	False
Optimize for ad hoc workloads	False
CLR strict security	False

📁 User databases

Databases (1)

- 🗄 Examination_Sys

▤ Examination_Sys Database

Database Properties

Property	Value
SQL Server Version	Max
Compatibility Level	Max
Last backup time	01/26/2025
Last log backup time	-
Creation date	Jan 28 2025
Users	4
Database Encryption Enabled	False
Database Encryption Algorithm	None
Database size	104.00 MB
Unallocated space	85.46 MB

Database Options

Property	Value
Compatibility Level	160
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	SIMPLE
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	9f15de0e-3ca6-4d1a-86cf-99375c8883ca
Service broker enabled	False
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-1K797I9\mariamandmarwa

Files

Name	Type	File Group	Size	Maxsize	Autogrowth	File Name
Examination_-Sys	Data		72.00 MB	unlimited	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\DATA\Examination_-Sys.mdf
Examination_-Sys_log	Log		8.00 MB	2048.00 GB	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\DATA\Examination_-

						Sys_log.ldf
File1	Data	FGroup1	8.00 MB	unlimited	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\DATA\File1.ndf
File2	Data	FGroup2	8.00 MB	unlimited	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\DATA\File2.ndf
File3	Data	FGroup3	8.00 MB	unlimited	64.00 MB	C:\Program Files\Microsoft SQL Server\MSSQL16.SQLSERVER2022\MSSQL\DATA\File3.ndf

⊞ *Tables*

Objects

Name
dbo.Branch
dbo.Course
dbo.Department
dbo.Exam
dbo.Instructor
dbo.Instructor_Course
dbo.Question
dbo.Question_Options
dbo.Student
dbo.Student_Answer
dbo.Student_Course
dbo.Topic
dbo.Track
dbo.Track_Department
dbo.Users

🔲 [dbo].[Branch]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	5
Created	8:06:22 PM Saturday, January 18, 2025
Last Modified	10:38:45 PM Friday, January 24, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	Branch_No	int	4	NOT NULL	1 - 1
	Branch_Name	varchar(255)	255	NOT NULL	
	Branch_Phone	varchar(11)	11	NULL allowed	
	Branch_City	varchar(255)	255	NOT NULL	
	Branch_Street	varchar(255)	255	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Branch	Branch_No	True

SQL Script

```
CREATE TABLE [dbo].[Branch]
(
[Branch_No] [int] NOT NULL IDENTITY(1, 1),
[Branch_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Branch_Phone] [varchar] (11) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Branch_City] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Branch_Street] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Branch] ADD CONSTRAINT [PK_Branch] PRIMARY KEY CLUSTERED ([Branch_No]) ON
[PRIMARY]
GO
```

Used By

[dbo].[Department]

🗔 [dbo].[Course]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	10
Created	8:06:53 PM Saturday, January 18, 2025
Last Modified	10:52:16 PM Friday, January 24, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	Course_Id	int	4	NOT NULL	1 - 1
	Course_Name	varchar(255)	255	NOT NULL	
	Course_Duration	varchar(50)	50	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Course	Course_Id	True

SQL Script

```
CREATE TABLE [dbo].[Course]
(
[Course_Id] [int] NOT NULL IDENTITY(1, 1),
[Course_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Course_Duration] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Course] ADD CONSTRAINT [PK_Course] PRIMARY KEY CLUSTERED ([Course_Id]) ON
[PRIMARY]
GO
```

Used By

[dbo].[Exam]
[dbo].[Instructor_Course]
[dbo].[Question]
[dbo].[Student_Course]

[dbo].[Topic]
[dbo].[GetInstructorCourses]
[dbo].[GetStudentCoursesAndExams]
[dbo].[GetStudentGrades]

🖼 [dbo].[Department]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	5
Created	8:07:41 PM Saturday, January 18, 2025
Last Modified	1:09:28 AM Saturday, January 25, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	Department_Id	int	4	NOT NULL	1 - 1
	Department_Name	varchar(255)	255	NOT NULL	
	Department_Desc	varchar(255)	255	NULL allowed	
FK	Branch_No	int	4	NOT NULL	
FK	Manager_Id	int	4	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Department	Department_Id	True

Foreign Keys

Name	Update	Delete	Columns
FK_Department_Branch	Cascade	Cascade	Branch_No->[dbo].[Branch].[Branch_No]
FK_Department_Instructor	Cascade	SetNull	Manager_Id->[dbo].[Instructor].[Instructor_Id]

SQL Script

```
CREATE TABLE [dbo].[Department]
(
[Department_Id] [int] NOT NULL IDENTITY(1, 1),
[Department_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Department_Desc] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Branch_No] [int] NOT NULL,
[Manager_Id] [int] NULL
```

```
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Department] ADD CONSTRAINT [PK_Department] PRIMARY KEY CLUSTERED
([Department_Id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Department] ADD CONSTRAINT [FK_Department_Branch] FOREIGN KEY ([Branch_No])
REFERENCES [dbo].[Branch] ([Branch_No]) ON DELETE CASCADE ON UPDATE CASCADE
GO
ALTER TABLE [dbo].[Department] ADD CONSTRAINT [FK_Department_Instructor] FOREIGN KEY ([Manager_-
Id]) REFERENCES [dbo].[Instructor] ([Instructor_Id]) ON DELETE SET NULL ON UPDATE CASCADE
GO
```

Uses

[dbo].[Branch]
[dbo].[Instructor]

Used By

[dbo].[Instructor]
[dbo].[Track_Department]
[dbo].[GetStudentsByDepartment]

🖼 [dbo].[Exam]

Properties

Property	Value
Row Count (~)	10
Created	8:08:21 PM Saturday, January 18, 2025
Last Modified	11:00:53 PM Friday, January 24, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	Exam_Id	int	4	NOT NULL	1 - 1
	Exam_StartTime	time(0)	3	NOT NULL	
	Exam_StartDate	date	3	NOT NULL	
	Exam_Duration	float	8	NOT NULL	
	Exam_TotalPoints	int	4	NOT NULL	
FK	Course_Id	int	4	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Exam	Exam_Id	True

Foreign Keys

Name	Update	Delete	Columns
FK_Exam_Course	Cascade	Cascade	Course_Id->[dbo].[Course].[Course_Id]

SQL Script

```
CREATE TABLE [dbo].[Exam]
(
[Exam_Id] [int] NOT NULL IDENTITY(1, 1),
[Exam_StartTime] [time] (0) NOT NULL,
[Exam_StartDate] [date] NOT NULL,
[Exam_Duration] [float] NOT NULL,
[Exam_TotalPoints] [int] NOT NULL,
[Course_Id] [int] NULL
) ON [PRIMARY]
```

```
GO
ALTER TABLE [dbo].[Exam] ADD CONSTRAINT [PK_Exam] PRIMARY KEY CLUSTERED ([Exam_Id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Exam] ADD CONSTRAINT [FK_Exam_Course] FOREIGN KEY ([Course_Id]) REFERENCES
[dbo].[Course] ([Course_Id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Course]

Used By

[dbo].[Student_Answer]
[dbo].[GetStudentCoursesAndExams]

🔲 [dbo].[Instructor]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	24
Created	1:09:27 AM Saturday, January 25, 2025
Last Modified	12:55:15 AM Sunday, January 26, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	Instructor_Id	int	4	NOT NULL	1 - 1
	Instructor_Name	varchar(255)	255	NOT NULL	
	Instructor_Phone	varchar(11)	11	NULL allowed	
	Instructor_City	varchar(255)	255	NOT NULL	
	Instructor_Street	varchar(255)	255	NOT NULL	
	Instructor_DOB	date	3	NOT NULL	
	Instructor_Gender	varchar(10)	10	NOT NULL	
	Instructor_Degree	varchar(255)	255	NOT NULL	
	Instructor_Salary	money	8	NOT NULL	
FK	Instructor_Email	varchar(50)	50	NOT NULL	
FK	Department_Id	int	4	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Instructor	Instructor_Id	True
	Instructor_Email	Instructor_Email	True

Triggers

Name	ANSI Nulls On	Quoted Identifier On	On
trg_InstructorInsert	True	True	After Insert Update

Foreign Keys

Name	Update	Delete	Columns
FK_Instructor_Department			Department_Id->[dbo].[Department].[Department_Id]
FK_Instructor_Users1	Cascade	Cascade	Instructor_Email->[dbo].[Users].[Email]

SQL Script

```
CREATE TABLE [dbo].[Instructor]
(
[Instructor_Id] [int] NOT NULL IDENTITY(1, 1),
[Instructor_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Instructor_Phone] [varchar] (11) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Instructor_City] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Instructor_Street] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Instructor_DOB] [date] NOT NULL,
[Instructor_Gender] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Instructor_Degree] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Instructor_Salary] [money] NOT NULL,
[Instructor_Email] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Department_Id] [int] NOT NULL
) ON [PRIMARY]
GO
create trigger [dbo].[trg_InstructorInsert]
on [dbo].[Instructor]
After Insert, Update
As
Begin
    declare @Email varchar(50)
    declare @InstructorId int
    select @Email = Instructor_Email from inserted
    select @InstructorId = Instructor_Id from inserted

    EXEC UpdateUser @Email, @InstructorId
End;
GO
ALTER TABLE [dbo].[Instructor] ADD CONSTRAINT [PK_Instructor] PRIMARY KEY CLUSTERED
([Instructor_Id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Instructor] ADD CONSTRAINT [Instructor_Email] UNIQUE NONCLUSTERED
([Instructor_Email]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Instructor] ADD CONSTRAINT [FK_Instructor_Department] FOREIGN KEY
([Department_Id]) REFERENCES [dbo].[Department] ([Department_Id])
GO
ALTER TABLE [dbo].[Instructor] ADD CONSTRAINT [FK_Instructor_Users1] FOREIGN KEY ([Instructor_-
Email]) REFERENCES [dbo].[Users] ([Email]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Department]
[dbo].[Users]

Used By

[dbo].[Department]
[dbo].[Instructor_Course]

🗔 [dbo].[Instructor_Course]

Properties

Property	Value
Row Count (~)	23
Created	4:09:22 PM Tuesday, January 14, 2025
Last Modified	1:09:28 AM Saturday, January 25, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK FK	Instructor_Id	int	4	NOT NULL
PK FK	Course_Id	int	4	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK	PK_Instructor_Course	Instructor_Id, Course_Id	True

Foreign Keys

Name	Update	Delete	Columns
FK_Instructor_Course_Course	Cascade	Cascade	Course_Id->[dbo].[Course].[Course_Id]
FK_Instructor_Course_Instructor	Cascade	Cascade	Instructor_Id->[dbo].[Instructor].[Instructor_Id]

SQL Script

```
CREATE TABLE [dbo].[Instructor_Course]
(
[Instructor_Id] [int] NOT NULL,
[Course_Id] [int] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Instructor_Course] ADD CONSTRAINT [PK_Instructor_Course] PRIMARY KEY CLUSTERED
([Instructor_Id], [Course_Id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Instructor_Course] ADD CONSTRAINT [FK_Instructor_Course_Course] FOREIGN KEY
([Course_Id]) REFERENCES [dbo].[Course] ([Course_Id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
ALTER TABLE [dbo].[Instructor_Course] ADD CONSTRAINT [FK_Instructor_Course_Instructor] FOREIGN
KEY ([Instructor_Id]) REFERENCES [dbo].[Instructor] ([Instructor_Id]) ON DELETE CASCADE ON UPDATE
```

```
CASCADE
GO
```

Uses

[dbo].[Course]
[dbo].[Instructor]

Used By

[dbo].[GetInstructorCourses]

🪟 [dbo].[Question]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	174
Created	2:16:25 PM Thursday, January 16, 2025
Last Modified	10:55:38 PM Friday, January 24, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK C	Question_Id	int	4	NOT NULL
	Question_Head	varchar(255)	255	NOT NULL
	Question_Type	varchar(50)	50	NOT NULL
	Question_Answer	varchar(255)	255	NOT NULL
	Question_Points	int	4	NOT NULL
FK	Course_Id	int	4	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Question	Question_Id	True

Foreign Keys

Name	Delete	Columns
FK_Question_Course	Cascade	Course_Id->[dbo].[Course].[Course_Id]

SQL Script

```
CREATE TABLE [dbo].[Question]
(
[Question_Id] [int] NOT NULL,
[Question_Head] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Question_Type] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Question_Answer] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Question_Points] [int] NOT NULL,
[Course_Id] [int] NOT NULL
```

```
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Question] ADD CONSTRAINT [PK_Question] PRIMARY KEY CLUSTERED ([Question_Id])
ON [PRIMARY]
GO
ALTER TABLE [dbo].[Question] ADD CONSTRAINT [FK_Question_Course] FOREIGN KEY ([Course_Id])
REFERENCES [dbo].[Course] ([Course_Id]) ON DELETE CASCADE
GO
```

Uses

[dbo].[Course]

Used By

[dbo].[Question_Options]

[dbo].[Student_Answer]

[dbo].[CorrectExam]

[dbo].[GenerateExam]

[dbo].[GenerateExamThenInsertIt]

[dbo].[GenerateRandomExam]

[dbo].[GetExamQuestionsWithAnswers]

[dbo].[GetExamQuestionsWithChoices_updated]

🖼️ [dbo].[Question_Options]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	212
Created	2:15:45 PM Thursday, January 16, 2025
Last Modified	8:49:11 PM Friday, January 24, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK FK	Question_Id	int	4	NOT NULL
PK	Question_Option	varchar(255)	255	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK	PK_Question_Options	Question_Id, Question_Option	True

Foreign Keys

Name	Update	Delete	Columns
FK_Question_Options_Question	Cascade	Cascade	Question_Id->[dbo].[Question].[Question_Id]

SQL Script

```
CREATE TABLE [dbo].[Question_Options]
(
[Question_Id] [int] NOT NULL,
[Question_Option] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Question_Options] ADD CONSTRAINT [PK_Question_Options] PRIMARY KEY CLUSTERED
([Question_Id], [Question_Option]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Question_Options] ADD CONSTRAINT [FK_Question_Options_Question] FOREIGN KEY
([Question_Id]) REFERENCES [dbo].[Question] ([Question_Id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Question]

Used By

[dbo].[GetExamQuestionsWithChoices_updated]

🖼 [dbo].[Student]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	27
Created	1:09:02 AM Saturday, January 25, 2025
Last Modified	12:51:58 AM Sunday, January 26, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK C	Student_Id	int	4	NOT NULL
	Student_Name	varchar(255)	255	NOT NULL
	Student_Phone	varchar(11)	11	NULL allowed
	Student_City	varchar(255)	255	NOT NULL
	Student_Street	varchar(255)	255	NOT NULL
	Student_DOB	date	3	NOT NULL
FK	Student_Email	varchar(50)	50	NOT NULL
	Student_Gender	varchar(10)	10	NOT NULL
FK	Track_Id	int	4	NULL allowed

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Student	Student_Id	True
	Student_Email	Student_Email	True

Foreign Keys

Name	Update	Delete	Columns
FK_Student_Track			Track_Id->[dbo].[Track].[Track_Id]
FK_Student_Users	Cascade	Cascade	Student_Email->[dbo].[Users].[Email]

SQL Script

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

```
(
[Student_Id] [int] NOT NULL,
[Student_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Student_Phone] [varchar] (11) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[Student_City] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Student_Street] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Student_DOB] [date] NOT NULL,
[Student_Email] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Student_Gender] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Track_Id] [int] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Student] ADD CONSTRAINT [PK_Student] PRIMARY KEY CLUSTERED ([Student_Id]) ON
[PRIMARY]
GO
ALTER TABLE [dbo].[Student] ADD CONSTRAINT [Student_Email] UNIQUE NONCLUSTERED ([Student_Email])
ON [PRIMARY]
GO
ALTER TABLE [dbo].[Student] ADD CONSTRAINT [FK_Student_Track] FOREIGN KEY ([Track_Id]) REFERENCES
[dbo].[Track] ([Track_Id])
GO
ALTER TABLE [dbo].[Student] ADD CONSTRAINT [FK_Student_Users] FOREIGN KEY ([Student_Email])
REFERENCES [dbo].[Users] ([Email]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Track]
[dbo].[Users]

Used By

[dbo].[Student_Answer]
[dbo].[Student_Course]
[dbo].[DeleteStudent]
[dbo].[GetStudentCoursesAndExams]
[dbo].[GetStudentsByDepartment]
[dbo].[InsertStudent]
[dbo].[SelectStudent]
[dbo].[UpdateStudent]

⊞ [dbo].[Student_Answer]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	2:19:41 PM Thursday, January 16, 2025
Last Modified	1:09:03 AM Saturday, January 25, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK FK C	Student_Id	int	4	NOT NULL
PK FK C	Exam_Id	int	4	NOT NULL
PK FK C	Question_Id	int	4	NOT NULL
	Student_Ans	varchar(255)	255	NULL allowed
	Student_Que_Grade	int	4	NULL allowed

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Sudent_Answer	Student_Id, Exam_Id, Question_Id	True

Foreign Keys

Name	Update	Delete	Columns
FK_Sudent_Answer_Exam			Exam_Id->[dbo].[Exam].[Exam_Id]
FK_Sudent_Answer_Question			Question_Id->[dbo].[Question].[Question_Id]
FK_Sudent_Answer_Student	Cascade	Cascade	Student_Id->[dbo].[Student].[Student_Id]

SQL Script

```
CREATE TABLE [dbo].[Student_Answer]
(
[Student_Id] [int] NOT NULL,
[Exam_Id] [int] NOT NULL,
[Question_Id] [int] NOT NULL,
[Student_Ans] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
```

```
[Student_Que_Grade] [int] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Student_Answer] ADD CONSTRAINT [PK_Sudent_Answer] PRIMARY KEY CLUSTERED
([Student_Id], [Exam_Id], [Question_Id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Student_Answer] ADD CONSTRAINT [FK_Sudent_Answer_Exam] FOREIGN KEY ([Exam_Id])
REFERENCES [dbo].[Exam] ([Exam_Id])
GO
ALTER TABLE [dbo].[Student_Answer] ADD CONSTRAINT [FK_Sudent_Answer_Question] FOREIGN KEY
([Question_Id]) REFERENCES [dbo].[Question] ([Question_Id])
GO
ALTER TABLE [dbo].[Student_Answer] ADD CONSTRAINT [FK_Sudent_Answer_Student] FOREIGN KEY
([Student_Id]) REFERENCES [dbo].[Student] ([Student_Id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Exam]
[dbo].[Question]
[dbo].[Student]

Used By

[dbo].[CorrectExam]
[dbo].[GenerateExamThenInsertIt]
[dbo].[GetExamQuestionsWithAnswers]
[dbo].[GetExamQuestionsWithChoices_updated]
[dbo].[InsertStudentAnswer]
[dbo].[SetStudentAnswer]

▦ [dbo].[Student_Course]

Properties

Property	Value
Row Count (~)	74
Created	4:09:22 PM Tuesday, January 14, 2025
Last Modified	1:09:03 AM Saturday, January 25, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK FK	Course_Id	int	4	NOT NULL
PK FK	Student_Id	int	4	NOT NULL
	Student_Course_Grade	int	4	NULL allowed

Indexes

Key	Name	Key Columns	Unique
PK	PK_Student_Course	Course_Id, Student_Id	True

Foreign Keys

Name	Update	Delete	Columns
FK_Student_Course_Course	Cascade	Cascade	Course_Id->[dbo].[Course].[Course_Id]
FK_Student_Course_Student	Cascade	Cascade	Student_Id->[dbo].[Student].[Student_Id]

SQL Script

```
CREATE TABLE [dbo].[Student_Course]
(
[Course_Id] [int] NOT NULL,
[Student_Id] [int] NOT NULL,
[Student_Course_Grade] [int] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Student_Course] ADD CONSTRAINT [PK_Student_Course] PRIMARY KEY CLUSTERED
([Course_Id], [Student_Id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Student_Course] ADD CONSTRAINT [FK_Student_Course_Course] FOREIGN KEY
([Course_Id]) REFERENCES [dbo].[Course] ([Course_Id]) ON DELETE CASCADE ON UPDATE CASCADE
```

```
GO
ALTER TABLE [dbo].[Student_Course] ADD CONSTRAINT [FK_Student_Course_Student] FOREIGN KEY
([Student_Id]) REFERENCES [dbo].[Student] ([Student_Id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Course]
[dbo].[Student]

Used By

[dbo].[GetInstructorCourses]
[dbo].[GetStudentCoursesAndExams]
[dbo].[GetStudentGrades]

🖾 [dbo].[Topic]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	50
Created	2:19:54 PM Thursday, January 16, 2025
Last Modified	8:20:40 PM Friday, January 24, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK FK	Course_Id	int	4	NOT NULL
PK	Topic_Name	varchar(255)	255	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK	PK_Topic_1	Course_Id, Topic_Name	True

Foreign Keys

Name	Update	Delete	Columns
FK_Topic_Course	Cascade	Cascade	Course_Id->[dbo].[Course].[Course_Id]

SQL Script

```
CREATE TABLE [dbo].[Topic]
(
[Course_Id] [int] NOT NULL,
[Topic_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Topic] ADD CONSTRAINT [PK_Topic_1] PRIMARY KEY CLUSTERED ([Course_Id],
[Topic_Name]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Topic] ADD CONSTRAINT [FK_Topic_Course] FOREIGN KEY ([Course_Id]) REFERENCES
[dbo].[Course] ([Course_Id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Course]

Used By

[dbo].[GetCourseTopics]

🖽 [dbo].[Track]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	15
Created	2:20:10 PM Thursday, January 16, 2025
Last Modified	1:09:03 AM Saturday, January 25, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK C	Track_Id	int	4	NOT NULL
	Track_Name	varchar(255)	255	NOT NULL
	Track_Desc	varchar(255)	255	NULL allowed

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Track	Track_Id	True

SQL Script

```
CREATE TABLE [dbo].[Track]
(
[Track_Id] [int] NOT NULL,
[Track_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Track_Desc] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Track] ADD CONSTRAINT [PK_Track] PRIMARY KEY CLUSTERED ([Track_Id]) ON
[PRIMARY]
GO
```

Used By

[dbo].[Student]
[dbo].[Track_Department]
[dbo].[GetStudentsByDepartment]

▦ [dbo].[Track_Department]

Properties

Property	Value
Row Count (~)	15
Created	4:09:22 PM Tuesday, January 14, 2025
Last Modified	10:36:14 PM Friday, January 24, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK FK	Track_Id	int	4	NOT NULL
PK FK	Department_Id	int	4	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK	PK_Track_Department	Track_Id, Department_Id	True

Foreign Keys

Name	Update	Delete	Columns
FK_Track_Department_Department	Cascade	Cascade	Department_Id->[dbo].[Department].[Department_Id]
FK_Track_Department_Track	Cascade	Cascade	Track_Id->[dbo].[Track].[Track_Id]

SQL Script

```
CREATE TABLE [dbo].[Track_Department]
(
[Track_Id] [int] NOT NULL,
[Department_Id] [int] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Track_Department] ADD CONSTRAINT [PK_Track_Department] PRIMARY KEY CLUSTERED
([Track_Id], [Department_Id]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Track_Department] ADD CONSTRAINT [FK_Track_Department_Department] FOREIGN KEY
([Department_Id]) REFERENCES [dbo].[Department] ([Department_Id]) ON DELETE CASCADE ON UPDATE
CASCADE
GO
ALTER TABLE [dbo].[Track_Department] ADD CONSTRAINT [FK_Track_Department_Track] FOREIGN KEY
```

```
([Track_Id]) REFERENCES [dbo].[Track] ([Track_Id]) ON DELETE CASCADE ON UPDATE CASCADE
GO
```

Uses

[dbo].[Department]
[dbo].[Track]

Used By

[dbo].[GetStudentsByDepartment]

🔲 [dbo].[Users]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	54
Created	8:36:02 PM Saturday, January 25, 2025
Last Modified	12:55:15 AM Sunday, January 26, 2025

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	User_Name	varchar(255)	255	NOT NULL
PK	Password	varchar(50)	50	NOT NULL
	User_Type	varchar(50)	50	NOT NULL
PK	Email	varchar(50)	50	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK	PK_Users	User_Name, Password, Email	True
	User_Email	Email	True

SQL Script

```
CREATE TABLE [dbo].[Users]
(
[User_Name] [varchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Password] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[User_Type] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL,
[Email] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Users] ADD CONSTRAINT [PK_Users] PRIMARY KEY CLUSTERED ([User_Name],
[Password], [Email]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Users] ADD CONSTRAINT [User_Email] UNIQUE NONCLUSTERED ([Email]) ON [PRIMARY]
GO
```

Used By

[dbo].[Instructor]

[dbo].[Student]

[dbo].[DeleteUser]

[dbo].[InsertUser]

[dbo].[UpdateUser]

📄 *Stored Procedures*

Objects

Name
dbo.CorrectExam
dbo.DeleteStudent
dbo.DeleteUser
dbo.GenerateExam
dbo.GenerateExamThenInsertIt
dbo.GenerateRandomExam
dbo.GetCourseTopics
dbo.GetExamQuestionsWithAnswers
dbo.GetExamQuestionsWithChoices_updated
dbo.GetInstructorCourses
dbo.GetStudentCoursesAndExams
dbo.GetStudentGrades
dbo.GetStudentsByDepartment
dbo.InsertStudent
dbo.InsertStudentAnswer
dbo.InsertUser
dbo.SelectData
dbo.SelectStudent
dbo.SetStudentAnswer
dbo.UpdateStudent
dbo.UpdateUser

📄 [dbo].[CorrectExam]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Student_Id	int	4
@Exam_Id	int	4
@Answers	AnswerTable	max

SQL Script

```sql
CREATE PROCEDURE [dbo].[CorrectExam]
    @Student_Id INT,
    @Exam_Id INT,
    @Answers AnswerTable READONLY -- Table parameter for the answers
AS
BEGIN
    -- Loop through each student's answer and update the Student_Answer table
    UPDATE SA
    SET SA.Student_Ans = A.Student_Ans ,SA.Student_Que_Grade = CASE
                            WHEN A.Student_Ans = Q.Question_Answer THEN Q.Question_Points
                            ELSE 0
                         END
    FROM Student_Answer SA
    INNER JOIN Question Q ON SA.Question_Id = Q.Question_Id
    INNER JOIN @Answers A ON A.Question_Id = SA.Question_Id
    WHERE SA.Student_Id = @Student_Id AND SA.Exam_Id = @Exam_Id;

    -- Optionally, calculate and return the total grade for reference
    SELECT SUM(Student_Que_Grade) AS TotalGrade
    FROM Student_Answer
    WHERE Student_Id = @Student_Id AND Exam_Id = @Exam_Id;
END;
GO
```

Uses

[dbo].[Question]

[dbo].[Student_Answer]

[dbo].[AnswerTable]

📄 [dbo].[DeleteStudent]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```sql
CREATE PROCEDURE [dbo].[DeleteStudent]
    @Student_Id INT
AS
BEGIN
    DELETE FROM Student WHERE Student_Id = @Student_Id
END
GO
```

Uses

[dbo].[Student]

📄 [dbo].[DeleteUser]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Email	varchar(50)	50
@User_Id	int	4

SQL Script

```
Create Proc [dbo].[DeleteUser] @Email      varchar(50),
                    @User_Id  int
As
Begin
    Delete from Users
    where Users.Email = @Email
End
GO
```

Uses

[dbo].[Users]

📄 [dbo].[GenerateExam]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Course_Id	int	4
@Num_Questions	int	4

SQL Script

```sql
--Stored Procedure for Exam Generation
CREATE PROCEDURE [dbo].[GenerateExam]
    @Course_Id INT,
    @Num_Questions INT
AS
BEGIN
    SELECT TOP (@Num_Questions) *
    FROM Question
    WHERE Course_Id = @Course_Id
    ORDER BY NEWID()
END
GO
```

Uses

[dbo].[Question]

🖼 [dbo].[GenerateExamThenInsertIt]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Course_Id	int	4
@Student_Id	int	4
@Exam_Id	int	4

SQL Script

```sql
CREATE PROCEDURE [dbo].[GenerateExamThenInsertIt]
    @Course_Id INT,
    @Student_Id INT,
    @Exam_Id INT
AS
BEGIN
    -- Declare a temporary table to hold the random selected questions
    DECLARE @SelectedQuestions TABLE (Question_Id INT, Question_Head varchar(255), Question_Type
varchar(50));--, Question_Answer varchar(255), Question_Points INT, Course_Id INT);

    -- Insert the random selected questions into the temporary table
    INSERT INTO @SelectedQuestions
    --SELECT TOP 10 Question_Id , Question_Head, Question_Type
    --FROM Question
    --WHERE Course_Id = @Course_Id
    --ORDER BY NEWID();
    SELECT *
    FROM (
        SELECT TOP 5 Question_Id , Question_Head, Question_Type
        FROM Question q
        WHERE q.Course_Id = @Course_Id AND q.Question_Type = 'true / false'
        ORDER BY NEWID()
        ) AS TFQuestions

    UNION ALL
    SELECT *
    FROM (
```

```sql
        SELECT TOP 5 Question_Id , Question_Head, Question_Type
        FROM Question q
        WHERE q.Course_Id = @Course_Id AND q.Question_Type = 'mcq'
        ORDER BY NEWID()
        ) AS MCQQuestions;

    select * from @SelectedQuestions

    -- Insert the student answers into the Student_Answer table
    INSERT INTO [dbo].[Student_Answer]
        ([Student_Id], [Exam_Id], [Question_Id])
    SELECT
        @Student_Id,
        @Exam_Id,
        Question_Id
    FROM @SelectedQuestions;
END
GO
```

Uses

[dbo].[Question]
[dbo].[Student_Answer]

🗒 [dbo].[GenerateRandomExam]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```sql
CREATE PROCEDURE [dbo].[GenerateRandomExam]
    @Course_Id INT
AS
BEGIN
SELECT *
    FROM (
        SELECT TOP 5 *
        FROM Question q
        WHERE q.Course_Id = @Course_Id AND q.Question_Type = 'true / false'
        ORDER BY NEWID()
        ) AS TFQuestions

    UNION ALL
    SELECT *
    FROM (
        SELECT TOP 5 *
        FROM Question q
        WHERE q.Course_Id = @Course_Id AND q.Question_Type = 'mcq'
        ORDER BY NEWID()
        ) AS MCQQuestions;
END;

GO
```

Uses

[dbo].[Question]

📄 [dbo].[GetCourseTopics]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```
CREATE PROCEDURE [dbo].[GetCourseTopics] (
    @CourseId INT
)
AS
BEGIN
    SELECT Topic_Name
    FROM Topic
    WHERE Course_Id = @CourseId;
END;
GO
```

Uses

[dbo].[Topic]

🖼 [dbo].[GetExamQuestionsWithAnswers]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```
create PROCEDURE [dbo].[GetExamQuestionsWithAnswers] (
    @ExamId INT,
    @StudentId INT
)
AS
BEGIN
    SELECT DISTINCT --q.Question_Id,
                    q.Question_Head,
                    q.Question_Answer AS Model_Answer,
                    ISNULL(sa.Student_Ans, '-') AS Student_Answer
    FROM Student_Answer sa
    JOIN Question q
        ON sa.Question_Id = q.Question_Id
    WHERE sa.Exam_Id = @ExamId
      AND sa.Student_Id = @StudentId;
END;
GO
```

Uses

[dbo].[Question]
[dbo].[Student_Answer]

🗒 [dbo].[GetExamQuestionsWithChoices_updated]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```sql
create PROCEDURE [dbo].[GetExamQuestionsWithChoices_updated]
    @ExamId INT
AS
BEGIN
    SELECT
        q.Question_Head,
        ISNULL(STRING_AGG(qo.Question_Option, ', '), 'T/F') AS Question_Options
    FROM Question q
    JOIN (
        SELECT DISTINCT sa.Question_Id
        FROM Student_Answer sa
        WHERE sa.Exam_Id = @ExamId
    ) sa_filtered
        ON sa_filtered.Question_Id = q.Question_Id
    LEFT JOIN Question_Options qo
        ON q.Question_Id = qo.Question_Id
    GROUP BY q.Question_Head;
END;
GO
```

Uses

[dbo].[Question]
[dbo].[Question_Options]
[dbo].[Student_Answer]

🗎 [dbo].[GetInstructorCourses]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```sql
create PROCEDURE [dbo].[GetInstructorCourses](
    @instructor_id INT
)
AS
BEGIN
    SELECT
        --instructor_name,
        c.Course_Name,
        COUNT(sc.student_id) AS number_of_students
    FROM course c
    JOIN Instructor_Course ic
        ON c.course_id = ic.course_id

    LEFT JOIN Student_Course sc
        ON sc.course_id = c.course_id


    WHERE ic.instructor_id = @instructor_id -- Fixed reference here
    GROUP BY c.Course_Name; -- Fixed GROUP BY clause
END;

GO
```

Uses

[dbo].[Course]
[dbo].[Instructor_Course]

[dbo].[Student_Course]

📄 [dbo].[GetStudentCoursesAndExams]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```sql
CREATE PROCEDURE [dbo].[GetStudentCoursesAndExams]
    @StudentId INT
AS
BEGIN
    SET NOCOUNT ON;

    SELECT
        c.Course_Name,
        e.*
    FROM
        Student s
    JOIN
        Student_Course sc ON s.Student_Id = sc.Student_Id
    JOIN
        Course c ON c.Course_Id = sc.Course_Id
    JOIN
        Exam e ON e.Course_Id = c.Course_Id
    WHERE
        s.Student_Id = @StudentId;
END;
GO
```

Uses

[dbo].[Course]
[dbo].[Exam]
[dbo].[Student]
[dbo].[Student_Course]

📄 [dbo].[GetStudentGrades]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```
CREATE PROCEDURE [dbo].[GetStudentGrades] (
    @StudentId INT
)
AS
BEGIN
    SELECT c.Course_Name,
    sc.Student_Course_Grade

    FROM Student_Course sc
    JOIN Course c
    ON sc.Course_Id = c.Course_Id

    WHERE sc.Student_Id = @StudentId
END;
GO
```

Uses

[dbo].[Course]
[dbo].[Student_Course]

📄 [dbo].[GetStudentsByDepartment]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

SQL Script

```
--•1    Report that returns the students information according to Department No parameter.
CREATE PROCEDURE [dbo].[GetStudentsByDepartment]
    @Department_Id INT
AS
BEGIN
    SELECT
        --s.student_id,
        s.Student_Name,
        s.Student_Phone,
        s.Student_Email,
        d.Department_Name,
        t.Track_Name

    FROM student s
    JOIN track t ON s.track_id = t.track_id
    JOIN Track_Department td ON t.track_id = td.track_id
    JOIN department d ON td.department_id = d.department_id
    WHERE d.department_id = @Department_Id;
END;
GO
```

Uses

[dbo].[Department]
[dbo].[Student]
[dbo].[Track]
[dbo].[Track_Department]

🖹 [dbo].[InsertStudent]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Student_Name	nvarchar(50)	100
@Student_Phone	nvarchar(15)	30
@Student_City	nvarchar(50)	100
@Student_Street	nvarchar(50)	100
@Student_DOB	date	3
@Student_Email	nvarchar(50)	100
@Student_Gender	nvarchar(10)	20
@Track_Id	int	4

SQL Script

```
CREATE PROCEDURE [dbo].[InsertStudent]
    @Student_Name NVARCHAR(50),
    @Student_Phone NVARCHAR(15),
    @Student_City NVARCHAR(50),
    @Student_Street NVARCHAR(50),
    @Student_DOB DATE,
    @Student_Email NVARCHAR(50),
    @Student_Gender NVARCHAR(10),
    @Track_Id INT
AS
BEGIN
    INSERT INTO Student (Student_Name, Student_Phone, Student_City, Student_Street, Student_DOB,
Student_Email, Student_Gender, Track_Id)
    VALUES (@Student_Name, @Student_Phone, @Student_City, @Student_Street, @Student_DOB,
@Student_Email, @Student_Gender, @Track_Id)
END
GO
```

Uses

[dbo].[Student]

📄 [dbo].[InsertStudentAnswer]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Student_Id	int	4
@Exam_Id	int	4
@Question_Id	int	4
@Student_Ans	nvarchar(max)	max

SQL Script

```sql
CREATE PROCEDURE [dbo].[InsertStudentAnswer]
    @Student_Id INT,
    @Exam_Id INT,
    @Question_Id INT,
    @Student_Ans NVARCHAR(MAX)
AS
BEGIN
    INSERT INTO Student_Answer (Student_Id, Exam_Id, Question_Id, Student_Ans)
    VALUES (@Student_Id, @Exam_Id, @Question_Id, @Student_Ans)
END
GO
```

Uses

[dbo].[Student_Answer]

📰 [dbo].[InsertUser]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserName	varchar(255)	255
@Password	varchar(50)	50
@UserType	varchar(50)	50
@Email	varchar(50)	50

SQL Script

```
Create Proc [dbo].[InsertUser] @UserName varchar(255),
                        @Password varchar(50),
                        @UserType varchar(50),
                        @Email      varchar(50)
As
Begin
    Insert into Users (User_Name, Password, User_Type, Email)
    Values (@UserName, @Password, @UserType, @Email)
End;
GO
```

Uses

[dbo].[Users]

📄 [dbo].[SelectData]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@TableName	nvarchar(max)	max

SQL Script

```
CREATE PROCEDURE [dbo].[SelectData]
    @TableName NVARCHAR(MAX)
AS
BEGIN
    DECLARE @sql NVARCHAR(MAX)
    SET @sql = 'SELECT * FROM ' + @TableName
    EXEC sp_executesql @sql
END
GO
```

📄 [dbo].[SelectStudent]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

SQL Script

```sql
CREATE PROCEDURE [dbo].[SelectStudent]
AS
BEGIN
    SELECT * FROM Student;
END;
GO
```

Uses

[dbo].[Student]

🔳 [dbo].[SetStudentAnswer]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@StuId	int	4
@ExamId	int	4
@QuestionId	int	4
@StudentAns	varchar(255)	255
@StudentQueGrade	int	4

SQL Script

```sql
CREATE PROC [dbo].[SetStudentAnswer]
    @StuId INT,
    @ExamId INT,
    @QuestionId INT,
    @StudentAns VARCHAR(255),
    @StudentQueGrade INT
AS
BEGIN
    INSERT INTO [dbo].[Student_Answer]
            ([Student_Id]
            ,[Exam_Id]
            ,[Question_Id]
            ,[Student_Ans]
            ,[Student_Que_Grade])
    VALUES
        (@StuId
        ,@ExamId
        ,@QuestionId
        ,@StudentAns
        ,@StudentQueGrade);
END
GO
```

Uses

[dbo].[Student_Answer]

🖼 [dbo].[UpdateStudent]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Student_Id	int	4
@Student_Name	nvarchar(50)	100
@Student_Phone	nvarchar(15)	30

SQL Script

```
CREATE PROCEDURE [dbo].[UpdateStudent]
    @Student_Id INT,
    @Student_Name NVARCHAR(50),
    @Student_Phone NVARCHAR(15)
AS
BEGIN
    UPDATE Student
    SET Student_Name = @Student_Name, Student_Phone = @Student_Phone
    WHERE Student_Id = @Student_Id
END
GO
```

Uses

[dbo].[Student]

🗎 [dbo].[UpdateUser]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Email	varchar(50)	50
@User_Id	int	4

SQL Script

```
Create Proc [dbo].[UpdateUser] @Email      varchar(50),
                     @User_Id  int
As
Begin
    Update Users
    Set Users.User_Id = @User_Id
    where Users.Email = @Email
End
GO
```

Uses

[dbo].[Users]

▣ *User-Defined Table Types*

Objects

Name
dbo.AnswerTable

🖳 [dbo].[AnswerTable]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Heap	True

Columns

Name	Data Type	Max Length (Bytes)	Nullability
Question_Id	int	4	NULL allowed
Student_Ans	nvarchar(max)	max	NULL allowed

SQL Script

```
CREATE TYPE [dbo].[AnswerTable] AS TABLE
(
[Question_Id] [int] NULL,
[Student_Ans] [nvarchar] (max) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
)
GO
```

Used By

[dbo].[CorrectExam]

👤 *Users*

Objects

Name
dbo
guest

👤 dbo

Properties

Property	Value
Type	SqlUser
Login Name	sa
Default Schema	dbo

Database Level Permissions

Type	Action
CONNECT	Grant

SQL Script

```
GO
```

👤 guest

Properties

Property	Value
Type	SqlUser
Default Schema	guest

SQL Script

```
GO
```

👥 *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