

Generated using SQL Data Dictionary demo version.

ExaminationOnlineSystemDb

Tables:

dbo.ansewrsOfTheQuestion (30 rows)	1
<i>The answers of the questions that the student had answered in his exam</i>	
dbo.Course (2 rows)	1
<i>The courses that we have in organization</i>	
dbo.Department (4 rows)	2
<i>The departments of the organization</i>	
dbo.Exam (3 rows)	3
<i>The exams generated for the students</i>	
dbo.examQuestions (30 rows)	3
<i>The relationship between the exam and the question</i>	
dbo.Instructor (2 rows)	4
<i>The table of the instructors in the organization</i>	
dbo.instructorTeachesCourse (2 rows)	5
<i>The table of the instructors and their courses they teach (M:M Relationship)</i>	
dbo.Question (40 rows)	5
<i>The questions of the courses which will be included in the exams</i>	
dbo.questionChoices (120 rows)	6
<i>The choices of the question</i>	
dbo.Student (5 rows)	7
<i>Student data</i>	
dbo.studentEnrollsInCourse (5 rows)	7
<i>Relation table from many to many relation between student and course</i>	
dbo.Topic (8 rows)	8
<i>Topic table which holds course's topics data</i>	

Views:

dbo.Exam_question	9
<i>Views Exam Questions along with the Choices of the Questions that the student can choose from</i>	
dbo.Exam_question_And_ANSWERS	9
<i>Views the Exam along with the Student's answer on it</i>	

Procedures:

dbo.AddStudent	10
dbo.course_Topics	10
dbo.crud_QuestionChoicesDelete	10

dbo.crud_QuestionDelete	10
dbo.crud_QuestionInsert	11
dbo.crud_QuestionSelect	11
dbo.crud_QuestionUpdate	11
dbo.deleteSpecificCourse	12
dbo.deleteSpecificDepartmentById	12
dbo.deleteSpecificDepartmentByName	12
dbo.deleteSpecificInstructor	13
dbo.deleteSpecificTopic	13
dbo.DeleteStudent	13
dbo.Exam_Answers	13
<i>Stored procedure to get answers of an exam</i>	
dbo.Exam_Correction	14
<i>Stored procedure to correct a specific exam for grading.</i>	
dbo.Exam_Question_info	14
<i>Stored procedure to get Choices Content of a Question.</i>	
dbo.Exam_Question_info_with_Answers	14
<i>Stored procedure to get Choices Content of a Question along with the answer.</i>	
dbo.GenerateExam	15
<i>Stored procedure to generate an exam.</i>	
dbo.insertNewCourse	15
dbo.insertNewDepartment	15
dbo.insertSpecificInstructor	16
dbo.insertSpecificTopic	16
dbo.InstructorByID3	16
dbo.procCatchError	17
dbo.retrieveAllCourseData	17
dbo.retrieveAllInstructorsData	18
dbo.retrieveAllTopicData	18
dbo.retrieveDepartmentData	18
dbo.retrieveDepartmentDataById	18
dbo.retrieveDepartmentDataByName	19
dbo.retrieveSpecificCourseData	19
dbo.retrieveSpecificTopicData	19
dbo.RetrieveAllStudentData	19
dbo.Select_Student_Grades	20
dbo.SelectStudent_ByDepNo	20
dbo.SelectStudentByID3	20

dbo.student_infromation	21
dbo.updateDepartmentData	21
dbo.updateSpecificCourse	21
dbo.updateSpecificInstructor	22
dbo.updateSpecificTopic	22
dbo.UpdateStudentData	22

Tables:

Table `dbo.answrsOfTheQuestion` (30 rows)

The answers of the questions that the student had answered in his exam

	Column	Data Type	Identity	Nullable	Default
PK, FK	questionIdFK	int			
<i>One of the composite primary key, references to the Qs ID</i>					
PK, FK	studentIdFK	int			
<i>One of the composite primary key, references to the student Id</i>					
PK, FK	examIdFK	int			
<i>One of the composite primary key, references to the Exam Id</i>					
	questionAnswer	nvarchar(50)			
<i>The student's answer to the question</i>					
	gradeOfTheAnswer	int			
<i>The answers standard grade</i>					

Indexes:

pk_qs_answer (Primary Key) (Clustered)

questionIdFK
studentIdFK
examIdFK

References:

dbo.Exam (examIdFK -> examId)

dbo.Question (questionIdFK -> questionId)

dbo.Student (studentIdFK -> studentId)

Triggers:

Cant_Delete (After Delete)

Cant_Update (Instead Of Update)

Used by:

Procedure `dbo.Exam_Answers`

Procedure `dbo.Exam_Correction`

Procedure `dbo.SelectStudentByID3`

View `dbo.Exam_question_And_ANSWERS`

Table `dbo.Course` (2 rows)

The courses that we have in organization

	Column	Data Type	Identity	Nullable	Default
PK, UK	courseId	int	X		
<i>The primary key of the course</i>					
	courseName	nvarchar(30)			
<i>The name of the course</i>					

Indexes:

PK__Course__2AA84FD1504F2F69 (Primary Key) (Clustered)

courseId

IndexOf_CourseName (Unique)

courseId

Referenced by:

dbo.Exam (courseIdFK -> courseId)

dbo.instructorTeachesCourse (courseIdFK -> courseId)

dbo.Question (courseIdFK -> courseId)

dbo.studentEnrollsInCourse (courseIdFK -> courseId)

dbo.Topic (courseIdFK -> courseId)

Used by:

Procedure dbo.course_Topics

Procedure dbo.deleteSpecificCourse

Procedure dbo.GenerateExam

Procedure dbo.insertNewCourse

Procedure dbo.InstructorByID3

Procedure dbo.retrieveAllCourseData

Procedure dbo.retrieveSpecificCourseData

Procedure dbo.Select_Student_Grades

Procedure dbo.SelectStudentByID3

Procedure dbo.updateSpecificCourse

Table dbo.Department (4 rows)

The departments of the organization

	Column	Data Type	Identity	Nullable	Default
PK	deptId	int	X		
<i>The primary key of the department table</i>					
UK	deptName	nvarchar(30)			
<i>The name of the department</i>					

Indexes:

PK__Departme__BE2D26B6C7DA3F4C (Primary Key) (Clustered)

deptId

UQ__Departme__923D729D6273483C (Unique)

deptName

Referenced by:

dbo.Instructor (deptIdFK -> deptId)

dbo.Student (deptIdFK -> deptId)

Used by:**Procedure** `dbo.AddStudent`**Procedure** `dbo.deleteSpecificDepartmentById`**Procedure** `dbo.deleteSpecificDepartmentByName`**Procedure** `dbo.insertNewDepartment`**Procedure** `dbo.insertSpecificInstructor`**Procedure** `dbo.retrieveDepartmentData`**Procedure** `dbo.retrieveDepartmentDataById`**Procedure** `dbo.retrieveDepartmentDataByName`**Procedure** `dbo.student_information`**Procedure** `dbo.updateDepartmentData`**Procedure** `dbo.updateSpecificInstructor`**Procedure** `dbo.UpdateStudentData`**Table** `dbo.Exam` (3 rows)*The exams generated for the students*

	Column	Data Type	Identity	Nullable	Default
PK	examId	int	X		
<i>The primary key of the exam table</i>					
	examTime	time		X	'0:45:0'
<i>The duration time of the exam that the student will have</i>					
	totalExamGrade	int		X	
<i>The final grade of the exam</i>					
FK	courseIdFK	int			
<i>Course Id as a Refernce (FK) to the Course table</i>					

Indexes:**PK__Exam__A56D125F57A03E7E** (Primary Key) (Clustered)

examId

References:**dbo.Course** (*courseIdFK -> courseId*)**Referenced by:****dbo.ansewrsOfTheQuestion** (*examIdFK -> examId*)**dbo.examQuestions** (*examIdFK -> examId*)**Used by:****Procedure** `dbo.Exam_Correction`**Table** `dbo.examQuestions` (30 rows)*The relationship between the exam and the question*

	Column	Data Type	Identity	Nullable	Default
--	--------	-----------	----------	----------	---------

PK, FK	examIdFK	int			
One of the composite primary key of that table references to the exam table					
PK, FK	questionIdFK	int			
One of the composite primary key of that table references to the exam table					

Indexes:

pk_exam_qs (Primary Key) (Clustered)

examIdFK
questionIdFK

References:

dbo.Exam (examIdFK -> examId)

dbo.Question (questionIdFK -> questionId)

Used by:

Procedure **dbo.Exam_Answers**

Procedure **dbo.GenerateExam**

View **dbo.Exam_question**

Table **dbo.Instructor** (2 rows)

The table of the instructors in the organization

	Column	Data Type	Identity	Nullable	Default
PK	instId	int	X		
The primary key of the instructor					
	instFName	nvarchar(30)			
The first name of the instructor					
	instLName	nvarchar(30)			
The last name of the instructor					
	instAddress	nvarchar(30)		X	'Cairo'
The address of the instructor					
	instSalary	float		X	2000
The salary of the instructor					
FK	supervisorId	int		X	
The primary key of the supervisor references to the instructor Id as a self relation					
FK	deptIdFK	int			
The dept id is a foregin key references to the the dept Id which the instructor is working for					
	workingHours	int		X	
The working hours of the instructor					

Indexes:

PK__Instruct__980FD1D7DA27A069 (Primary Key) (Clustered)

instId

References:

dbo.Department (deptIdFK -> deptId)

dbo.Instructor (supervisorId -> instId)

Referenced by:

dbo.Instructor (supervisorId -> instId)

dbo.instructorTeachesCourse (*instIdFK -> instId*)

Used by:

Procedure **dbo.deleteSpecificInstructor**

Procedure **dbo.insertSpecificInstructor**

Procedure **dbo.InstructorByID3**

Procedure **dbo.retrieveAllInstructorsData**

Procedure **dbo.updateSpecificInstructor**

Table dbo.instructorTeachesCourse (2 rows)

The table of the instructors and their courses they teach (M:M Relationship)

	Column	Data Type	Identity	Nullable	Default
PK, FK	courseIdFK	int			
<i>The Course Id as a Reference (FK) from Course Table</i>					
PK, FK	instIdFK	int			
<i>The instructor Id as a Reference (FK) from the Instructor table</i>					

Indexes:

pk_course_instructor (Primary Key) (Clustered)

courseIdFK
instIdFK

References:

dbo.Course (*courseIdFK -> courseId*)

dbo.Instructor (*instIdFK -> instId*)

Used by:

Procedure **dbo.InstructorByID3**

Table dbo.Question (40 rows)

The questions of the courses which will be included in the exams

	Column	Data Type	Identity	Nullable	Default
PK	questionId	int	X		
<i>The primary key of the question table</i>					
	question	nvarchar(255)		X	
<i>The question sentence</i>					
	questionModelAnswer	nvarchar(20)			
<i>The model answer of the question</i>					
	questionGrade	int			
<i>The standard grade of the question</i>					
	questionType	nvarchar(30)			
<i>The type of the question that defines if the question is a (True or false question) or (Mcq one)</i>					
FK	courseIdFK	int			
<i>The course Id is a foregin key refernces to the Course which the question belongs to</i>					

Indexes:

PK__Question__6238D4B2C33A2716 (Primary Key) (Clustered)

questionId

References:

dbo.Course (courseIdFK -> courseId)

Referenced by:

dbo.ansewrsOfTheQuestion (questionIdFK -> questionId)

dbo.examQuestions (questionIdFK -> questionId)

dbo.questionChoices (questionId)

Used by:

Procedure dbo.crud_QuestionDelete

Procedure dbo.crud_QuestionInsert

Procedure dbo.crud_QuestionSelect

Procedure dbo.crud_QuestionUpdate

View dbo.Exam_question

View dbo.Exam_question_And_ANSWERS

Table dbo.questionChoices (120 rows)

The choices of the question

	Column	Data Type	Identity	Nullable	Default
PK, FK	questionId	int			
<i>One of the composite primary key of that table which references to the question table</i>					
PK	questionChoice	nvarchar(30)			
<i>One of the composite primary key of that table which is a choice of the question as (A, B, C, D.. etc)</i>					
	choiceContent	nvarchar(255)			
<i>The choice sentence of each question</i>					

Indexes:

PK_questionChoices (Primary Key) (Clustered)

questionId
questionChoice

References:

dbo.Question (questionId)

Used by:

Procedure dbo.crud_QuestionChoicesDelete

Procedure dbo.crud_QuestionInsert

Procedure dbo.crud_QuestionUpdate

View dbo.Exam_question

Table dbo.Student (5 rows)*Student data*

	Column	Data Type	Identity	Nullable	Default
PK	studentId	int	X		
<i>Student id primary key of the student table</i>					
	studentFName	nvarchar(30)			
<i>Student's first name</i>					
	studentLName	nvarchar(30)			
<i>Student's last name</i>					
	studentAddress	nvarchar(30)		X	'Cairo'
<i>Student's address</i>					
FK	deptIdFK	int			
<i>A foregin key which references to the department table that the student belongs to</i>					

Indexes:**PK__Student__4D11D63CF6E0CD03** (Primary Key) (Clustered)

studentId

References:**dbo.Department** (deptIdFK -> deptId)**Referenced by:****dbo.ansewrsOfTheQuestion** (studentIdFK -> studentId)**dbo.studentEnrollsInCourse** (studentIdFK -> studentId)**Used by:****Procedure dbo.AddStudent****Procedure dbo.DeleteStudent****Procedure dbo.RetrieveAllStudentData****Procedure dbo.SelectStudent_ByDepNo****Procedure dbo.SelectStudentById3****Procedure dbo.student_information****Procedure dbo.UpdateStudentData****Table dbo.studentEnrollsInCourse** (5 rows)*Relation table from many to many relation between student and course*

	Column	Data Type	Identity	Nullable	Default
PK, FK	studentIdFK	int			
<i>Primary key of student table</i>					
PK, FK	courseIdFK	int			
<i>primary key of course table</i>					
	grade	float		X	
<i>Student grade in a specific course</i>					

Indexes:

pk_student_course (Primary Key) (Clustered)

studentIdFK
courseIdFK

References:

dbo.Course (courseIdFK -> courseId)

dbo.Student (studentIdFK -> studentId)

Triggers:

Delete_student_grade (After Delete)

Used by:

Procedure dbo.Exam_Correction

Procedure dbo.InstructorByID3

Procedure dbo.Select_Student_Grades

Procedure dbo.SelectStudentByID3

Table dbo.Topic (8 rows)

Topic table which holds course's topics data

	Column	Data Type	Identity	Nullable	Default
PK	topicId	int	X		
<i>Topic id primary key of table</i>					
	topicName	nvarchar(30)			
<i>Topic name like oop in c++ course</i>					
FK	courseIdFK	int			
<i>Foregin key to course table because each course has many topics</i>					

Indexes:

PK__Topic__72C15B41F423B9C1 (Primary Key) (Clustered)

topicId

References:

dbo.Course (courseIdFK -> courseId)

Used by:

Procedure dbo.course_Topics

Procedure dbo.deleteSpecificTopic

Procedure dbo.insertSpecificTopic

Procedure dbo.retrieveAllTopicData

Procedure dbo.retrieveSpecificTopicData

Procedure dbo.updateSpecificTopic

Views:

View dbo.Exam_question

Views Exam Questions along with the Choices of the Questions that the student can choose from

Column	Data Type	Nullable
examIdFK	int	
questionIdFFK	int	
question	nvarchar(255)	X
questionType	nvarchar(30)	
questionChoice	nvarchar(30)	
choiceContent	nvarchar(255)	

Used by:

Procedure dbo.Exam_Question_info

Uses:

Table dbo.examQuestions

Table dbo.Question

Table dbo.questionChoices

View dbo.Exam_question_And_ANSWERS

Views the Exam along with the Student's answer on it

Column	Data Type	Nullable
studentId	int	
examId	int	
questionId	int	
question	nvarchar(255)	X
questionChoice	nvarchar(30)	
choiceContent	nvarchar(255)	
questionAnswer	nvarchar(50)	

Used by:

Procedure dbo.Exam_Question_info_with_Answers

Uses:

Table dbo.ansewrsOfTheQuestion

Table dbo.Question

Table dbo.questionChoices

Procedures:

Procedure dbo.AddStudent

Parameter	Data Type	Default	Is Output
@stud_fname	nvarchar(30)		
@stud_lname	nvarchar(30)		
@studentadd	nvarchar(30)		
@deptname	nvarchar(30)		

Uses:

Table dbo.Department

Table dbo.Student

Procedure dbo.course_Topics

Parameter	Data Type	Default	Is Output
@ID	int		

Result:

Column	Data Type	Nullable
courseName	nvarchar(30)	
topicName	nvarchar(30)	

Uses:

Table dbo.Course

Table dbo.Topic

Procedure dbo.crud_QuestionChoicesDelete

Parameter	Data Type	Default	Is Output
@questionId	int		

Used by:

Procedure dbo.crud_QuestionDelete

Uses:

Table dbo.questionChoices

Procedure dbo.crud_QuestionDelete

Parameter	Data Type	Default	Is Output
@questionId	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(5)	

Uses:

Procedure **dbo.crud_QuestionChoicesDelete**

Table **dbo.Question**

Procedure dbo.crud_QuestionInsert

Parameter	Data Type	Default	Is Output
@question	nvarchar(50)		
@questionModelAnswer	nvarchar(20)		
@questionGrade	int		
@questionType	nvarchar(30)		
@courseIdFK	int		

Result:

Column	Data Type	Nullable
questionId	int	
question	nvarchar(255)	X
questionModelAnswer	nvarchar(20)	
questionGrade	int	
questionType	nvarchar(30)	
courseIdFK	int	

Uses:

Table **dbo.Question**

Table **dbo.questionChoices**

Procedure dbo.crud_QuestionSelect

Parameter	Data Type	Default	Is Output
@questionId	int		

Result:

Column	Data Type	Nullable
questionId	int	
question	nvarchar(255)	X
questionModelAnswer	nvarchar(20)	
questionGrade	int	
questionType	nvarchar(30)	
courseIdFK	int	

Uses:

Table **dbo.Question**

Procedure dbo.crud_QuestionUpdate

Parameter	Data Type	Default	Is Output
@questionId	int		
@question	nvarchar(50)		
@questionModelAnswer	nvarchar(20)		
@questionGrade	int		
@questionType	nvarchar(30)		

@courseIdFK	int		
-------------	-----	--	--

Result:

Column	Data Type	Nullable
(No column name)	varchar(34)	

Uses:

Table **dbo.Question**

Table **dbo.questionChoices**

Procedure dbo.deleteSpecificCourse

Parameter	Data Type	Default	Is Output
@courseId	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(26)	

Uses:

Table **dbo.Course**

Procedure dbo.deleteSpecificDepartmentById

Parameter	Data Type	Default	Is Output
@departmentId	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(38)	

Uses:

Procedure **dbo.procCatchError**

Table **dbo.Department**

Procedure dbo.deleteSpecificDepartmentByName

Parameter	Data Type	Default	Is Output
@departmentName	nvarchar(30)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(38)	

Uses:

Procedure **dbo.procCatchError**

Table dbo.Department

Procedure dbo.deleteSpecificInstructor

Parameter	Data Type	Default	Is Output
@instId	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(30)	

Uses:

Table dbo.Instructor

Procedure dbo.deleteSpecificTopic

Parameter	Data Type	Default	Is Output
@topicId	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(25)	

Uses:

Table dbo.Topic

Procedure dbo.DeleteStudent

Parameter	Data Type	Default	Is Output
@studid	int		

Uses:

Table dbo.Student

Procedure dbo.Exam_Answers

Stored procedure to get answers of an exam

Parameter	Data Type	Default	Is Output
@student_id	int		
@exam_id	int		
@answr1	nvarchar(20)		
@answr2	nvarchar(20)		
@answr3	nvarchar(20)		
@answr4	nvarchar(20)		
@answr5	nvarchar(20)		
@answr6	nvarchar(20)		
@answr7	nvarchar(20)		
@answr8	nvarchar(20)		
@answr9	nvarchar(20)		
@answr10	nvarchar(20)		

Uses:

Table **dbo.ansewrsOfTheQuestion**

Table **dbo.examQuestions**

Procedure dbo.Exam_Correction

Stored procedure to correct a specific exam for grading.

Parameter	Data Type	Default	Is Output
@exam_id	int		
@stud_id	int		
@final_student_grade	float		X

Used by:

Procedure **dbo.SelectStudentByID3**

Uses:

Table **dbo.ansewrsOfTheQuestion**

Table **dbo.Exam**

Table **dbo.studentEnrollsInCourse**

Procedure dbo.Exam_Question_info

Stored procedure to get Choices Content of a Question.

Parameter	Data Type	Default	Is Output
@ex_id	int		

Result:

Column	Data Type	Nullable
examIdFK	int	
questionIdFFK	int	
question	nvarchar(255)	X
A	nvarchar(255)	X
B	nvarchar(255)	X
C	nvarchar(255)	X
D	nvarchar(255)	X
T	nvarchar(255)	X
F	nvarchar(255)	X

Uses:

View **dbo.Exam_question**

Procedure dbo.Exam_Question_info_with_Answers

Stored procedure to get Choices Content of a Question along with the answer.

Parameter	Data Type	Default	Is Output
@ex_id	int		
@stud_id	int		

Result:

Column	Data Type	Nullable
StudentId	int	
examId	int	
questionId	int	
question	nvarchar(255)	X
A	nvarchar(255)	X
B	nvarchar(255)	X
C	nvarchar(255)	X
D	nvarchar(255)	X
T	nvarchar(255)	X
F	nvarchar(255)	X
questionAnswer	nvarchar(50)	

Uses:

View dbo.Exam_question_And_ANSWERS

Procedure dbo.GenerateExam

Stored procedure to generate an exam.

Parameter	Data Type	Default	Is Output
@cours_name	varchar(20)		
@num_of_mcq	int		
@num_of_tf	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(24)	

Uses:

Table dbo.Course

Table dbo.examQuestions

Procedure dbo.insertNewCourse

Parameter	Data Type	Default	Is Output
@courseName	nvarchar(30)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(32)	

Uses:

Table dbo.Course

Procedure dbo.insertNewDepartment

Parameter	Data Type	Default	Is Output
@departmentName	nvarchar(30)		

Result:

Column	Data Type	Nullable
ErrorNumber	int	X
ErrorSeverity	int	X
ErrorState	int	X
ErrorLine	int	X
ErrorProcedure	nvarchar(128)	X
ErrorMessage	nvarchar(4000)	X

Uses:

Procedure **dbo.procCatchError**

Table **dbo.Department**

Procedure dbo.insertSpecificInstructor

Parameter	Data Type	Default	Is Output
@fName	nvarchar(30)		
@lName	nvarchar(30)		
@address	nvarchar(30)		
@salary	int		
@supervisorId	int		
@deptId	int		
@workingHours	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(14)	

Uses:

Table **dbo.Department**

Table **dbo.Instructor**

Procedure dbo.insertSpecificTopic

Parameter	Data Type	Default	Is Output
@topicName	nvarchar(30)		
@courseId	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(29)	

Uses:

Table **dbo.Topic**

Procedure dbo.InstructorByID3

Parameter	Data Type	Default	Is Output
@ID	int		

Result:

Column	Data Type	Nullable
FullName	nvarchar(61)	
instId	int	
courseName	nvarchar(30)	
NoOfStudent	int	X

Uses:**Table dbo.Course****Table dbo.Instructor****Table dbo.instructorTeachesCourse****Table dbo.studentEnrollsInCourse****Procedure dbo.procCatchError***No parameters.***Result:**

Column	Data Type	Nullable
ErrorNumber	int	X
ErrorSeverity	int	X
ErrorState	int	X
ErrorLine	int	X
ErrorProcedure	nvarchar(128)	X
ErrorMessage	nvarchar(4000)	X

Used by:**Procedure dbo.deleteSpecificDepartmentById****Procedure dbo.deleteSpecificDepartmentByName****Procedure dbo.insertNewDepartment****Procedure dbo.retrieveDepartmentDataById****Procedure dbo.retrieveDepartmentDataByName****Procedure dbo.updateDepartmentData****Procedure dbo.retrieveAllCourseData***No parameters.***Result:**

Column	Data Type	Nullable
Course Number	int	
Course Title	nvarchar(30)	

Uses:**Table dbo.Course**

Procedure dbo.retrieveAllInstructorsData

No parameters.

Result:

Column	Data Type	Nullable
Instructor Number	int	
Full Name	nvarchar(61)	
Address	nvarchar(30)	X
Salary	float	X
Supervisor Number	int	X

Uses:

Table dbo.Instructor

Procedure dbo.retrieveAllTopicData

No parameters.

Result:

Column	Data Type	Nullable
Topic Number	int	
Topic	nvarchar(30)	
Course Number	int	

Uses:

Table dbo.Topic

Procedure dbo.retrieveDepartmentData

No parameters.

Result:

Column	Data Type	Nullable
Department ID	int	
Department Name	nvarchar(30)	

Uses:

Table dbo.Department

Procedure dbo.retrieveDepartmentDataById

Parameter	Data Type	Default	Is Output
@departmentId	int		

Result:

Column	Data Type	Nullable
Department ID	int	
Department Name	nvarchar(30)	

Uses:

Procedure **dbo.procCatchError**

Table **dbo.Department**

Procedure dbo.retrieveDepartmentDataByName

Parameter	Data Type	Default	Is Output
@departmentName	nvarchar(30)		

Result:

Column	Data Type	Nullable
Department ID	int	
Department Name	nvarchar(30)	

Uses:

Procedure **dbo.procCatchError**

Table **dbo.Department**

Procedure dbo.retrieveSpecificCourseData

Parameter	Data Type	Default	Is Output
@courseId	int		

Result:

Column	Data Type	Nullable
Course Number	int	
Course Title	nvarchar(30)	

Uses:

Table **dbo.Course**

Procedure dbo.retrieveSpecificTopicData

Parameter	Data Type	Default	Is Output
@topicId	int		

Result:

Column	Data Type	Nullable
Topic Number	int	
Topic	nvarchar(30)	
Course Number	int	

Uses:

Table **dbo.Topic**

Procedure dbo.RetrieveAllStudentData

No parameters.

Result:

Column	Data Type	Nullable
studentId	int	
studentFName	nvarchar(30)	
studentLName	nvarchar(30)	
studentAddress	nvarchar(30)	X
deptIdFK	int	

Uses:

Table **dbo.Student**

Procedure dbo.Select_Student_Grades

Parameter	Data Type	Default	Is Output
@student_id	int		

Result:

Column	Data Type	Nullable
studentIdFK	int	
grade	float	X
courseName	nvarchar(30)	

Uses:

Table **dbo.Course**

Table **dbo.studentEnrollsInCourse**

Procedure dbo.SelectStudent_ByDepNo

Parameter	Data Type	Default	Is Output
@DepNo	int		

Result:

Column	Data Type	Nullable
studentId	int	
studentFName	nvarchar(30)	
studentLName	nvarchar(30)	
studentAddress	nvarchar(30)	X
deptIdFK	int	

Uses:

Table **dbo.Student**

Procedure dbo.SelectStudentByID3

Parameter	Data Type	Default	Is Output
@ID	int		

Result:

Column	Data Type	Nullable
NameOfStudent	nvarchar(61)	

courseName	nvarchar(30)	
grade	float	X

Uses:

Procedure **dbo.Exam_Correction**

Table **dbo.ansewrsOfTheQuestion**

Table **dbo.Course**

Table **dbo.Student**

Table **dbo.studentEnrollsInCourse**

Procedure **dbo.student_infomation**

Parameter	Data Type	Default	Is Output
@dept_id	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(38)	

Uses:

Table **dbo.Department**

Table **dbo.Student**

Procedure **dbo.updateDepartmentData**

Parameter	Data Type	Default	Is Output
@oldDeptId	int		
@newDeptName	nvarchar(30)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(41)	

Uses:

Procedure **dbo.procCatchError**

Table **dbo.Department**

Procedure **dbo.updateSpecificCourse**

Parameter	Data Type	Default	Is Output
@courseId	int		
@courseName	nvarchar(30)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(26)	

Uses:

Table **dbo.Course**

Procedure dbo.updateSpecificInstructor

Parameter	Data Type	Default	Is Output
@instId	int		
@fName	nvarchar(30)		
@lName	nvarchar(30)		
@address	nvarchar(30)		
@salary	int		
@supervisorId	int		
@deptId	int		
@workingHours	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(14)	

Uses:

Table **dbo.Department**

Table **dbo.Instructor**

Procedure dbo.updateSpecificTopic

Parameter	Data Type	Default	Is Output
@topicId	int		
@topicName	nvarchar(30)		
@courseId	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(25)	

Uses:

Table **dbo.Topic**

Procedure dbo.UpdateStudentData

Parameter	Data Type	Default	Is Output
@studid	int		
@stud_fname	nvarchar(30)		
@stud_lname	nvarchar(30)		
@studentadd	nvarchar(30)		
@deptname	nvarchar(30)		

Uses:

Table **dbo.Department**

Table **dbo.Student**