

Generated using SQL Data Dictionary demo version.

SQLProject

Tables:

dbo.Administrators (1 row)	1
dbo.Courses (8 rows)	2
dbo.CR_EX_QS (81 rows)	3
dbo.Departments (6 rows)	4
dbo.Exams (8 rows)	5
dbo.IN_ST_CR (15 rows)	6
dbo.Instructors (8 rows)	7
dbo.Login_Data (4 rows)	8
dbo.QS_Choices (80 rows)	9
dbo.Questions (40 rows)	9
dbo.ST_EX_Answers (30 rows)	11
dbo.Students (12 rows)	11
dbo.Topics (36 rows)	13

Views:

dbo.ALLMEMBERS	15
-----------------------------	----

Procedures:

dbo.Check_Corrective	16
dbo.Check_Corrective_By_Dep	16
dbo.Convert_Date	17
dbo.Correct_Student_Exam	17
dbo.Delete_Administrator	18
dbo.Delete_Choice	18
dbo.Delete_Course	18
dbo.Delete_Department	18
dbo.Delete_Exam	19
dbo.Delete_IN_ST_CR	19
dbo.Delete_Instructor	19
dbo.Delete_Instructor_Course	19
dbo.Delete_Login_Data	20
dbo.Delete_Question	20
dbo.Delete_ST_Courses	20
dbo.Delete_ST_EX_Answers	20
dbo.Delete_Student	20
dbo.Delete_Topic	21

dbo.Get_Course_Topics	21
dbo.Get_Exam_Questions	21
dbo.Get_Instructor_Courses	22
dbo.Get_Student_Answers	22
dbo.Get_Student_Grades	23
dbo.Get_Students_By_Department	23
dbo.Insert_Administrator	24
dbo.Insert_Course	24
dbo.Insert_Department	24
dbo.Insert_Exam	25
dbo.Insert_IN_ST_CR	25
dbo.Insert_Instructor	26
dbo.Insert_Instructor_Course	26
dbo.Insert_Login_Data	26
dbo.Insert_Question_MCQ	27
dbo.Insert_Question_TF	27
dbo.Insert_ST_Courses	27
dbo.Insert_ST_EX_Answers	27
dbo.Insert_Student	28
dbo.Insert_Student_Exam	28
dbo.Insert_Topic	29
dbo.Update_Administrator	29
dbo.Update_Choice	29
dbo.Update_Course	30
dbo.Update_Department	30
dbo.Update_Grade	30
dbo.Update_IN_ST_CR	30
dbo.Update_Instructor	31
dbo.Update_Login_Data	31
dbo.Update_Profile	31
dbo.Update_Question	32
dbo.Update_Question_Choices	33
dbo.Update_Question_MCQ	33
dbo.Update_Question_TF	33
dbo.Update_ST_Courses	34
dbo.Update_ST_EX_Answers	34
dbo.Update_Student	34
dbo.Update_Topic	35

Functions:

dbo.CR_Grade	36
---------------------------	-----------

Tables:

Table dbo.Administrators (1 row)

	Column	Data Type	Identity	Nullable	Default
PK	AD_ID	int			
	AD_Fname	varchar(50)			
	AD_Lname	varchar(50)			
	AD_Name	varchar(101)			
	AD_Bdate	date			getdate()
	AD_Age	int		X	
	AD_Phone	varchar(50)		X	
	AD_Salary	money		X	5000
	AD_Street	varchar(50)		X	
	AD_City	varchar(50)		X	
	AD_Country	varchar(50)		X	'Egypt'
	AD_HireDate	datetime			

Indexes:

PK__Administrator__EE09FCFED2F3FAAC (Primary Key) (Clustered) (100% Selectivity)

AD_ID

Used by:

Procedure dbo.Delete_Administrator

AD_ID

Procedure dbo.Insert_Administrator

AD_Bdate
AD_City
AD_Country
AD_Fname
AD_ID
AD_Lname
AD_Phone
AD_Salary
AD_Street

Procedure dbo.Update_Administrator

AD_Bdate
AD_City
AD_Country
AD_Fname
AD_ID
AD_Lname
AD_Phone
AD_Salary
AD_Street

Procedure dbo.Update_Profile

AD_Bdate
AD_City
AD_Country
AD_Fname
AD_ID
AD_Lname
AD_Phone
AD_Street

View dbo.ALLMEMBERS

AD_ID
AD_Name

Table dbo.Courses (8 rows)

	Column	Data Type	Identity	Nullable	Default
PK	CR_ID	int	X		
	CR_Name	varchar(50)			
	CR_Grade	int			

Indexes:

PK__Courses__C858F92D43C4C8A0 (Primary Key) (Clustered) (12.5% Selectivity)

CR_ID

Referenced by:

dbo.CR_EX_QS (CR_ID)

dbo.IN_ST_CR (CR_ID)

dbo.Questions (CR_ID)

dbo.Topics (CR_ID)

Used by:

Function dbo.CR_Grade

CR_Grade
CR_ID

Procedure dbo.Check_Corrective

CR_Grade
CR_ID
CR_Name

Procedure dbo.Check_Corrective_By_Dep

CR_Grade
CR_ID
CR_Name

Procedure dbo.Correct_Student_Exam

CR_Grade
CR_ID

Procedure dbo.Delete_Course

CR_ID

Procedure dbo.Delete_Instructor_Course

CR_ID

Procedure dbo.Get_Course_Topics

CR_ID
CR_Name

Procedure dbo.Get_Instructor_Courses

CR_ID
CR_Name

Procedure dbo.Get_Student_Grades

CR_ID
CR_Name

Procedure dbo.Insert_Course

CR_ID
CR_Name

Procedure dbo.Insert_Exam

CR_ID
CR_Name

Procedure dbo.Insert_IN_ST_CR

CR_ID

Procedure dbo.Insert_Instructor_Course

CR_ID

Procedure dbo.Insert_Question_MCQ

CR_ID
CR_Name

Procedure dbo.Insert_Question_TF

CR_ID
CR_Name

Procedure dbo.Insert_Topic

CR_ID

Procedure dbo.Update_Course

CR_Grade
CR_ID
CR_Name

Table dbo.CR_EX_QS (81 rows)

	Column	Data Type	Identity	Nullable	Default
PK, FK	CR_ID	int			
PK, FK	EX_ID	int			
PK, FK	QS_ID	int			

Indexes:

PK_CR_EX_QS (Primary Key) (Clustered) (1.23% Selectivity)

CR_ID
EX_ID
QS_ID

References:

dbo.Courses (CR_ID)

dbo.Exams (EX_ID)

dbo.Questions (QS_ID)

Used by:

Procedure dbo.Check_Corrective_By_Dep

CR_ID
EX_ID

Procedure dbo.Correct_Student_Exam

CR_ID
EX_ID
QS_ID

Procedure dbo.Delete_Course

CR_ID

Procedure dbo.Delete_Question

QS_ID

Procedure dbo.Get_Exam_Questions

EX_ID
QS_ID

Procedure dbo.Insert_Exam

CR_ID
EX_ID
QS_ID

Procedure dbo.Insert_Student_Exam

EX_ID
QS_ID

Procedure dbo.Update_Question

QS_ID

Procedure dbo.Update_Question_MCQ

QS_ID

Procedure dbo.Update_Question_TF

QS_ID

Table dbo.Departments (6 rows)

	Column	Data Type	Identity	Nullable	Default
PK	DP_ID	int	X		
	DP_Name	varchar(50)			
FK	DP_Manager	int			

Indexes:

PK__Departme__7E732EA0779AE3A0 (Primary Key) (Clustered) (16.67% Selectivity)

DP_ID

References:

dbo.Instructors (DP_Manager -> IN_ID)

Referenced by:

dbo.Instructors (DP_ID)

dbo.Students (*DP_ID*)

Used by:

Procedure dbo.Check_Corrective_By_Dep

DP_ID
DP_Name

Procedure dbo.Delete_Department

DP_ID

Procedure dbo.Delete_Instructor

DP_Manager

Procedure dbo.Get_Students_By_Department

DP_ID
DP_Name

Procedure dbo.Insert_Department

DP_ID
DP_Manager
DP_Name

Procedure dbo.Update_Department

DP_ID
DP_Manager
DP_Name

Table dbo.Exams (*8 rows*)

	Column	Data Type	Identity	Nullable	Default
PK	EX_ID	int	X		
	EX_Date	date		X	getdate()

Indexes:

PK_Exams (*Primary Key*) (*Clustered*) (*12.5% Selectivity*)

EX_ID

Referenced by:

dbo.CR_EX_QS (*EX_ID*)

dbo.ST_EX_Answers (*EX_ID*)

Used by:

Procedure dbo.Delete_Exam

EX_Date
EX_ID

Procedure dbo.Get_Exam_Questions

EX_ID

Procedure dbo.Get_Student_Answers

EX_ID

Procedure dbo.Insert_Exam

Procedure dbo.Insert_ST_EX_Answers

EX_ID

Procedure dbo.Insert_Student_Exam

EX_ID

Table dbo.IN_ST_CR (15 rows)

	Column	Data Type	Identity	Nullable	Default
PK, FK	IN_ID	int			
PK, FK	ST_ID	int			
PK, FK	CR_ID	int			
	Grade	int		X	
	Date	date			getdate()

Indexes:

PK_IN_ST_CR (Primary Key) (Clustered) (6.67% Selectivity)

IN_ID
ST_ID
CR_ID

References:

dbo.Courses (CR_ID)

dbo.Instructors (IN_ID)

dbo.Students (ST_ID)

Used by:

Procedure dbo.Check_Corrective

CR_ID
Grade
ST_ID

Procedure dbo.Check_Corrective_By_Dep

CR_ID
Grade
ST_ID

Procedure dbo.Correct_Student_Exam

CR_ID
Grade
ST_ID

Procedure dbo.Delete_Course

CR_ID

Procedure dbo.Delete_IN_ST_CR

CR_ID
IN_ID
ST_ID

Procedure dbo.Get_Instructor_Courses

CR_ID
IN_ID

ST_ID

Procedure dbo.Get_Student_Grades

CR_ID
Grade
ST_ID

Procedure dbo.Insert_IN_ST_CR

CR_ID
IN_ID
ST_ID

Procedure dbo.Update_Grade

CR_ID
Grade
IN_ID
ST_ID

Procedure dbo.Update_IN_ST_CR

CR_ID
Date
IN_ID
ST_ID

Table dbo.Instructors (8 rows)

	Column	Data Type	Identity	Nullable	Default
PK	IN_ID	int			
	IN_Fname	varchar(50)			
	IN_Lname	varchar(50)			
	IN_Name	varchar(101)			
	IN_Bdate	date			getdate()
	IN_Age	int		X	
	IN_Phone	varchar(50)		X	
	IN_Salary	money		X	5000
	IN_Street	varchar(50)		X	
	IN_City	varchar(50)		X	
	IN_Country	varchar(50)		X	'Egypt'
	IN_HireDate	datetime			
FK	DP_ID	int			

Indexes:

PK__Instruct__EE09FCFED2F3FAAC (Primary Key) (Clustered) (12.5% Selectivity)

IN_ID

References:

dbo.Departments (DP_ID)

Referenced by:

dbo.Departments (DP_Manager -> IN_ID)

dbo.IN_ST_CR (IN_ID)

Used by:

Procedure dbo.Delete_Department

DP_ID

Procedure dbo.Delete_Instructor

IN_ID

Procedure dbo.Delete_Instructor_Course

IN_ID

Procedure dbo.Get_Instructor_Courses

IN_ID
IN_Name

Procedure dbo.Insert_IN_ST_CR

IN_ID

Procedure dbo.Insert_Instructor

DP_ID
IN_Bdate
IN_City
IN_Country
IN_Fname
IN_ID
IN_Lname
IN_Phone
IN_Salary
IN_Street

Procedure dbo.Insert_Instructor_Course

IN_ID

Procedure dbo.Update_Instructor

DP_ID
IN_Bdate
IN_City
IN_Country
IN_Fname
IN_ID
IN_Lname
IN_Phone
IN_Salary
IN_Street

Procedure dbo.Update_Profile

IN_Bdate
IN_City
IN_Country
IN_Fname
IN_ID
IN_Lname
IN_Phone
IN_Street

View dbo.ALLMEMBERS

IN_ID
IN_Name

Table dbo.Login_Data (4 rows)

	Column	Data Type	Identity	Nullable	Default
PK	Username	varchar(50)			
	Password	varchar(50)			

	Email	varchar(50)		X	
	Role	varchar(20)			'anonymous'
	Role_ID	int			0

Indexes:

PK_Login_Data_1 (Primary Key) (Clustered) (25% Selectivity)

Username

Used by:

Procedure dbo.Delete_Login_Data

Username

Procedure dbo.Insert_Login_Data

Email
Password
Username

Procedure dbo.Update_Login_Data

Email
Password
Role
Role_ID
Username

Table dbo.QS_Choices (80 rows)

	Column	Data Type	Identity	Nullable	Default
PK, FK	QS_ID	int			
PK	Choice	varchar(500)			

Indexes:

PK_QS_Choices (Primary Key) (Clustered) (1.25% Selectivity)

QS_ID
Choice

References:

dbo.Questions (QS_ID)

Used by:

Procedure dbo.Delete_Choice

Choice
QS_ID

Procedure dbo.Insert_Question_MCQ

Procedure dbo.Update_Choice

Choice
QS_ID

Procedure dbo.Update_Question_Choices

QS_ID

Table dbo.Questions (40 rows)

	Column	Data Type	Identity	Nullable	Default
PK	QS_ID	int	X		
	QS_Value	varchar(max)		X	
	QS_Type	varchar(20)			
	QS_Correct	varchar(max)			
	QS_Grade	int			1
FK	CR_ID	int			

Indexes:

PK_Questions (Primary Key) (Clustered) (2.5% Selectivity)

QS_ID

References:

dbo.Courses (CR_ID)

Referenced by:

dbo.CR_EX_QS (QS_ID)

dbo.QS_Choices (QS_ID)

dbo.ST_EX_Answers (QS_ID)

Used by:

Procedure dboCorrect_Student_Exam

QS_Correct
QS_Grade
QS_ID

Procedure dbo.Delete_Question

QS_ID

Procedure dbo.Get_Exam_Questions

QS_ID
QS_Value

Procedure dbo.Get_Student_Answers

QS_ID
QS_Value

Procedure dbo.Insert_Exam

CR_ID
QS_ID
QS_Type

Procedure dbo.Insert_Question_MCQ

Procedure dbo.Insert_Question_TF

Procedure dbo.Insert_ST_EX_Answers

QS_ID

Procedure dbo.Update_Question

QS_Grade
QS_ID
QS_Value

Procedure dbo.Update_Question_Choices

QS_ID

Procedure dbo.Update_Question_MCQ

QS_Correct
QS_ID

Procedure dbo.Update_Question_TF

QS_Correct
QS_ID

Table dbo.ST_EX_Answers (30 rows)

	Column	Data Type	Identity	Nullable	Default
PK, FK	ST_ID	int			
PK, FK	EX_ID	int			
PK, FK	QS_ID	int			
	Answer	varchar(max)		X	
	Finished	int			0
	Date	date			getdate()

Indexes:

PK_ST_EX_Answers (Primary Key) (Clustered) (3.33% Selectivity)

ST_ID
EX_ID
QS_ID

References:

dbo.Exams (EX_ID)

dbo.Questions (QS_ID)

dbo.Students (ST_ID)

Used by:**Procedure dbo.Correct_Student_Exam**

Answer
EX_ID
Finished
QS_ID
ST_ID

Procedure dbo.Update_ST_EX_Answers

Answer
Date
EX_ID
Finished
QS_ID
ST_ID

Table dbo.Students (12 rows)

	Column	Data Type	Identity	Nullable	Default
PK	ST_ID	int			
	ST_Fname	varchar(50)			
	ST_Lname	varchar(50)			

	ST_Name	varchar(101)			
	ST_Bdate	date		X	
	ST_Age	int		X	
	ST_Phone	varchar(50)		X	
	ST_Salary	money		X	1000
	ST_Street	varchar(50)		X	
	ST_City	varchar(50)		X	
	ST_Country	varchar(50)		X	'Egypt'
	ST_JoinDate	date			getdate()
FK	DP_ID	int			

Indexes:

PK_Students_EBDB13EF25AA6308 (Primary Key) (Clustered) (8.33% Selectivity)

ST_ID

References:

dbo.Departments (DP_ID)

Referenced by:

dbo.IN_ST_CR (ST_ID)

dbo.ST_EX_Answers (ST_ID)

Used by:

Procedure dbo.Check_Corrective

ST_ID
ST_Name

Procedure dbo.Check_Corrective_By_Dep

DP_ID
ST_ID
ST_Name

Procedure dbo.Delete_Department

DP_ID

Procedure dbo.Delete_Student

ST_ID

Procedure dbo.Get_Student_Answers

ST_ID
ST_Name

Procedure dbo.Get_Student_Grades

ST_ID
ST_Name

Procedure dbo.Get_Students_By_Department

DP_ID
ST_Age
ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_JoinDate
ST_Lname

ST_Name
ST_Phone
ST_Salary
ST_Street

Procedure dbo.Insert_IN_ST_CR

ST_ID

Procedure dbo.Insert_ST_EX_Answers

ST_ID

Procedure dbo.Insert_Student

DP_ID
ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_Lname
ST_Phone
ST_Salary
ST_Street

Procedure dbo.Insert_Student_Exam

ST_ID

Procedure dbo.Update_Profile

ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_Lname
ST_Phone
ST_Street

Procedure dbo.Update_Student

DP_ID
ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_Lname
ST_Phone
ST_Salary
ST_Street

View dbo.ALLMEMBERS

ST_ID
ST_Name

Table dbo.Topics (36 rows)

	Column	Data Type	Identity	Nullable	Default
PK	TP_ID	int	X		
	TP_Name	varchar(100)			
PK, FK	CR_ID	int			

Indexes:

PK_Topics (Primary Key) (Clustered) (2.78% Selectivity)

TP_ID
CR_ID

References:

dbo.Courses (CR_ID)

Used by:

Procedure dbo.Delete_Topic

CR_ID
TP_ID

Procedure dbo.Get_Course_Topics

CR_ID
TP_Name

Procedure dbo.Insert_Topic

CR_ID
TP_ID
TP_Name

Procedure dbo.Update_Topic

CR_ID
TP_ID
TP_Name

Views:

View dbo.ALLMEMBERS

Column	Data Type	Nullable
ID	int	
Name	varchar(101)	

Uses:

Table dbo.Administrators

AD_ID
AD_Name

Table dbo.Instructors

IN_ID
IN_Name

Table dbo.Students

ST_ID
ST_Name

Procedures:

Procedure dbo.Check_Corrective

Parameter	Data Type	Default	Is Output
@CR_ID	int		

Result:

Column	Data Type	Nullable
ST_ID	int	
ST_Name	varchar(101)	
Grade	int	X
CR_Name	varchar(50)	
CR_Grade	int	

Uses:

Table dbo.Courses

CR_Grade
CR_ID
CR_Name

Table dbo.IN_ST_CR

CR_ID
Grade
ST_ID

Table dbo.Students

ST_ID
ST_Name

Procedure dbo.Check_Corrective_By_Dep

Parameter	Data Type	Default	Is Output
@DP_ID	int		

Result:

Column	Data Type	Nullable
DP_Name	varchar(50)	
ST_Name	varchar(101)	
Grade	int	X
CR_Name	varchar(50)	
CR_Grade	int	
EX_ID	int	
ST_ID	int	

Uses:

Table dbo.Courses

CR_Grade
CR_ID
CR_Name

Table dbo.CR_EX_QS

CR_ID

EX_ID

Table dbo.Departments

DP_ID
DP_Name

Table dbo.IN_ST_CR

CR_ID
Grade
ST_ID

Table dbo.Students

DP_ID
ST_ID
ST_Name

Procedure dbo.Convert_Date

Parameter	Data Type	Default	Is Output
@str	varchar(50)		
@RET_VAL	int		X

Used by:

Procedure dbo.Update_Administrator

Procedure dbo.Update_IN_ST_CR

Procedure dbo.Update_Instructor

Procedure dbo.Update_Profile

Procedure dbo.Update_Student

Procedure dbo.Correct_Student_Exam

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@EX_ID	int		

Uses:

Table dbo.Courses

CR_Grade
CR_ID

Table dbo.CR_EX_QS

CR_ID
EX_ID
QS_ID

Table dbo.IN_ST_CR

CR_ID
Grade
ST_ID

Table dbo.Questions

QS_Correct
QS_Grade

QS_ID

Table dbo.ST_EX_Answers

Answer
EX_ID
Finished
QS_ID
ST_ID

Procedure dbo.Delete_Administrator

Parameter	Data Type	Default	Is Output
@AD_ID	int		

Uses:

Table dbo.Administrators

AD_ID

Procedure dbo.Delete_Choice

Parameter	Data Type	Default	Is Output
@QS_ID	int		
@Choice	varchar(max)		

Uses:

Table dbo.QS_Choices

Choice
QS_ID

Procedure dbo.Delete_Course

Parameter	Data Type	Default	Is Output
@CR_ID	int		

Uses:

Table dbo.Courses

CR_ID

Table dbo.CR_EX_QS

CR_ID

Table dbo.IN_ST_CR

CR_ID

Procedure dbo.Delete_Department

Parameter	Data Type	Default	Is Output
@DP_ID	int		

Uses:

Table dbo.Departments

DP_ID

Table dbo.Instructors

DP_ID

Table dbo.Students

DP_ID

Procedure dbo.Delete_Exam

Parameter	Data Type	Default	Is Output
@EX_ID	int		

Uses:**Table dbo.Exams**EX_Date
EX_ID**Procedure dbo.Delete_IN_ST_CR**

Parameter	Data Type	Default	Is Output
@IN_ID	int		
@ST_ID	int		
@CR_ID	int		

Uses:**Table dbo.IN_ST_CR**CR_ID
IN_ID
ST_ID**Procedure dbo.Delete_Instructor**

Parameter	Data Type	Default	Is Output
@IN_ID	int		

Uses:**Table dbo.Departments**

DP_Manager

Table dbo.Instructors

IN_ID

Procedure dbo.Delete_Instructor_Course

Parameter	Data Type	Default	Is Output
@CR_ID	int		
@IN_ID	int		

Uses:**Table dbo.Courses**

CR_ID

Table dbo.Instructors

IN_ID

Procedure dbo.Delete_Login_Data

Parameter	Data Type	Default	Is Output
@Username	varchar(50)		

Uses:**Table dbo.Login_Data**

Username

Procedure dbo.Delete_Question

Parameter	Data Type	Default	Is Output
@QS_ID	int		

Uses:**Table dbo.CR_EX_QS**

QS_ID

Table dbo.Questions

QS_ID

Procedure dbo.Delete_ST_Courses

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@CR_ID	int		

Procedure dbo.Delete_ST_EX_Answers

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@EX_ID	int		
@QS_ID	int		
@Answer	varchar(max)		

Procedure dbo.Delete_Student

Parameter	Data Type	Default	Is Output
@ST_ID	int		

Uses:**Table dbo.Students**

ST_ID

Procedure dbo.Delete_Topic

Parameter	Data Type	Default	Is Output
@TP_ID	int		
@CR_ID	int		

Uses:**Table dbo.Topics**CR_ID
TP_ID**Procedure dbo.Get_Course_Topics**

Parameter	Data Type	Default	Is Output
@CR_ID	int		

Result:

Column	Data Type	Nullable
CR_Name	varchar(50)	
TP_Name	varchar(100)	

Uses:**Table dbo.Courses**CR_ID
CR_Name**Table dbo.Topics**CR_ID
TP_Name**Procedure dbo.Get_Exam_Questions**

Parameter	Data Type	Default	Is Output
@EX_ID	int		

Result:

Column	Data Type	Nullable
EX_ID	int	
QS_Value	varchar(max)	X

Uses:**Table dbo.CR_EX_QS**EX_ID
QS_ID

Table dbo.Exams

EX_ID

Table dbo.QuestionsQS_ID
QS_Value**Procedure dbo.Get_Instructor_Courses**

Parameter	Data Type	Default	Is Output
@IN_ID	int		

Result:

Column	Data Type	Nullable
IN_Name	varchar(101)	
CR_Name	varchar(50)	
STUDENTS_NUMBER	int	X

Uses:**Table dbo.Courses**CR_ID
CR_Name**Table dbo.IN_ST_CR**CR_ID
IN_ID
ST_ID**Table dbo.Instructors**IN_ID
IN_Name**Procedure dbo.Get_Student_Answers**

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@EX_ID	int		

Result:

Column	Data Type	Nullable
ST_Name	varchar(101)	
QS_Value	varchar(max)	X
Answer	varchar(max)	X

Uses:**Table dbo.Exams**

EX_ID

Table dbo.QuestionsQS_ID
QS_Value

Table dbo.Students

ST_ID
ST_Name

Procedure dbo.Get_Student_Grades

Parameter	Data Type	Default	Is Output
@ST_ID	int		

Result:

Column	Data Type	Nullable
ST_Name	varchar(101)	
CR_Name	varchar(50)	
Grade	int	X

Uses:**Table dbo.Courses**

CR_ID
CR_Name

Table dbo.IN_ST_CR

CR_ID
Grade
ST_ID

Table dbo.Students

ST_ID
ST_Name

Procedure dbo.Get_Students_By_Department

Parameter	Data Type	Default	Is Output
@DP_ID	int		

Result:

Column	Data Type	Nullable
ST_ID	int	
ST_Fname	varchar(50)	
ST_Lname	varchar(50)	
ST_Name	varchar(101)	
ST_Bdate	date	X
ST_Age	int	X
ST_Phone	varchar(50)	X
ST_Salary	money	X
ST_Street	varchar(50)	X
ST_City	varchar(50)	X
ST_Country	varchar(50)	X
ST_JoinDate	date	
DP_ID	int	
DP_Name	varchar(50)	

Uses:

Table dbo.Departments

DP_ID
DP_Name

Table dbo.Students

DP_ID
ST_Age
ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_JoinDate
ST_Lname
ST_Name
ST_Phone
ST_Salary
ST_Street

Procedure dbo.Insert_Administrator

Parameter	Data Type	Default	Is Output
@AD_ID	int		
@AD_Fname	varchar(50)		
@AD_Lname	varchar(50)		
@AD_Bdate	date		
@AD_Phone	varchar(50)		
@AD_Salary	money		
@AD_Street	varchar(50)		
@AD_City	varchar(50)		
@AD_Country	varchar(50)		

Uses:**Table dbo.Administrators**

AD_Bdate
AD_City
AD_Country
AD_Fname
AD_ID
AD_Lname
AD_Phone
AD_Salary
AD_Street

Procedure dbo.Insert_Course

Parameter	Data Type	Default	Is Output
@CR_Name	varchar(50)		
@CR_Grade	int		

Uses:**Table dbo.Courses**

CR_ID
CR_Name

Procedure dbo.Insert_Department

Parameter	Data Type	Default	Is Output
@DP_Name	varchar(50)		
@DP_Manager	int		

Uses:

Table **dbo.Departments**

DP_ID
DP_Manager
DP_Name

Procedure dbo.Insert_Exam

Parameter	Data Type	Default	Is Output
@CR_Name	varchar(50)		
@MCQ_Num	int		
@TF_Num	int		

Uses:

Table **dbo.Courses**

CR_ID
CR_Name

Table **dbo.CR_EX_QS**

CR_ID
EX_ID
QS_ID

Table **dbo.Exams**

Table **dbo.Questions**

CR_ID
QS_ID
QS_Type

Procedure dbo.Insert_IN_ST_CR

Parameter	Data Type	Default	Is Output
@IN_ID	int		
@ST_ID	int		
@CR_ID	int		

Uses:

Table **dbo.Courses**

CR_ID

Table **dbo.IN_ST_CR**

CR_ID
IN_ID
ST_ID

Table **dbo.Instructors**

IN_ID

Table dbo.Students

ST_ID

Procedure dbo.Insert_Instructor

Parameter	Data Type	Default	Is Output
@IN_ID	int		
@IN_Fname	varchar(50)		
@IN_Lname	varchar(50)		
@IN_Bdate	date		
@IN_Phone	varchar(50)		
@IN_Salary	money		
@IN_Street	varchar(50)		
@IN_City	varchar(50)		
@IN_Country	varchar(50)		
@DP_ID	int		

Uses:**Table dbo.Instructors**

DP_ID
IN_Bdate
IN_City
IN_Country
IN_Fname
IN_ID
IN_Lname
IN_Phone
IN_Salary
IN_Street

Procedure dbo.Insert_Instructor_Course

Parameter	Data Type	Default	Is Output
@CR_ID	int		
@IN_ID	int		

Uses:**Table dbo.Courses**

CR_ID

Table dbo.Instructors

IN_ID

Procedure dbo.Insert_Login_Data

Parameter	Data Type	Default	Is Output
@Username	varchar(50)		
@Password	varchar(50)		
@Email	varchar(50)		

Uses:**Table dbo.Login_Data**

Email
Password
Username

Procedure dbo.Insert_Question_MCQ

Parameter	Data Type	Default	Is Output
@CR_Name	varchar(50)		
@Question	varchar(max)		
@Choice1	varchar(max)		
@Choice2	varchar(max)		
@Choice3	varchar(max)		
@Choice4	varchar(max)		
@Correct_Answer	varchar(max)		

Uses:

Table dbo.Courses

CR_ID
CR_Name

Table dbo.QS_Choices

Table dbo.Questions

Procedure dbo.Insert_Question_TF

Parameter	Data Type	Default	Is Output
@CR_Name	varchar(50)		
@Question	varchar(max)		
@Correct_Answer	varchar(max)		

Uses:

Table dbo.Courses

CR_ID
CR_Name

Table dbo.Questions

Procedure dbo.Insert_ST_Courses

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@CR_ID	int		
@Grade	int		

Procedure dbo.Insert_ST_EX_Answers

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@EX_ID	int		
@QS_ID	int		
@Answer	varchar(100)		

Uses:**Table dbo.Exams**

EX_ID

Table dbo.Questions

QS_ID

Table dbo.Students

ST_ID

Procedure dbo.Insert_Student

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@ST_Fname	varchar(50)		
@ST_Lname	varchar(50)		
@ST_Bdate	date		
@ST_Phone	varchar(50)		
@ST_Salary	money		
@ST_Street	varchar(50)		
@ST_City	varchar(50)		
@ST_Country	varchar(50)		
@DP_ID	int		

Uses:**Table dbo.Students**

DP_ID
ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_Lname
ST_Phone
ST_Salary
ST_Street

Procedure dbo.Insert_Student_Exam

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@EX_ID	int		

Uses:**Table dbo.CR_EX_QS**

EX_ID
QS_ID

Table dbo.Exams

EX_ID

Table dbo.Students

ST_ID

Procedure dbo.Insert_Topic

Parameter	Data Type	Default	Is Output
@TP_Name	varchar(50)		
@CR_ID	int		

Uses:

Table dbo.Courses

CR_ID

Table dbo.Topics

CR_ID

TP_ID

TP_Name

Procedure dbo.Update_Administrator

Parameter	Data Type	Default	Is Output
@AD_ID	int		
@AD_Fname	varchar(50)		
@AD_Lname	varchar(50)		
@AD_Bdate	date		
@AD_Phone	varchar(50)		
@AD_Salary	money		
@AD_Street	varchar(50)		
@AD_City	varchar(50)		
@AD_Country	varchar(50)		

Uses:

Procedure dbo.Convert_Date

Table dbo.Administrators

AD_Bdate

AD_City

AD_Country

AD_Fname

AD_ID

AD_Lname

AD_Phone

AD_Salary

AD_Street

Procedure dbo.Update_Choice

Parameter	Data Type	Default	Is Output
@QS_ID	int		
@Choice	varchar(max)		

Uses:

Table dbo.QS_Choices

Choice

QS_ID

Procedure dbo.Update_Course

Parameter	Data Type	Default	Is Output
@CR_ID	int		
@CR_Name	varchar(50)		
@CR_Grade	int		

Uses:

Table dbo.Courses

CR_Grade
CR_ID
CR_Name

Procedure dbo.Update_Department

Parameter	Data Type	Default	Is Output
@DP_ID	int		
@DP_Name	varchar(50)		
@DP_Manager	int		

Uses:

Table dbo.Departments

DP_ID
DP_Manager
DP_Name

Procedure dbo.Update_Grade

Parameter	Data Type	Default	Is Output
@IN_ID	int		
@ST_ID	int		
@CR_ID	int		
@Grade	int		

Uses:

Function dbo.CR_Grade

Table dbo.IN_ST_CR

CR_ID
Grade
IN_ID
ST_ID

Procedure dbo.Update_IN_ST_CR

Parameter	Data Type	Default	Is Output
@IN_ID	int		
@ST_ID	int		
@CR_ID	int		
@Date	varchar(50)		

Uses:

Procedure **dbo.Convert_Date**

Table **dbo.IN_ST_CR**

CR_ID
Date
IN_ID
ST_ID

Procedure dbo.Update_Instructor

Parameter	Data Type	Default	Is Output
@IN_ID	int		
@IN_Fname	varchar(50)		
@IN_Lname	varchar(50)		
@IN_Bdate	date		
@IN_Phone	varchar(50)		
@IN_Salary	money		
@IN_Street	varchar(50)		
@IN_City	varchar(50)		
@IN_Country	varchar(50)		
@DP_ID	int		

Uses:

Procedure **dbo.Convert_Date**

Table **dbo.Instructors**

DP_ID
IN_Bdate
IN_City
IN_Country
IN_Fname
IN_ID
IN_Lname
IN_Phone
IN_Salary
IN_Street

Procedure dbo.Update_Login_Data

Parameter	Data Type	Default	Is Output
@Username	varchar(50)		
@Password	varchar(50)		
@Email	varchar(50)		
@Role	varchar(20)		
@Role_ID	int		

Uses:

Table **dbo.Login_Data**

Email
Password
Role
Role_ID
Username

Procedure dbo.Update_Profile

Parameter	Data Type	Default	Is Output
-----------	-----------	---------	-----------

@Role	varchar(50)		
@Role_ID	int		
@F_Name	varchar(50)		
@L_Name	varchar(50)		
@Birthdate	varchar(50)		
@Phone	varchar(50)		
@Street	varchar(50)		
@City	varchar(50)		
@Country	varchar(50)		

Uses:

Procedure **dbo.Convert_Date**

Table **dbo.Administrators**

AD_Bdate
AD_City
AD_Country
AD_Fname
AD_ID
AD_Lname
AD_Phone
AD_Street

Table **dbo.Instructors**

IN_Bdate
IN_City
IN_Country
IN_Fname
IN_ID
IN_Lname
IN_Phone
IN_Street

Table **dbo.Students**

ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_Lname
ST_Phone
ST_Street

Procedure **dbo.Update_Question**

Parameter	Data Type	Default	Is Output
@QS_ID	int		
@QS_Value	varchar(max)		
@QS_Grade	int		

Uses:

Table **dbo.CR_EX_QS**

QS_ID

Table **dbo.Questions**

QS_Grade
QS_ID
QS_Value

Procedure dbo.Update_Question_Choices

Parameter	Data Type	Default	Is Output
@QS_ID	int		
@Choice1	varchar(max)		
@Choice2	varchar(max)		
@Choice3	varchar(max)		
@Choice4	varchar(max)		

Used by:

Procedure dbo.Update_Question_MCQ

Uses:

Table dbo.QS_Choices

QS_ID

Table dbo.Questions

QS_ID

Procedure dbo.Update_Question_MCQ

Parameter	Data Type	Default	Is Output
@QS_ID	int		
@Choice1	varchar(max)		
@Choice2	varchar(max)		
@Choice3	varchar(max)		
@Choice4	varchar(max)		
@Correct_Answer	varchar(max)		

Uses:

Procedure dbo.Update_Question_Choices

Table dbo.CR_EX_QS

QS_ID

Table dbo.Questions

QS_Correct
QS_ID

Procedure dbo.Update_Question_TF

Parameter	Data Type	Default	Is Output
@QS_ID	int		
@Correct_Answer	varchar(max)		

Uses:

Table dbo.CR_EX_QS

QS_ID

Table dbo.Questions

QS_Correct

QS_ID

Procedure dbo.Update_ST_Courses

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@CR_ID	int		
@Grade	int		

Procedure dbo.Update_ST_EX_Answers

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@EX_ID	int		
@QS_ID	int		
@Answer	varchar(max)		

Uses:

Table dbo.ST_EX_Answers

Answer
Date
EX_ID
Finished
QS_ID
ST_ID

Procedure dbo.Update_Student

Parameter	Data Type	Default	Is Output
@ST_ID	int		
@ST_Fname	varchar(50)		
@ST_Lname	varchar(50)		
@ST_Bdate	date		
@ST_Phone	varchar(50)		
@ST_Salary	money		
@ST_Street	varchar(50)		
@ST_City	varchar(50)		
@ST_Country	varchar(50)		
@DP_ID	int		

Uses:

Procedure dbo.Convert_Date

Table dbo.Students

DP_ID
ST_Bdate
ST_City
ST_Country
ST_Fname
ST_ID
ST_Lname
ST_Phone
ST_Salary
ST_Street

Procedure dbo.Update_Topic

Parameter	Data Type	Default	Is Output
@TP_ID	int		
@TP_Name	varchar(50)		
@CR_ID	int		

Uses:

Table dbo.Topics

CR_ID
TP_ID
TP_Name

Functions:

Scalar Function dbo.CR_Grade

Parameter	Data Type	Default
@CR_ID	int	

Result:

Data Type	Nullable
int	X

Used by:

Constraint **dbo.Check_Grade** on **dbo.IN_ST_CR**

Procedure **dbo.Update_Grade**

Uses:

Table **dbo.Courses**

CR_Grade
CR_ID