

student table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
P	Student_ID	Integer	NNNN	6	Unique number id for all students	19
	Student_name	Varchar		50	name of the student	Fatima
F	Dep_id	Integer	NNNN	6	each student should have a department	400

department table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
P	Department_ID	Integer	NNNN	6	id for all department	400
	Department_name	Varchar		50	name of the department	AI

Exam Table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
P	Exam_ID	integer	NNNN	6	Unique number id for all exam	3
F	Course_ID	integer	NNNN	6		1

Course table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
P	Course_ID	integer	NNNN	6	Unique number id for all course	3
	Course_Name	Varchar		50	name of the course	C#
F	Instructor_ID	integer	NNNN	6	course table should know the instructor id	3
F	Department_ID	integer	NNNN	6		200

instructor table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
P	Instructor_ID	integer	NNNN	6	Unique number id for all instructor	8
	Instructor_name	varchar		50	name for each instructor	saleh
F	Department_ID	integer	NNNN	6	Unique number id for all department foreign key	400

question table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
P	Question_ID	integer	NNNN	6	Unique number id for all question	8
	Question_text	varchar		3	the question that the student should answer	mcq
	Question_type	varchar		200	type of question if it is mcq or true or false	mcq
	option_a	varchar		200	option 1 for the question	C# is designed for..
	option_b	varchar		200	option 2 for the question	C# was developed
	option_c	varchar		200	option 3 for the question	C# is a modern...
	option_d	varchar		200	option 4 for the question	All of above
	model_answer	varchar		1	the answer for each qusetion	D
F	Course_ID	integer	NNNN	6	the number of the course for each exam	1

Topic table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
P	Topic_ID	integer	NNNN	6	Unique number id for all topic	22
	Topic_Name	varchar		50	name for each topic	data types
F	Course_ID	integer	NNNN	6	the number of the course for each exam	3

Exam_has_questions table

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
F	Exam_ID	integer	NNNN	6	composite key	1
F	Question_ID	integer	NNNN	6		38

Student_answer_question

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
F	Student_ID	integer	NNNN	6	composite key	1
F	Question_ID	integer	NNNN	6	composite key	38
F	Exam_ID	integer	NNNN	6	Foreign key	1
	answer	varchar		1		T

student_takes_course

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
F	Student_ID	integer	NNNN	6	composite key	13
F	Course_ID	integer	NNNN	6	composite key	7

student_takes_exam

P/F	Field Name	Data Type	Data format	Field Size	Description	Example
F	Student_ID	integer	NNNN	6	composite key	1
F	Exam_ID	integer	NNNN	6	composite key	1
	Grade	integer	NNNN	6		4

Stored Procedure

ID	Name	Input	Input Description	Description
1	Course_name_instructorId_deptId_Update	crs_id int	Course Id	update the department id , instructor id and course name
		crs_name varchar(50)	Course Name	
		Instructor_id int	Instructor Id	
		dept_id int	Department Id	
2	delete_course_proc	courseId	-	use for delete course name if is valid
		Referrrrer	For Tracing Error Location	
3	delete_department_proc	DeptId int	-	use for delete department id if is valid
		Referrer varchar(max)	-	
4	delete_exam_has_questions_proc	ExamId	Exam Id	use for delete exam id and question id if is valid
		questionID	Question Id	
		referrer	-	
5	delete_exam_proc	ExamId	-	use for delete exam id if is valid
		referrer	-	
6	delete_instructor_proc	instructorId	-	use for delete instructor id if is valid
		referrer	-	
7	delete_question_proc	questionID	-	use to delete instructor id if is valid
		referrer	-	
8	delete_student_answer_question_proc	studentId	Student Id	use for delete student id and exam id if is valid
		ExamID	-	
		QuestionID	-	
		referrer	-	
9	delete_student_proc	studentId	-	delete student id
		referrer	-	
10	delete_student_takes_course_proc	studentid	-	delete student id and course id
		courseId	-	
		referrer	-	
11	delete_student_takes_exam_proc	studentId	-	use to delete exam id and student id from student take exam table
		ExamID	-	
		referrer	-	
12	delete_topic_proc	topicId	Topic Id	delete the topic id from topic table
		referrer	-	
13	Department_Name_Update	Dep_Id int	-	update the department name
		dep_name	Department Name	
14	ErrorLogInsert	affectedTable	Table Where Error Occurred	if there is an error its throw an exeption to handle it
		referrer	-	
15	Exam_courseNum_Update	Exam_id	-	update the exam id and number
		Course_Id	-	
16	ExamCorrection	ExamNum	-	correct the answer of student exam if the answer is correct or wrong
		StdID	-	
17	generate_exam	course	Course Id	generate an exam for the student randomly
		mcq	Number of MCQ questions	
		tf	Number of T/F questions	
18	Get_Course_Topics_Report	crs_Id	-	report to select coursee name and topic name from both tables
19	get_exam_questions_proc	referrer	-	select the question table
		ExamId	-	

Stored Procedure

20	get_exam_with_stu_answer_proc	referrer	-	join table student and question table and select them
		ExamId	-	
		studentId	-	
21	Get_Instructor_Course_Report	ins_id	-	select student id as a foreign key from course table and the count of student that instructor have
22	Get_Student_Department	Dept_ID	-	select student id and name that join a department
23	Get_Student_Grade_Report	std_id	-	select in one table the grade for each tudent and his name , id and the course name
24	Insert_Course	id	-	insert a new values in course table if there is no value for this id
		name	Course Name	
		dept	-	
		instruc	-	
25	Insert_Depart	id	-	insert a new value in department table if its not have the same id
		name	Department Name	
26	Insert_Exam	id	-	insert a new id for exam and course if there is an id
		course	Course Id	
27	Insert_ExQues	exam	-	insert a new value in table exam has question
		question	-	
28	Insert_Instrc	id	-	insert a new value in instructor table if its not a duplicate id
		name	Instructor Name	
		dept	Department Id	
29	Insert_Question	id	-	insert a new valuesin table question
		qtext	Question Text	
		qtype	Question Type (MCQ , T/F)	
		op1	Option 1	
		op2	Option 2	
		op3	Option 3	
		op4	Option 4	
		model	Model Answer	
30	Insert_StuCourse	student	-	adding a new values for table Student_takes_course If its valid
		course	-	
31	Insert_Student	id	-	adding a new row to student table
		name	Student Name	
		dept	-	
32	Insert_StuExam	student	-	adding a new row to Student_takes_exam
		exam	-	
		grade	Student Grade	
33	Insert_StuQuestion	student	-	adding a new row to Student_answer_question table if its not exists
		question	-	
		exam	-	
		answer	-	
34	Insert_Topic	name	-	adding a new row to topic table
		course	-	

Stored Procedure

35	Instructor_name__deptId_Update	instructor_id	-	update instructor name and his new department
		ins_name	-	
		instructor_dept	-	
36	Question_ModelAnswer_Update	q_id	-	update the model answer in question table
		q_ans	-	
37	sel_Course	id	-	select course table
	sel_exam	id	-	select exam table
38	sel_stucourse	id	-	select student take course table
		id2	-	
39	sel_studanswer	studentid	-	select Student_answer_question table
		question id	-	
		Examid	-	
40	sel_stuexam	id	Student Id	select table Student_takes_exam
		id2	Exam Id	
41	select_Dept	id	-	select department table
42	select_instu	id	-	select instructor table
43	select_quest	id	-	select question table
44	select_student	id	-	select student table
45	select_Topic	id	-	select topic table
46	selexqu	id	Exam Id	select exam has question
		id2	Question Id	
47	Student_AnswerID_Update	student_id	-	update Student_answer_question table
		question_id	-	
		exam_id	-	
		Answer	-	
48	Student_Course_Update	student_id	-	update Student_takes_course
		course_id	-	
49	Student_grade_Update	student_id	-	update Student_Takes_Exam
		exam_id	-	
		stud_grade	-	
50	Student_Question_Update	Exam_id	-	update Exam_has_questions
		Question_id	-	
51	Student_Update	std_id	-	update student table
		std_name	-	
		depart_id	-	
52	Topic_name_courseId_Update	top_id	-	update Topic
		top_name	-	
		topic_course_id	-	