

# Tables

## Table:Course

Name in D.B	Courses
Description	This table will have all the details of the “Course” entity

Field Name	Data Type	Description	Constraints
Id	INT	<ul style="list-style-type: none"><li>• Course ID</li><li>• Primary key (PK) of the table</li></ul>	Not null
Title	Varchar(50)		null

## Table: Departments

Name in D.B	Departments
Description	This table will have all the details of the “Department ” entity

Field Name	Data Type	Description	Constraints
Id	INT	<ul style="list-style-type: none"><li>• Department ID</li><li>• Primary key (PK) of the table</li></ul>	Not null
DeptName	Varchar(50)	Department’s name	Accept null value

## Table:Choices

Name in D.B	Choices
Description	This table will have all the details of the “Course” entity

Field Name	Data Type	Description	Constraints
Ch_Id	INT	<ul style="list-style-type: none"><li>• Course ID</li><li>• Primary key (PK) of the table</li></ul>	Not null
Ch_Title	Varchar(50)		null

Q_ID	INT	Foreign key (FK) for Question Table	Not NULL
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## Table:Exams

Name in D.B	Exams
Description	This table will have all the details of the “ Exams ” entity

Field Name	Data Type	Description	Constraints
Ex_Id	INT	<ul style="list-style-type: none"> <li>Exams ID</li> <li>Primary key (PK) of the table</li> </ul>	Not null
Ex_Name	Varchar(50)		null
Ex_Marks	INT	Foreign key (FK) for Question Table	Not NULL
CrsID	INT	Foreign Key (FK) for the Courses Table	Not Null

## Table:Questions

Name in D.B	Questions
Description	This table will have all the details of the “ Questions ” entity

Field Name	Data Type	Description	Constraints
Q_ID	INT	<ul style="list-style-type: none"> <li>Questions ID</li> <li>Primary key (PK) of the table</li> </ul>	Not null
QuesTitle	Varchar(50)	Body of the question	Not Null
type	Varchar(50)	Type of the question	Not NULL
AnsTitle	Varchar(50)	The modal answer	Not null
AnsID	Int	ID of the modal choice	Not null
CrsID	Int	Foreign key (FK) of the course that the question belongs to	Not null
Q_Mark	Int	The grade of this specific question	Not null

## Table:Instructors

Field Name	Data Type	Description	Constraints
Id	INT	<ul style="list-style-type: none"> <li>• Instructor ID</li> <li>• Primary key (PK) of the table</li> </ul>	Not null
Name	nvarchar(MAX)		null

Field Name	Data Type	Description	Constraints
InstructorId	INT	<ul style="list-style-type: none"> <li>• InstructorId</li> <li>• composite Primary key (PK) of the table with CourseId</li> <li>Foreign key refer to table 'Instructor'</li> </ul>	Not Null
InstructorId	INT	<ul style="list-style-type: none"> <li>• Instructor ID</li> <li>• composite Primary key (PK) of the table with DepartmentId</li> <li>Foreign key refer to table 'Instructor'</li> </ul>	Not Null

## Table:Topics

Name in D.B	Topics → Weak Entity
Description	This table will have all the details of the “ Topics ” entity

Field Name	Data Type	Description	Constraints
ID	INT	<ul style="list-style-type: none"> <li>• Questions ID</li> <li>• composite Primary key (PK) of the table</li> </ul>	Not null
Title	Varchar(50)	Name of the topic	Not Null
CourseID	Varchar(50)	<ul style="list-style-type: none"> <li>• Course ID</li> <li>• composite Primary key (PK) of the table</li> <li>Foreign key from table Courses</li> </ul>	Not NULL

## Table:Students

Name in D.B	Students
Description	This table will have all the details of the “ Students ” entity

Field Name	Data Type	Description	Constraints
ID	INT	<ul style="list-style-type: none"> <li>• ID</li> <li>• Primary key (PK) of the table</li> </ul>	Not null
FName	Varchar(50)	First name of the student	Not Null
Lname	Varchar(50)	Last name of the student	Not NULL
DOB	Date	Birthdate of the student	Not null
Address	Varchar(50)	Address of the student	Null
Age	Int	Age of the student	Not null
DeptID	Int	Foreign key that represents the departments table	Not null
Dept_name	Varchar(50)	Department name	Not null

## Relationships

**Table: Department & Course**

Name in D.B	dept_Crs
Description	This table will have all the details of the “Department & Course” relationship.

Field Name	Data Type	Description	Constraints
ID	INT	Primary key (PK) of the table	Not Null
CrsID	INT	Refers to “Id” column of “Courses” table	Not Null
DeptID	INT	Refers to “Id” column of “ Departments ” table	Not Null
Ins_CourseId	INT	Refers to “Id” column of “ins_Courses” table	Not Null

**Table: Ins Departments**

Name in D.B	Ins_Departments
Description	This table will have all the details of the relation between “Instructor ” & Department entity

Field Name	Data Type	Description	Constraints
<b>InstructorId</b>	INT	<ul style="list-style-type: none"> <li>• Instructor ID</li> <li>• composite Primary key (PK) of the table with DepartmentId</li> <li>• Foreign key refer to table 'Instructor'</li> </ul>	Not null
<b>DepartmentId</b>	INT	<ul style="list-style-type: none"> <li>• DepartmentId</li> <li>• composite Primary key (PK) of the table with InstructorId</li> <li>Foreign key refer to table 'Department'</li> </ul>	Not null

### Table: Instructor & Courses

Name in D.B	Ins_Course
Description	This table will have all the details of the "Instructor & Course" relationship.

Field Name	Data Type	Description	Constraints
<b>InstructorId</b>	INT	<ul style="list-style-type: none"> <li>• InstructorId</li> <li>• composite Primary key (PK) of the table with CourseId</li> <li>Foreign key refer to table 'Instructor'</li> </ul>	Not Null
<b>InstructorId</b>	INT	<ul style="list-style-type: none"> <li>• Instructor ID</li> <li>• composite Primary key (PK) of the table with DepartmentId</li> <li>Foreign key refer to table 'Instructor'</li> </ul>	Not Null

### Table: Exams & Questions

Name in D.B	Exam_Question_Crs
Description	This table will have all the details of the "Exams & Question" relationship.

Field Name	Data Type	Description	Constraints
<b>Ex_ID</b>	INT	<ul style="list-style-type: none"> <li>• Exam ID</li> <li>• composite Primary key (PK) of the table with</li> </ul>	Not Null

C_ID	INT	Course Id Foreign key refer to table 'Courses'	Not NULL
Q_ID	INT	<ul style="list-style-type: none"> <li>• Questions ID</li> <li>• composite Primary key (PK) of the table with DepartmentId</li> </ul> Foreign key refer to table 'Questions'	Not Null

### **Table: Student & Answers**

Name in D.B	Stude_Answers
Description	This table will have all the details of the “ Student & Answers ” relationship.

Field Name	Data Type	Description	Constraints
Stud_id	INT	<ul style="list-style-type: none"> <li>• Student ID</li> <li>• composite Primary key (PK) of the table</li> </ul> Foreign key refer to table 'Students'	Not Null
Ex_id	Int	<ul style="list-style-type: none"> <li>• Exam ID</li> <li>• composite Primary key (PK)</li> </ul>	
CH_ID	int	<ul style="list-style-type: none"> <li>• Choice ID</li> <li>• composite Primary key (PK) of the table</li> </ul> Foreign key refer to table 'Choices'	
Q_ID	INT	<ul style="list-style-type: none"> <li>• Questions ID</li> <li>• composite Primary key (PK) of the table</li> </ul> Foreign key refer to table 'Questions'	Not Null

### **Table: Student & Exams**

Name in D.B	Student_Exams
Description	This table will have all the details of the “ Student & Exams ” relationship.

Field Name	Data Type	Description	Constraints
St_id	INT	<ul style="list-style-type: none"> <li>• Student ID</li> <li>• composite Primary key (PK) of the table</li> </ul> Foreign key refer to table 'Students'	Not Null
Ex_id	INT	<ul style="list-style-type: none"> <li>• Exam ID</li> <li>• composite Primary key (PK)</li> </ul>	Not Null

## Table: Student & Courses

Name in D.B	Stud_Crs
Description	This table will have all the details of the “ Student & Courses ” relationship.

Field Name	Data Type	Description	Constraints
Student_Id	INT	<ul style="list-style-type: none"><li>• Student ID</li><li>• composite Primary key (PK) of the table</li></ul> Foreign key refer to table 'Students`	Not Null
Course_Id	INT	<ul style="list-style-type: none"><li>• Course ID</li><li>• composite Primary key (PK)</li></ul>	Not Null
Grade	INT	Grade of the student	null