**Project Database**

**Project Name**

**Management Examination System**

**Project Summary**

**Developer**

**Michael malak**

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**Database files**

1. **Primary file name =>** Name=exam\_sys\_Primary.mdf
2. **File groups** 
   1. FileGroup exam\_S\_F\_G\_1
      1. Name=group\_one\_FG.ndf
   2. FileGroup exam\_S\_F\_G\_2
      1. Name=group\_two\_FG.ndf
   3. FileGroup exam\_S\_F\_G\_3
      1. Name=group\_three\_FG.ndf
3. Log file => Name=exam\_sys\_Log.ldf

**Table in Database**

**1-instructor :**

this table store in file group => exam\_S\_F\_G\_1

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| instruct\_id (pk) | char(14) primary key |
| instruct\_name | nvarchar(20) not null |
| instruct\_birthDate | date not null |
| instruct\_phone | char(11) not null |
| instruct\_city | nvarchar(20) not null |
| instruct\_street | nvarchar(20) |

**2-class :**

this table store in file group => exam\_S\_F\_G\_1

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| Class\_id (pk) | int primary key identity(1,1), |
| class\_name | nvarchar(20) |

**3-course :**

this table store in file group => exam\_S\_F\_G\_1

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| Course\_id (pk) | int primary key identity(1,1), |
| Course\_name | nvarchar(10) |
| Course\_description | nvarchar(50) |
| Course\_maxDegree | int not null |
| Course\_minDegree | int not null |

**4-exam :**

this table store in file group => exam\_S\_F\_G\_2

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| exam\_id (pk) | int primary key identity(1,1) |
| exam\_startTime | time not null |
| exam\_endTime | time not null |
| exam\_type | nvarchar(20) not null |
| exam\_date | date not null |
| exam\_total\_degree | int not null |
| course\_id (fk) | int not null |

**5-student :**

this table store in file group => exam\_S\_F\_G\_2

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| student\_id (pk) | int primary key |
| student\_name | nvarchar(20) not null |
| student\_email | nvarchar(30) |
| student\_birthDate | date not null |
| student\_phone | char(11) not null |
| student\_city | nvarchar(20) not null |
| student\_street | nvarchar(20) |
| class\_id (fk) | int |

**6-question\_pool :**

this table store in file group => exam\_S\_F\_G\_2

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| question\_id (pk) | int primary key identity(1,1) |
| question\_text | nvarchar(60) not null |
| question\_type | nvarchar(20) not null |
| model\_answer | nvarchar(60) not null |
| course\_id (fk) | int not null |
| instruct\_id (fk) | char(14) not null |

**7-multi\_choice :**

this table store in file group => primary file

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| choise\_text (pk) | nvarchar(20) not null |
| question\_id (fk,pk) | int |

**8-course\_student :**

this table store in file group => primary file

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| course\_id (fk,pk) | int not null |
| student\_id (fk,pk) | int not null |
| final\_result | Int |

**9-course\_exam :**

this table store in file group => primary file

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| exam\_id (fk,pk) | int not null |
| question\_id (fk,pk) | int not null |
| question\_degree | Int |

**10- instructor\_student\_exam :**

this table store in file group => primary file

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| student\_id (pk.fk) | int |
| exam\_id (pk,fk) | int |
| instruct\_id (pk,fk) | char(14) |
| exam\_result | int |

**11- class\_instructor\_course :**

this table store in file group => primary file

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| class\_id (pk.fk) | int |
| course\_id (pk,fk) | int |
| instruct\_id (pk,fk) | char(14) |
| Year | date |

**12- student\_question\_exam :**

this table store in file group => primary file

|  |  |
| --- | --- |
| **Name Column** | **Data Type** |
| student\_id (pk.fk) | int |
| question\_id (pk,fk) | int |
| exam\_id (pk,fk) | int |
| Student\_answer | nvarchar(50) |

**Rules**

1. personal\_identity as len(@id) = 14

bind this rule on column instructor.instruct\_id;

**view**

1. **Instrucotr\_Class\_CourseInfo**

* **([ID],[Instrucotr Name],[Class Name],[Course Name])**
* This view used to show instructor and his courses and class

1. **Student\_Exam\_Rsult**

* **([ID],[Student Name],[Course Name],[Exam Type],[Exam Date] ,[Exam Result])**
* This view used to show Student Exam Result For every course

1. **Course\_Questions\_Pool**

* **([Ins\_ID] , [Instrucotr Name] , [Course Name] , [Question Type] , [Question] , [Model Answer])**
* This view used to show questions For Every Course in Question pool

1. **StudentCoursesInfo**

* **(ID , [Student Name] , [Course Name] , [Course Max Degree] , [Course MIn Degree] )**
* This view used to To show Student Name and his Courses Data

1. **Student\_courseInfo**

* **([ID] , [Student Name] , [Course ID] , [Course Name] , [Course Final Result])**
* This view used to show Student Info For every course

1. **InsTructorDeatils**

* **([INS ID] , [Instructor Name],[Phone] , [Address] , [Course])**
* This view used to show Instructor data

1. **Student\_info**

* **([Student Name] , [Student Address] , [Email] , [Phone] , [Class Name])**
* This view used to show student data

1. **Student\_info\_course**

* **([Student Name],[Course Name],[Education Year])**
* This view used to Display Student Name From ==>student table Course Name From ==>Course table EducationYear From ==>class\_instructor\_course table

1. **Course\_info**

* **([Instructor Name],[Course Name],[Course Description])**
* This view used to Display Instructor Name From ==>Instructor table Course Name From==>Class table Course Description From ==>Class table

1. **Exam\_Content\_Details**

* **([Exam ID] , [Exam Type] , [Exam Date] , [Exam Questions],[Question Type] , [Question Degree] , [Model Answer])**
* This view used to show Every Exam And his questions

1. **Student\_Exams**

* **([Student ID] ,[Student Name] , [Exam ID] , [Exam Type] , [Course Name] , [Questions] , [Student Answer] , [Model Answer])**
* This view used to show Exam Detail For every Student

12-trigers

Create audit admin tables for all tables database for insert , update ,delete in schema audit\_admin

Triggers-name:-

1-trig\_class

2-trig\_class\_instructor\_course

3-trig\_course

4-trig\_course\_student

5-trig\_instructor

6-trig\_question\_exam

7-trig\_student\_question\_exam

8-trig\_instructor\_student\_exam

9-trig\_exam

13-Trigger to allow instructor to update and insert in question pool on his course only

Trigger name :- trig\_inst\_ques

14-Trigger to prevent instructor to delete any question in question pool

Trigger name :- trig\_inst\_ques\_delete