  


**Examination System   
Documentation**

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Table of contents

[ExamSystemDocumentation](#_bookmark0)

1. [Tables](#_bookmark1)
   1. [Table: Admin](#_bookmark2)
   2. [Table: Branch](#_bookmark3)
   3. [Table: Branch\_Has\_Track](#_bookmark4)
   4. [Table: Course](#_bookmark5)
   5. [Table: Exam](#_bookmark6)
   6. [Table: Exam\_Has\_Questions](#_bookmark7)
   7. [Table: Instructor](#_bookmark8)
   8. [Table: Instructor\_Teach\_Course](#_bookmark9)
   9. [Table: Questions](#_bookmark10)
   10. [Table: Student](#_bookmark11)
   11. [Table: Student\_Attend\_Exam](#_bookmark12)
   12. [Table: Student\_Register\_Course](#_bookmark13)
   13. [Table: Student\_Take\_Exam\_Has\_Questions](#_bookmark14)
   14. [Table: Topic](#_bookmark15)
   15. [Table: Track](#_bookmark16)
   16. [Table: Track\_Assign\_Instructor](#_bookmark17)
   17. [Table: Track\_Has\_Course](#_bookmark18)
2. [Views](#_bookmark19)
   1. [View: branchAssignTrack](#_bookmark20)
   2. [View: branchAssignTrackView](#_bookmark21)
   3. [View: branchView](#_bookmark22)
   4. [View: courseView](#_bookmark23)
   5. [View: instructorTeachCourse](#_bookmark24)
   6. [View: instructorView](#_bookmark25)
   7. [View: studentAssignCourse](#_bookmark26)
   8. [View: studentDetails](#_bookmark27)
   9. [View: studentView](#_bookmark28)
   10. [View: topicsDetails](#_bookmark29)
   11. [View: Track\_Has\_CourseView](#_bookmark30)
   12. [View: trackView](#_bookmark31)
3. [Procedures](#_bookmark32)
   1. [Procedure: assignCourseToTrack](#_bookmark33)
   2. [Procedure: AssignInstructorToCourse](#_bookmark34)
   3. [Procedure: assignStudentToCourse](#_bookmark35)
   4. [Procedure: assignTrackToBranch](#_bookmark36)
   5. [Procedure: check\_branch](#_bookmark37)
   6. [Procedure: check\_instructor](#_bookmark38)
   7. [Procedure: check\_topic](#_bookmark39)
   8. [Procedure: course\_insights](#_bookmark40)
   9. [Procedure: dmlQuerries](#_bookmark41)
   10. [Procedure: Exam\_Correction](#_bookmark42)
   11. [Procedure: generat1eexam](#_bookmark43)
   12. [Procedure: generateexam](#_bookmark44)
   13. [Procedure: Get\_Exam\_Details](#_bookmark45)
   14. [Procedure: get\_id](#_bookmark46)
   15. [Procedure: get\_name](#_bookmark47)
   16. [Procedure: get\_password](#_bookmark48)
   17. [Procedure: GetCourseTopics](#_bookmark49)
   18. [Procedure: GetExamQuestionsAndChoices](#_bookmark50)
   19. [Procedure: GetInsCourse](#_bookmark51)
   20. [Procedure: GetInstructorCourseQuestions](#_bookmark52)
   21. [Procedure: GetInstructorIdByName](#_bookmark53)
   22. [Procedure: GetInstructorStudentGrades](#_bookmark54)
   23. [Procedure: GetLastInsertedTrackId](#_bookmark55)
   24. [Procedure: GeTopicIdByName](#_bookmark56)
   25. [Procedure: GetRandomExamQuestions](#_bookmark57)
   26. [Procedure: GetStudentExamReport](#_bookmark58)
   27. [Procedure: GetStudentGrades](#_bookmark59)
   28. [Procedure: GetStudentGradesStatus](#_bookmark60)
   29. [Procedure: GetStudentInfoByDepartment](#_bookmark61)
   30. [Procedure: GetStudentInfoByTracks](#_bookmark62)
   31. [Procedure: GetStudentInfoInTracks](#_bookmark63)
   32. [Procedure: Ins\_Course](#_bookmark64)
   33. [Procedure: Insert\_Student\_Answers](#_bookmark65)
   34. [Procedure: InsertTrack](#_bookmark66)
   35. [Procedure: instructorInfo](#_bookmark67)
   36. [Procedure: isStudTakeExam](#_bookmark68)
   37. [Procedure: login\_check](#_bookmark69)
   38. [Procedure: search](#_bookmark70)
   39. [Procedure: stud\_Course](#_bookmark71)
   40. [Procedure: StudentInfo](#_bookmark72)
   41. [Procedure: UpdateExamDateDaily](#_bookmark73)

**1. Tables**

**1.1.** [Table: Admin](#_bookmark2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | id | int | **Identity / Auto increment** |
|  |  | admin\_name | varchar(MAX) |  |
|  |  | admin\_email | nvarchar(255) | **Nullable** |
|  |  | admin\_password | varchar(MAX) |  |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Branch](#_bookmark3) | **Admin**id = Branchadmin\_id\_FK | FK Branch admin\_id 45BE5BA9 |
|  | [Branch](#_bookmark3) | **Admin**id = Branchadmin\_id\_FK | FK Branch admin\_id 68487DD7 |
|  | [Course](#_bookmark5) | **Admin**id = Courseadmin\_id\_FK | FK Course admin\_id 7FEAFD3E |
|  | [Instructor](#_bookmark8) | **Admin**id = Instructoradmin\_id\_FK | FK Instructo admin 3D5E1FD2 |
|  | [Student](#_bookmark11) | **Admin**id = Studentadmin\_id\_FK | FK Student admin\_i 44FF419A |
|  | [Track](#_bookmark16) | **Admin**id = Trackadmin\_id\_FK | FK Track admin\_id 46B27FE2 |
|  | [Track](#_bookmark16) | **Admin**id = Trackadmin\_id\_FK | FK Track admin\_id 7C4F7684 |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | id | PK Admin 3213E83FAE44744D |
|  | admin\_email | constraint\_aemail |

**1.2. Table: Branch**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | branch\_id | int | **Identity / Auto increment** |
|  |  | branch\_name | varchar(MAX) | **Nullable** |
|  |  | admin\_id\_FK | int | **Nullable References**: Admin |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Admin](#_bookmark2) | **Branch**admin\_id\_FK = Adminid | FK Branch admin\_id 45BE5BA9 |
|  | [Admin](#_bookmark2) | **Branch**admin\_id\_FK = Adminid | FK Branch admin\_id 68487DD7 |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Branch\_Has\_Track](#_bookmark4) | **Branch**branch\_id = Branch\_Has\_Trackbranch\_id\_FK | FK Branch\_Ha branc 59FA5E80 |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | branch\_id | PK Branch E55E37DE154B2CBA |

**1.3. Table: Branch\_Has\_Track**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | track\_id\_FK | int | **References**: Track |
|  |  | branch\_id\_FK | int | **References**: Branch |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Branch](#_bookmark3) | **Branch\_Has\_Track**branch\_id\_FK  = Branchbranch\_id | FK Branch\_Ha branc 59FA5E80 |
|  | [Track](#_bookmark16) | **Branch\_Has\_Track**track\_id\_FK = Tracktrack\_id | FK Branch\_Ha track 59063A47 |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | track\_id\_FK, branch\_id\_FK | PK Branch\_H 9FE507688E6F7BB4 |

**1.4. Table: Course**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | crs\_id | int | **Identity / Auto increment** |
|  |  | crs\_name | varchar(MAX) |  |
|  |  | admin\_id\_FK | int | **Nullable References**: Admin |
|  |  | topic\_id\_FK | int | **Nullable References**: Topic |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Admin](#_bookmark2) | **Course**admin\_id\_FK = Adminid | FK Course admin\_id 7FEAFD3E |
|  | [Topic](#_bookmark15) | **Course**topic\_id\_FK = Topictopic\_id | fk\_topic |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Exam](#_bookmark6) | **Course**crs\_id = Examcrs\_id\_FK | FK Exam crs\_id\_FK 4CA06362 |
|  | [Instructor\_Teach\_Course](#_bookmark9) | **Course**crs\_id = Instructor\_Teach\_Coursecrs\_id\_ FK | FK Instructo crs\_i 5DCAEF64 |
|  | [Questions](#_bookmark10) | **Course**crs\_id = Questionscrs\_id\_FK | FK Questions crs\_i 4F7CD00D |
|  | [Student\_Register\_Course](#_bookmark13) | **Course**crs\_id = Student\_Register\_Coursecrs\_id\_ FK | FK Student\_R crs\_i 693CA210 |
|  | [Track\_Has\_Course](#_bookmark18) | **Course**crs\_id = Track\_Has\_Coursecrs\_id\_FK | FK Track\_Has crs\_i 619B8048 |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | crs\_id | PK Course ECAF537571814E94 |

**1.6. Table: Exam\_Has\_Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | exam\_id\_FK | int | **References**: Exam |
|  |  | ques\_id\_FK | int | **References**: Questions |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Exam](#_bookmark6) | **Exam\_Has\_Questions**exam\_id\_F K = Examexam\_id | FK Exam\_Has exam 6477ECF3 |
|  | [Questions](#_bookmark10) | **Exam\_Has\_Questions**ques\_id\_FK  = Questionsques\_id | FK Exam\_Has ques 656C112C |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | exam\_id\_FK, ques\_id\_FK | PK Exam\_Has 6661ABB8B28933CE |

**1.7. Table: Instructor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | ins\_id | int | **Identity / Auto increment** |
|  |  | ins\_name | varchar(MAX) |  |
|  |  | ins\_email | nvarchar(255) | **Nullable** |
|  |  | ins\_password | varchar(MAX) | **Default**: 12345 |
|  |  | ins\_phone | varchar(MAX) |  |
|  |  | ins\_salary | int |  |
|  |  | admin\_id\_FK | int | **Nullable References**: Admin |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Admin](#_bookmark2) | **Instructor**admin\_id\_FK = Adminid | FK Instructo admin 3D5E1FD2 |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Instructor\_Teach\_Course](#_bookmark9) | **Instructor**ins\_id = Instructor\_Teach\_Courseins\_id\_ FK | FK Instructo ins\_i 5CD6CB2B |
|  | [Track](#_bookmark16) | **Instructor**ins\_id = Tracktrack\_manager | FK Track ins\_id\_FK 403A8C7D |
|  | [Track\_Assign\_Instructor](#_bookmark17) | **Instructor**ins\_id = Track\_Assign\_Instructorins\_id\_F K | FK Track\_Ass ins\_i 5535A963 |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | ins\_id | PK Instruct 9CB72D20F3D54D58 |
|  | ins\_email | constraint\_name |

**1.8. Table: Instructor\_Teach\_Course**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | ins\_id\_FK | int | **References**: Instructor |
|  |  | crs\_id\_FK | int | **References**: Course |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Course](#_bookmark5) | **Instructor\_Teach\_Course**crs\_id\_ FK = Coursecrs\_id | FK Instructo crs\_i 5DCAEF64 |
|  | [Instructor](#_bookmark8) | **Instructor\_Teach\_Course**ins\_id\_ FK = Instructorins\_id | FK Instructo ins\_i 5CD6CB2B |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | ins\_id\_FK, crs\_id\_FK | PK Instruct 5C0D3DF9C6051A6D |

**1.9. Table: Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | ques\_id | int | **Identity / Auto increment** |
|  |  | ques\_name | varchar(MAX) |  |
|  |  | ques\_type | varchar(MAX) |  |
|  |  | ques\_model\_answer | varchar(MAX) |  |
|  |  | crs\_id\_FK | int | **Nullable References**: Course |
|  |  | choice\_1 | nvarchar(MAX) |  |
|  |  | choice\_2 | nvarchar(MAX) |  |
|  |  | choice\_3 | nvarchar(MAX) | **Nullable** |
|  |  | choice\_4 | nvarchar(MAX) | **Nullable** |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Course](#_bookmark5) | **Questions**crs\_id\_FK = Coursecrs\_id | FK Questions crs\_i 4F7CD00D |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Exam\_Has\_Questions](#_bookmark7) | **Questions**ques\_id = Exam\_Has\_Questionsques\_id\_FK | FK Exam\_Has ques 656C112C |
|  | [Student\_Take\_Exam\_Has\_Que stions](#_bookmark14) | **Questions**ques\_id = Student\_Take\_Exam\_Has\_Questi onsques\_id\_FK | FK Student\_T ques 71D1E811 |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | ques\_id | PK Question 5BF46E9B81F1634C |

**1.10. Table: Student**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | SSN | int |  |
|  |  | stud\_fname | varchar(MAX) |  |
|  |  | stud\_lname | varchar(MAX) |  |
|  |  | stud\_email | nvarchar(255) | **Nullable** |
|  |  | stud\_password | varchar(MAX) | **Default**: 12345 |
|  |  | stud\_phone | varchar(MAX) |  |
|  |  | stud\_address | varchar(MAX) |  |
|  |  | stud\_gender | varchar(MAX) |  |
|  |  | stud\_birthdate | date |  |
|  |  | track\_id\_FK | int | **Nullable References**: Track |
|  |  | admin\_id\_FK | int | **Nullable References**: Admin |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Admin](#_bookmark2) | **Student**admin\_id\_FK = Adminid | FK Student admin\_i 44FF419A |
|  | [Track](#_bookmark16) | **Student**track\_id\_FK = Tracktrack\_id | FK Student track\_i 440B1D61 |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Student\_Attend\_Exam](#_bookmark12) | **Student**SSN = Student\_Attend\_ExamSSN\_FK | FK Student\_A SSN\_F 6C190EBB |
|  | [Student\_Register\_Course](#_bookmark13) | **Student**SSN = Student\_Register\_CourseSSN\_F K | FK Student\_R SSN\_F 68487DD7 |
|  | [Student\_Take\_Exam\_Has\_Que stions](#_bookmark14) | **Student**SSN = Student\_Take\_Exam\_Has\_Questi onsSSN\_FK | FK Student\_T SSN\_F 6FE99F9F |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | SSN | PK Student CA1E8E3D88A109A5 |
|  | stud\_email | constraint\_email |

**1.11. Table: Student\_Attend\_Exam**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | SSN\_FK | int | **References**: Student |
|  |  | exam\_id\_FK | int | **References**: Exam |
|  |  | exam\_grade | int |  |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Exam](#_bookmark6) | **Student\_Attend\_Exam**exam\_id\_F K = Examexam\_id | FK Student\_A exam 6D0D32F4 |
|  | [Student](#_bookmark11) | **Student\_Attend\_Exam**SSN\_FK = StudentSSN | FK Student\_A SSN\_F 6C190EBB |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | SSN\_FK, exam\_id\_FK | PK Student E762641000AAE545 |

**1.12. Table: Student\_Register\_Course**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | SSN\_FK | int | **References**: Student |
|  |  | crs\_id\_FK | int | **References**: Course |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Course](#_bookmark5) | **Student\_Register\_Course**crs\_id\_ FK = Coursecrs\_id | FK Student\_R crs\_i 693CA210 |
|  | [Student](#_bookmark11) | **Student\_Register\_Course**SSN\_F K = StudentSSN | FK Student\_R SSN\_F 68487DD7 |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | SSN\_FK, crs\_id\_FK | PK Student 9A7A8704A90E4293 |

**1.13. Table: Student\_Take\_Exam\_Has\_Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | st\_eid | int | **Identity / Auto increment** |
|  |  | SSN\_FK | int | **Nullable References**: Student |
|  |  | exam\_id\_FK | int | **Nullable References**: Exam |
|  |  | ques\_id\_FK | int | **Nullable**  **References**: Questions |
|  |  | answer | varchar(50) |  |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Exam](#_bookmark6) | **Student\_Take\_Exam\_Has\_Questi ons**exam\_id\_FK = Examexam\_id | FK Student\_T exam 70DDC3D8 |
|  | [Questions](#_bookmark10) | **Student\_Take\_Exam\_Has\_Questi ons**ques\_id\_FK = Questionsques\_id | FK Student\_T ques 71D1E811 |
|  | [Student](#_bookmark11) | **Student\_Take\_Exam\_Has\_Questi ons**SSN\_FK = StudentSSN | FK Student\_T SSN\_F 6FE99F9F |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | st\_eid | PK Student 8215F58851E3F3BE |

**1.14. Table: Topic**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | topic\_id | int | **Identity / Auto increment** |
|  |  | topic\_name | varchar(MAX) |  |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Course](#_bookmark5) | **Topic**topic\_id = Coursetopic\_id\_FK | fk\_topic |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | topic\_id | PK Topic D5DAA3E940F73E1B |

**1.15. Table: Track**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | track\_id | int | **Identity / Auto increment** |
|  |  | track\_name | varchar(MAX) |  |
|  |  | track\_manager | int | **Nullable**  **References**: Instructor |
|  |  | admin\_id\_FK | int | **Nullable References**: Admin |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Admin](#_bookmark2) | **Track**admin\_id\_FK = Adminid | FK Track admin\_id 46B27FE2 |
|  | [Admin](#_bookmark2) | **Track**admin\_id\_FK = Adminid | FK Track admin\_id 7C4F7684 |
|  | [Instructor](#_bookmark8) | **Track**track\_manager = Instructorins\_id | FK Track ins\_id\_FK 403A8C7D |

Linked from

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Branch\_Has\_Track](#_bookmark4) | **Track**track\_id = Branch\_Has\_Tracktrack\_id\_FK | FK Branch\_Ha track 59063A47 |
|  | [Student](#_bookmark11) | **Track**track\_id = Studenttrack\_id\_FK | FK Student track\_i 440B1D61 |
|  | [Track\_Assign\_Instructor](#_bookmark17) | **Track**track\_id = Track\_Assign\_Instructortrack\_id  \_FK | FK Track\_Ass track 5629CD9C |
|  | [Track\_Has\_Course](#_bookmark18) | **Track**track\_id = Track\_Has\_Coursetrack\_id\_FK | FK Track\_Has track 60A75C0F |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | track\_id | PK Track 24ECC82EC0DB8112 |

**1.16. Table: Track\_Assign\_Instructor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | ins\_id\_FK | int | **References**: Instructor |
|  |  | track\_id\_FK | int | **References**: Track |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Instructor](#_bookmark8) | **Track\_Assign\_Instructor**ins\_id\_F K = Instructorins\_id | FK Track\_Ass ins\_i 5535A963 |
|  | [Track](#_bookmark16) | **Track\_Assign\_Instructor**track\_id  \_FK = Tracktrack\_id | FK Track\_Ass track 5629CD9C |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | ins\_id\_FK, track\_id\_FK | PK Track\_As 931C6FD33B883EDD |

**1.17. Table: Track\_Has\_Course**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | track\_id\_FK | int | **References**: Track |
|  |  | crs\_id\_FK | int | **References**: Course |

Links to

|  |  |  |  |
| --- | --- | --- | --- |
|  | Table | Join | Title / Name / Description |
|  | [Course](#_bookmark5) | **Track\_Has\_Course**crs\_id\_FK = Coursecrs\_id | FK Track\_Has crs\_i 619B8048 |
|  | [Track](#_bookmark16) | **Track\_Has\_Course**track\_id\_FK = Tracktrack\_id | FK Track\_Has track 60A75C0F |

Unique keys

|  |  |  |
| --- | --- | --- |
|  | Columns | Name / Description |
|  | track\_id\_FK, crs\_id\_FK | PK Track\_Ha A11FF1CAE5DED143 |

2. Views

* 1. **iew: branchAssignTrack**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Branch\_Name | varchar(MAX) | **Nullable** |
|  |  | Track\_Name | varchar(MAX) |  |
|  |  | Branch\_ID | int |  |
|  |  | Track\_ID | int |  |

**2.2. View: branchAssignTrackView**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Branch\_Name | varchar(MAX) | **Nullable** |
|  |  | Track\_Name | varchar(MAX) |  |
|  |  | Branch\_ID | int |  |
|  |  | Track\_ID | int |  |

* 1. **View: branchView**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Branch ID | int | **Identity / Auto increment** |
|  |  | Branch Name | varchar(MAX) | **Nullable** |

**2.4. View: courseView**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Course ID | int |  |
|  |  | Course Name | varchar(MAX) |  |
|  |  | Topic Name | varchar(MAX) |  |

**2.5. View: instructorTeachCourse**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | ins\_name | varchar(MAX) |  |
|  |  | crs\_name | varchar(MAX) |  |
|  |  | ins\_id | int |  |
|  |  | crs\_id | int |  |

**2.6. View: instructorView**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | ins\_id | int | **Identity / Auto increment** |
|  |  | ins\_name | varchar(MAX) |  |
|  |  | ins\_email | nvarchar(255) | **Nullable** |
|  |  | ins\_phone | varchar(MAX) |  |
|  |  | ins\_salary | int |  |

**2.7. View: studentAssignCourse**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Full\_Name | varchar(MAX) |  |
|  |  | crs\_name | varchar(MAX) |  |
|  |  | SSN | int |  |
|  |  | crs\_id | int |  |

**2.8. View: studentDetails**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | SSN | int |  |
|  |  | Full Name | varchar(MAX) |  |
|  |  | Gender | varchar(MAX) |  |
|  |  | Email | nvarchar(255) | **Nullable** |
|  |  | Phone | varchar(MAX) |  |

**2.9. View: studentView**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | SSN | int |  |
|  |  | stud\_fname | varchar(MAX) |  |
|  |  | stud\_lname | varchar(MAX) |  |
|  |  | stud\_email | nvarchar(255) | **Nullable** |
|  |  | stud\_phone | varchar(MAX) |  |
|  |  | stud\_address | varchar(MAX) |  |
|  |  | stud\_gender | varchar(MAX) |  |
|  |  | stud\_birthdate | date |  |
|  |  | track\_id\_FK | int | **Nullable** |

**2.10. View: topicsDetails**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Topic ID | int | **Identity / Auto increment** |
|  |  | Topic Name | varchar(MAX) |  |

**2.11. View: Track\_Has\_CourseView**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Track Name | varchar(MAX) |  |
|  |  | Course Name | varchar(MAX) |  |

**2.12. View: trackView**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Name | Data type | Description / Attributes |
|  |  | Track ID | int |  |
|  |  | Track Name | varchar(MAX) |  |
|  |  | Track Manager | varchar(MAX) |  |

**3. Procedures**

**3.1. Procedure: assignCourseToTrack**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | course\_id | int |  |
|  | track\_id | int |  |
|  | operation | nvarchar(10) |  |
|  | result | int |  |

**3.2. Procedure: AssignInstructorToCourse**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | ins\_id | int |  |
|  | crs\_id | int |  |
|  | operation | nvarchar(10) |  |
|  | result | int |  |

**3.3. Procedure: assignStudentToCourse**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | ssn | int |  |
|  | crs\_id | int |  |
|  | operation | nvarchar(10) |  |
|  | result | int |  |

**3.4. Procedure: assignTrackToBranch**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | track\_id | int |  |
|  | branch\_id | int |  |
|  | operation | nvarchar(10) |  |
|  | result | int |  |

**3.5. Procedure: check\_branch**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | id | int |  |

**3.6. Procedure: check\_instructor**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | id | int |  |

**3.7. Procedure: check\_topic**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | id | int |  |

**3.8. Procedure: course\_insights**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | id | int |  |

**3.9. Procedure: dmlQuerries**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | tablename | nvarchar(50) |  |
|  | operation | nvarchar(10) |  |
|  | columns | nvarchar(MAX) |  |
|  | values | nvarchar(MAX) |  |
|  | condition | nvarchar(MAX) |  |
|  | nestlevel | int |  |

**3.10. Procedure: Exam\_Correction**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | st\_id | int |  |
|  | exam\_id | int |  |

**3.11. Procedure: generat1eexam**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | examname | nvarchar(100) |  |
|  | examduration | int |  |
|  | examdate | date |  |
|  | courseid | int |  |
|  | totalquestions | int |  |

**3.12. Procedure: generateexam**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | coursename | nvarchar(100) |  |

**3.13. Procedure: Get\_Exam\_Details**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | ins\_id | int |  |

**3.14. Procedure: get\_id**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | table | varchar(MAX) |  |
|  | param | varchar(MAX) |  |
|  | nestlevel | int |  |

**3.15. Procedure: get\_name**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | table | varchar(MAX) |  |
|  | email | varchar(MAX) |  |

**3.16. Procedure: get\_password**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | table | varchar(MAX) |  |
|  | email | varchar(MAX) |  |
|  | nestlevel | int |  |

**3.17. Procedure: GetCourseTopics**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | topicId | int |  |

**3.18. Procedure: GetExamQuestionsAndChoices**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | examId | int |  |

**3.19. Procedure: GetInsCourse**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | insId | int |  |

**3.20. Procedure: GetInstructorCourseQuestions**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | ins\_id | int |  |
|  | course\_name | varchar(100) |  |
|  | result | int |  |

**3.21. Procedure: GetInstructorIdByName**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | InstructorName | nvarchar(100) |  |

**3.22. Procedure: GetInstructorStudentGrades**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | insId | int |  |

**3.23. Procedure: GetLastInsertedTrackId  
- Fetch the last identity value in the current session  
  
3.24. Procedure: GeTopicIdByName**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | TopicName | nvarchar(100) |  |

**3.25. Procedure: GetRandomExamQuestions**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | course\_name | nvarchar(100) |  |
|  | ssn | int |  |

**3.26. Procedure: GetStudentExamReport**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | examId | int |  |
|  | studentId | int |  |

**3.27. Procedure: GetStudentGrades**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | stId | int |  |

**3.28. Procedure: GetStudentGradesStatus**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | ssn | int |  |

**3.29. Procedure: GetStudentInfoByDepartment**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | TracktNo | int |  |

**3.30. Procedure: GetStudentInfoByTracks**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | TracktNo | int |  |

**3.32. Procedure: Ins\_Course**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | insId | int |  |

**3.33. Procedure: Insert\_Student\_Answers**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | st\_id | int |  |
|  | exam\_id | int |  |
|  | ques\_id | int |  |
|  | answer | nvarchar(150) |  |

**3.34. Procedure: InsertTrack**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | TrackName | nvarchar(100) |  |
|  | InstructorId | int |  |
|  | AdminId | int |  |
|  | TrackId | int |  |

**3.35. Procedure: instructorInfo**

**- display all instructors info**

**3.36. Procedure: isStudTakeExam**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | ssn | int |  |
|  | crs\_name | nvarchar(100) |  |
|  | result | int |  |

**3.37. Procedure: login\_check**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | table | varchar(MAX) |  |
|  | email | varchar(MAX) |  |
|  | password | varchar(MAX) |  |
|  | nestlevel | int |  |

**3.38. Procedure: search**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | table | varchar(MAX) |  |
|  | col | varchar(MAX) |  |
|  | search\_text | varchar(MAX) |  |
|  | nestlevel | int |  |

**3.39. Procedure: stud\_Course**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Data type | Description |
|  | ssn | int |  |

**3.40. Procedure: StudentInfo   
- display all students info**