**Department of Computer Science**

Term Project Proposal, Summer 2018-19

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| Course | OBJECT ORIENTED PROGRAMMING 2 | Group |  |

**Group Members:**

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| Student ID | Name | Section |
| **12-20111-1** | **AHMED, REJWAN** | **A** |
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**Project Title:**

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| **Railway Management System** |

**Project Description:**

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| **Project Features Based on User Perspectives:**   * Admin (Manager)   + Admin can sign in & sign out from the system with a unique id of his/her.   + Admin can change or modify the password.   + Admin can view his/ her profile and can edit the profile.   + Admin can view & update the information regarding train schedules   + Admin can track the financial information like profit from selling tickets etc. * Customer (Passenger) * New customer can sign up into the system. * Customer can sign in & sign out from the system with a unique id of his/her. * Customer can view the information regarding train schedules and costs for purchasing tickets. * Customer can change or modify the password. * Customer can view his/ her profile and can edit the profile. * Customer also can view his/her purchased histories and etc.     --------------------------------------------------------------x----------------------------------------------------------------  **Data Dictionary (Collection of Tables)**  Login Table   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Key | Name | Data Type | Length | Nullable | | PK | Id | int | 10 | No | |  | password | varchar | 50 | no |   Admin (Manager) Table   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Key | Name | | Data Type | Length | | | Nullable | | PK | employeeID | | int | 10 | | | no | |  | employeeName | | varchar | 50 | | | No | |  | email | | varchar | 50 | | | No | |  | designation | | varchar | 50 | | | No | |  | hiredate | | date | 12 | | | No | |  | salary | int | | 8 | | No | | |  | mobileNumber | varchar | | | 11 | no | |   Customer (Passenger) Table   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Key | Name | Data Type | Length | Nullable | | PK | customerID | int | 10 | No | |  | customerName | Varchar | 50 | No | |  | email | Varchar | 50 | No | |  | mobileNumber | varchar | 11 | No |   Train Info Table   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Key | Name | | Data Type | Length | Nullable | | | PK | trainID | | Int | 10 | No | | |  | trainName | | Varchar | 50 | no | | |  | capacity | | int | 8 | no | | |  | trainType | | Varchar | 50 | no | | |  | classACabinNumber | Int | | 8 | | no | |  | classBChairNumber | Int | | 8 | | no | |  | normalChairNumber | int | | 8 | | no |   Train Schedules Table   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Key | Name | Data Type | Length | Nullable | | PK | trainScheduleID | int | 10 | No | | FK | trainID | int | 10 | No | |  | date | date | 12 | No | |  | time | date | 12 | No | |  | availableSeat | int | 8 | No | |  | bookedSeat | int | 8 | No | |  | sourcePlace | varchar | 50 | No | |  | destinationPlace | varchar | 50 | No | | | |
| **Requirements**: |  |  |
| * At least 2 types of User * One Complete Repository * Database Connection Class. * Normalized DB (2NF) | * Search Option for all users. * Separate Login Table * OOP Principles * Application Layer (Form Design). | * Database CRUD operations * All the Forms MUST be connected. * n-Tier Architecture. * Entity Classes |