# Set 4 - Assignments on Creating Tables

MainBridge Systems Inc., has contracted your company to automate their Resource Management System currently done using Spreadsheets. The automated system would provide them scalability and also enable them to port it to high-end technologies.

Resource refers to personnel, hardware, software, and any other infrastructure that are necessary for executing a project. Resource management in this context deals with managing personnel utilization.

**Create the following tables. Apply Data Integrity Rules such as Primary Key, Foreign Key, Unique Key, Not Null, Check constraints and Default values as per requirement.**

**Also add at least 8 to 10 meaningful records in each table.**

**Display outputs using at least 3 to 4 meaningful select statements which will include techniques such as Joins, Group By, Sub Queries, Derived Tables, Window functions, Case functions etc.**

The database architect has provided with the table structures for the application.

# SCHEDULER\_lOGIN TABLE

|  |  |
| --- | --- |
| Scheduler\_Name | Varchar(30) |
| Password | Varchar(30) |

**create table SCHEDULER\_LOGIN**

**(Scheduler\_Name Varchar(30) check(Scheduler\_Name NOT LIKE '%[^a-zA-Z]%'),**

**Password Varchar(30))**

# Employee tABLE

|  |  |
| --- | --- |
| Column Name | Data type |
| Employee\_ID | Number(9) |
| Employee\_Name | Varchar(30) |
| DOB | Date |
| DOJ | Date |
| Qualification | Varchar(50) |
| Experience | Number(2) |
| Skill\_ID | Varchar(100) |
| Technology | Varchar(100) |
| Grade | Varchar(5) |
| Designation | Varchar(50) |
| Resource\_Status | Varchar(20) |
| Project\_ID | Number(9) |

**create table EMPLOYEE**

**(Employee\_ID numeric(9) Primary Key,**

**Employee\_Name Varchar(30),**

**DOB Date,**

**DOJ Date,**

**Qualification Varchar(50),**

**Experience numeric(4,2),**

**Skill\_Id numeric(3),**

**Technology Varchar(100),**

**Grade\_Id numeric(3),**

**Designation Varchar(50),**

**Resource\_Status Varchar(20),**

# Project\_ID numeric(9))

# Project\_MASTER tABLE

|  |  |
| --- | --- |
| Column Name | Data type |
| Project\_ID | Number(9) |
| Project\_Name | Varchar(100) |
| BHU (Business Handling Unit) | Varchar(20) |
| Location | Varchar(20) |
| DUL (DU Lead) (Hint :this is the employee ID) | Number(9) |
| Start\_Date | Date |
| Expected\_End\_Date | Date |

**create table PROJECT\_MASTER**

**(Project\_ID numeric(9) Primary Key,**

**Project\_Name Varchar(100),**

**BHU Varchar(20),**

**Location Varchar(20),**

**DUL numeric(9) references EMPLOYEE(Employee\_ID),**

**Start\_Date Date,**

**Expected\_End\_Date Date)**

# Project\_DETAILS tABLE

|  |  |
| --- | --- |
| Column Name | Data type |
| Project\_ID | Number(9) |
| Skill\_Id | Number(3) |
| Technology | Varchar(20) |
| Start\_Date | Date |
| Expected\_End\_Date | Date |
| Number\_Of\_Resources | Number(1) |
| Skill\_Status | Varchar(1) |
|  |  |

**create table PROJECT\_DETAILS**

**(Project\_ID numeric(9) references PROJECT\_MASTER(Project\_ID),**

**Skill\_Id numeric(3),**

**Technology Varchar(20),**

**Start\_Date Date,**

**Expected\_End\_Date Date,**

**Number\_Of\_Resources varchar(1),**

**Skill\_Status Varchar(1))PROJECT\_Schedule\_MASTER TABLE**

|  |  |
| --- | --- |
| Column Name | Data type |
| Schedule\_ID | Number |
| Project\_ID | Number(3) |
| Project\_Name | Varchar(100) |
| Start\_Date | Date |
| Expected\_End\_Date | Date |
| Requirement Requestor\*\*(RR\_Name) | Varchar(20) |
| RR\_EnterpriseId | Varchar(20) |
| RR\_PhoneNo | Varchar(15) |

**create table PROJECT\_SCHEDULE\_MASTER**

**(Schedule\_ID numeric Primary Key,**

**Project\_ID numeric(9) references PROJECT\_MASTER(Project\_ID),**

**Project\_Name Varchar(100),**

**Start\_Date Date,**

**Expected\_End\_Date Date,**

**RR\_Name Varchar(20),**

**RR\_EnterpriseId Varchar(20),**

**RR\_PhoneNo Varchar(15))**

**PROJECT\_ScheduLE\_DETAILS TABLE**

|  |  |
| --- | --- |
| Column Name | Data type |
| Schedule\_ID | Number |
| Skill\_ID | Number |
| Number\_Of\_Resources | Number |
| Employee\_ID | Number |
| Employee\_Name | Varchar(20) |
| Designation | Varchar(50) |
| Start\_Date | Date |
| Expected\_End\_Date | Date |
| Resource\_Status | Varchar |

**Create Table PROJECT\_SCHEDULE\_DETAILS**

**(Schedule\_ID numeric references PROJECT\_SCHEDULE\_MASTER(Schedule\_ID),**

**Skill\_ID numeric(3),**

**Number\_Of\_Resources numeric,**

**Employee\_ID numeric(9) references EMPLOYEE(Employee\_ID),**

**Employee\_Name Varchar(20),**

**Designation Varchar(50),**

**Start\_Date Date,**

**Expected\_End\_Date Date,**

**Resource\_Status Varchar)**

**SKILL TABLE**

|  |  |
| --- | --- |
| Column Name | Data type |
| Skill\_Id | Number(3) |
| Technology | Varchar(100) |

**create table SKILL**

**(Skill\_Id numeric(3) Primary Key,**

**Technology Varchar(100))**

**GRADE TABLE**

|  |  |
| --- | --- |
| Column Name | Data type |
| Grade\_ID | Number(3) |
| Grade | Number (3) |
| Designation | Varchar(30) |

**create table GRADE**

**(Grade\_ID numeric(3) Primary Key,**

**Grade numeric(3),**

**Designation Varchar(30))**