

EMPLOYEE PAYROLL MANAGEMENT SYSTEM

(BEGINNER -LEVEL)

SOURCE CODE:

--CREATE TABLES--

Employee

```
CREATE TABLE Employee(  
    Employee_Id NUMBER(6),  
    First_Name VARCHAR2(25),  
    Last_Name VARCHAR2(25),  
    Hire_Date DATE,  
    City VARCHAR2(25),  
    State VARCHAR2(25),  
    CONSTRAINT EMPLOYEE_PK PRIMARY KEY (Employee_Id));
```

Department

```
CREATE TABLE Department(  
    Department_Id NUMBER,  
    Department_Name VARCHAR2(30),  
    CONSTRAINT DEPARTMENT_PK PRIMARY KEY (Department_Id)  
);
```

Salary

```
CREATE TABLE Salary(  
    Salary_Id NUMBER,  
    Gross_Salary NUMBER,  
    Hourly_Pay NUMBER,  
    State_Tax NUMBER,  
    Federal_Tax NUMBER,  
    Account_Id NUMBER,  
    CONSTRAINT SALARY_PK PRIMARY KEY (Salary_Id),  
    FOREIGN KEY (Account_Id)  
        REFERENCES ACCOUNTDETAILS(Account_Id)  
);
```

DepartmentProject Bridge

```
CREATE TABLE DepartmentProject(  
    Department_Id NUMBER,  
    Project_Id NUMBER,  
    CONSTRAINT DEPTPROJECT_PK PRIMARY KEY (Department_Id,Project_Id),  
    FOREIGN KEY (Department_Id)  
        REFERENCES Department(Department_Id),  
    FOREIGN KEY (Project_Id)  
        REFERENCES Project(Project_Id)  
);
```

Project

CREATE TABLE Project(
Project_Id NUMBER,
Project_Name VARCHAR2(50),
Project_Description VARCHAR2(50),
CONSTRAINT Project_PK PRIMARY KEY (Project_Id)
);

AccountDetails

CREATE TABLE AccountDetails(
Account_Id NUMBER,
Bank_Name VARCHAR2(50),
Account_Number VARCHAR2(50),
Employee_Id NUMBER,
CONSTRAINT Account_PK PRIMARY KEY (Account_Id),
FOREIGN KEY (Employee_Id)
REFERENCES Employee(Employee_Id)
);

Education

CREATE TABLE Education(
Education_Id NUMBER,
Employee_Id NUMBER,
Degree VARCHAR(30),

```
Graduation_Year NUMBER(4),  
CONSTRAINT Location_PK PRIMARY KEY (Education_Id),  
FOREIGN KEY (Employee_Id)  
    REFERENCES Employee(Employee_Id)  
);
```

Leave

```
CREATE TABLE Leave(  
    Leave_Id NUMBER,  
    Employee_Id NUMBER,  
    Leave_date DATE,  
    CONSTRAINT Leave_PK PRIMARY KEY (Leave_Id),  
    FOREIGN KEY (Employee_Id)  
        REFERENCES Employee(Employee_Id)  
);
```

EmployeeAttendance Bridge

```
CREATE TABLE Employee_Attendance(  
    Employee_Id NUMBER,  
    Attendance_Id NUMBER,  
    CONSTRAINT DEPARTMENTPROJECT_PK PRIMARY KEY  
    (Employee_Id,Attendance_Id),  
    FOREIGN KEY (Employee_Id)  
        REFERENCES Employee(Employee_Id),
```

```
FOREIGN KEY (Attendance_Id)
    REFERENCES Attendance(Attendance_Id)
);
```

Attendance

```
CREATE TABLE Attendance(
Attendance_Id NUMBER,
Hours_Worked NUMBER,
CONSTRAINT Attendance_PK PRIMARY KEY (Attendance_Id)
);
```

WorkLocation

```
CREATE TABLE Work_Location(
Location_Id NUMBER,
Location VARCHAR2(25),
Number_Of_Employees NUMBER,
City VARCHAR2(25),
State VARCHAR2(25),
CONSTRAINT Loc_PK PRIMARY KEY (Location_Id)
);
```

INSERT QUERIES:

Employee

```
INSERT INTO Employee VALUES (101,'Ojas','Phansekar',to_date('14-APR-16', 'dd-MON-yyyy'),'New York City','New York',1);
```

```
INSERT INTO Employee VALUES (102,'Vrushali','Patil',to_date('21-JUN-18', 'dd-MON-yyyy'),'Boston','Massachusetts',2);
```

```
INSERT INTO Employee VALUES (103,'Pratik','Parija',to_date('13-SEP-19', 'dd-MON-yyyy'),'Chicago','Illinois',3);
```

```
INSERT INTO Employee VALUES (104,'Chetan','Mistry',to_date('12-APR-11', 'dd-MON-yyyy'),'Miami','Florida',4);
```

```
INSERT INTO Employee VALUES (105,'Anugraha','Varkey',to_date('16-AUG-17', 'dd-MON-yyyy'),'Atlanta','Georgia',5);
```

```
INSERT INTO Employee VALUES (106,'Rasagnya','Reddy',to_date('25-JUL-18', 'dd-MON-yyyy'),'San Mateo','California',6);
```

```
INSERT INTO Employee VALUES (107,'Aishwarya','Boralkar',to_date('18-DEC-10', 'dd-MON-yyyy'),'San Francisco','California',7);
```

```
INSERT INTO Employee VALUES (108,'Shantanu','Savant',to_date('27-NOV-15', 'dd-MON-yyyy'),'Seattle','Washington',8);
```

```
INSERT INTO Employee VALUES (109,'Kalpita','Malvankar',to_date('24-APR-16', 'dd-MON-yyyy'),'Boston','Massachusetts',8);
```

```
INSERT INTO Employee VALUES (110,'Saylee','Bhagat',to_date('21-MAY-14', 'dd-MON-yyyy'),'San Francisco','California',7);
```

Department

```
INSERT INTO Department VALUES (1,'Human Resources');
```

```
INSERT INTO Department VALUES (2,'Software Development');
```

```
INSERT INTO Department VALUES (3,'Data Analysis');
```

```
INSERT INTO Department VALUES (4,'Data Science');
```

```
INSERT INTO Department VALUES (5,'Business Intelligence');
```

```
INSERT INTO Department VALUES (6,'Data Engineering');
```

```
INSERT INTO Department VALUES (7,'Manufacturing');
```

INSERT INTO Department VALUES (8,'Quality Control');

Project

INSERT INTO Project VALUES (21,'Dev','Whatever');

INSERT INTO Project VALUES (22,'Prod','do something');

INSERT INTO Project VALUES (23,'Test','focus');

INSERT INTO Project VALUES (24,'Nothing','do nothing');

INSERT INTO Project VALUES (25,'Research','focus on everything');

INSERT INTO Project VALUES (26,'Next Steps','find some way out');

AccountDetails

INSERT INTO AccountDetails VALUES (40,'Santander','S12344',101);

INSERT INTO AccountDetails VALUES (41,'Santander','S12345',102);

INSERT INTO AccountDetails VALUES (42,'Santander','S12346',103);

INSERT INTO AccountDetails VALUES (43,'Santander','S12347',104);

INSERT INTO AccountDetails VALUES (44,'Chase','C12344',105);

INSERT INTO AccountDetails VALUES (45,'Chase','C12345',106);

INSERT INTO AccountDetails VALUES (46,'Chase','C12347',107);

INSERT INTO AccountDetails VALUES (47,'Chase','C12334',108);

INSERT INTO AccountDetails VALUES (48,'BOFA','C12378',109);

INSERT INTO AccountDetails VALUES (49,'BOFA','C12390',110);

Education

INSERT INTO Education VALUES (10,101,'MS',2017);

INSERT INTO Education VALUES (11,102,'MS',2019);

INSERT INTO Education VALUES (12,104,'MS',2011);

INSERT INTO Education VALUES (13,108,'MS',2015);

INSERT INTO Education VALUES (14,109,'Bachelor',2013);

INSERT INTO Education VALUES (15,107,'Bachelor',2008);

INSERT INTO Education VALUES (16,106,'Bachelor',2007);

Leave

INSERT INTO Leave VALUES (51,104,to_date('1-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (52,108,to_date('2-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (53,109,to_date('3-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (54,107,to_date('4-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (55,106,to_date('5-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (56,104,to_date('6-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (57,108,to_date('7-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (58,109,to_date('7-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (59,107,to_date('8-DEC-19', 'dd-MON-yyyy'));

INSERT INTO Leave VALUES (60,106,to_date('9-DEC-19', 'dd-MON-yyyy'));

Attendance

INSERT INTO Attendance VALUES (90,10);

INSERT INTO Attendance VALUES (91,20);

INSERT INTO Attendance VALUES (92,30);

INSERT INTO Attendance VALUES (93,40);

INSERT INTO Attendance VALUES (94,45);

INSERT INTO Attendance VALUES (95,56);

INSERT INTO Attendance VALUES (96,58);

Work_Location

INSERT INTO Work_Location VALUES (71,'North',4,'New York City','New York',101);

INSERT INTO Work_Location VALUES (72,'North',4,'Boston','Massachusetts',102);

INSERT INTO Work_Location VALUES (73,'North',4,'Chicago','Illinois',103);

INSERT INTO Work_Location VALUES (74,'North',89,'Miami','Florida',104);

INSERT INTO Work_Location VALUES (75,'South',90,'Atlanta','Georgia',105);

INSERT INTO Work_Location VALUES (76,'South',100,'San Mateo','California',106);
INSERT INTO Work_Location VALUES (77,'South',4,'San Francisco','California',107);
INSERT INTO Work_Location VALUES (78,'South',2,'Seattle','Washington',108);
INSERT INTO Work_Location VALUES (79,'South',25,'Alpharetta','Georgia',109);
INSERT INTO Work_Location VALUES (80,'South',20,'Keene','New Hampshire',110);
INSERT INTO Work_Location VALUES (81,'South',22,'Hampton','New Hampshire',109);

Employee_Attendance

INSERT INTO Employee_Attendance VALUES (101,90);
INSERT INTO Employee_Attendance VALUES (102,91);
INSERT INTO Employee_Attendance VALUES (103,92);
INSERT INTO Employee_Attendance VALUES (104,93);
INSERT INTO Employee_Attendance VALUES (105,94);
INSERT INTO Employee_Attendance VALUES (106,95);
INSERT INTO Employee_Attendance VALUES (107,96);
INSERT INTO Employee_Attendance VALUES (108,91);
INSERT INTO Employee_Attendance VALUES (109,92);
INSERT INTO Employee_Attendance VALUES (110,93);

DepartmentProject

INSERT INTO DepartmentProject VALUES (1,21);
INSERT INTO DepartmentProject VALUES (2,22);
INSERT INTO DepartmentProject VALUES (3,23);
INSERT INTO DepartmentProject VALUES (4,24);
INSERT INTO DepartmentProject VALUES (5,25);
INSERT INTO DepartmentProject VALUES (6,26);
INSERT INTO DepartmentProject VALUES (7,21);
INSERT INTO DepartmentProject VALUES (8,24);

Salary

```
INSERT INTO Salary VALUES (1,57600,30,200,1000,40);
INSERT INTO Salary VALUES (2,76800,40,300,1300,41);
INSERT INTO Salary VALUES (3,96000,50,400,1500,42);
INSERT INTO Salary VALUES (4,115200,60,500,1700,43);
INSERT INTO Salary VALUES (5,57600,30,200,1000,44);
INSERT INTO Salary VALUES (6,76800,40,300,1300,45);
INSERT INTO Salary VALUES (7,96000,50,400,1500,46);
INSERT INTO Salary VALUES (8,115200,60,500,1700,47);
INSERT INTO Salary VALUES (9,57600,30,200,1000,48);
INSERT INTO Salary VALUES (10,76800,40,300,1300,49);
```

```
create directory ext_Salaries
as 'C:\Users\phansekar.o\Desktop\Salary.csv'
/
```

```
create table Salary_External (
  Salary_Id NUMBER,
  Gross_Salary NUMBER,
  Hourly_Pay NUMBER,
  State_Tax NUMBER,
  Federal_Tax NUMBER,
  Account_Id NUMBER
)
organization external (
  type oracle_loader
  default directory ext_Salaries
```

```
access parameters (  
    fields terminated by ',' )  
    location ('Salary.csv')  
)  
reject limit unlimited  
/
```

Transaction

```
INSERT INTO Employee VALUES (111,'Priyanka','Jonas',to_date('14-NOV-16', 'dd-MON-yyyy'),'New York City','New York',1);
```

```
commit;
```

```
INSERT INTO Employee VALUES (112,'John','Vincent',to_date('21-JUN-18', 'dd-MON-yyyy'),'Boston','Massachusetts',2);
```

```
SAVEPOINT A1;
```

```
INSERT INTO Employee VALUES (113,'Pratik','Panhale',to_date('13-SEP-19', 'dd-MON-yyyy'),'Chicago','Illinois',3);
```

```
SAVEPOINT A2;
```

```
ROLLBACK A1;
```

Update employee

```
set Department_Id = 1  
where Employee_Id = 101;
```