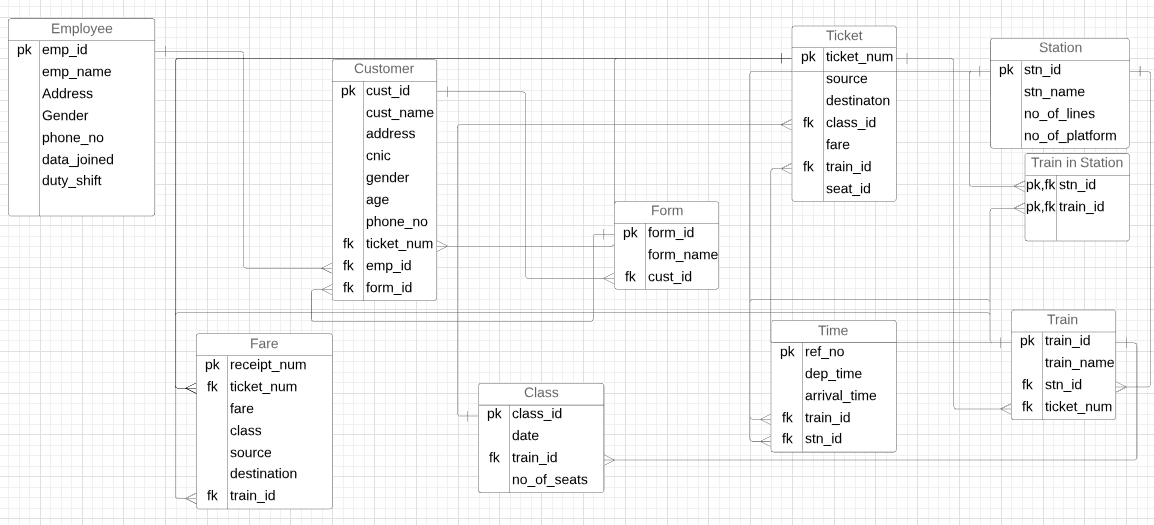
***Name: Muneeb Raza (p17-6149)***

***Name: M.Ahmed Arshed (p17-6099)***

***Section: CS17-A***

***Railway System***

**Entity Relationship Diagram**



**Normalization**

**Unnormalize form:**

Emp\_name , Emp\_id , Address , Gender , phone\_no , data\_joined , Salary , Designation , duty\_shift , customer\_name , customer\_id , cus\_address , age , gender, phone\_no , ticket\_num , source\_destination , class , Fare , Train\_id , Seat\_id, station\_name , no\_of\_lines , station\_id , no\_of\_platforms, train\_name , train\_num, form\_id , form\_name , date , no\_of\_seats , class\_id,

source , destination , fare , receipt\_num, ref\_no , dep\_time , Arrival\_time

**Normalizing:**

**Table : Employee**

(emp\_id , emp\_name , address , gender , phone\_no , date\_joined , duty\_shift)

**Emp\_id (primary key)**

**Table : Customer**

(cust\_id , cust\_name , ticket\_id , gender , cus\_phone\_no , emp\_id , CNIC , form\_id)

**Cust\_id(primary key)**

**Emp\_id(Foregin key)**

**Form\_id(Foregin key)**

**Ticket\_id(Foregin key)**

**Table : Ticket**

(ticket\_num , source , destination , class\_id ,fare , train\_id , seat\_id)

**Ticket\_num(primary key)**

**Class\_id(Foregin key)**

**Train\_id(Foregin key)**

**Table :Station**

(station\_name , no\_of\_lines , station\_id , no\_of\_platforms)

**Station\_id(primary key)**

**Table : Train**

(train\_id , std\_id , train\_name , ticket\_num)

**train\_num(primary key)**

**station\_id(Foregin key)**

**ticket\_num(Foregin key)**

**Table : Form**

(form\_id , form\_name , cust\_id)

**Form\_id(primary key)**

**cust\_id(Foregin key)**

**Table : Class**

(class\_id , date ,no\_of\_seats , train\_id)

**Class\_id(primary key)**

**Train\_id(foregin key)**

**Table:Fare**

(Receipt\_num , Ticket\_num , fare , class , destination , Source , train\_id)

**Receipt\_num(primary key)**

**Ticket\_num(Foreign key)**

**Table : Time**

(ref\_no , dep\_time , Arrival\_time , train\_id , station\_id)

**Ref\_no(primary key)**

**Tarin\_id(Foregin key)**

**Station\_id(Foregin key)**