**Rule 1, 3**

**create** **table** Login(

userID **varchar**(255), privilege **varchar**(255),

loginTime **timestamp**, logoutTime **timestamp**,

**primary** **key** (userID),

**check**(privilege = 'Admin' **or** privilege = 'Sales' **or** privilege = 'HR' **or** privilege = 'Engineering')

);

**Rule 1, 3**

**create** **table** Inventory(

id **varchar**(255), costs **numeric**(8,2),

lead\_time **time**, category **varchar**(255),

model\_number **varchar**(255),

**primary** **key** (id),

**foreign** **key** (model\_number) **references** Model(model\_number)

);

**Rule 1, 3**

**create** **table** Model(

model\_number **varchar**(255), sale\_price **numeric**(8,2),

origin **varchar**(255),

**primary** **key** (model\_number)

);

**Rule 1, 3, 4, 5, 7**

**create** **table** Employee(

first\_name **varchar**(255), last\_name **varchar**(255),

SSN **int**, employee\_id **varchar**(255),

user\_id **varchar**(255), salary **int**,

salary\_type **varchar**(255), job\_type **varchar**(255),

**primary** **key** (employee\_id),

**foreign** **key** (user\_id) **references** Login(userID),

**check**(SSN > 99999999 **and** SSN < 1000000000),

**check**(salary > 0), **check**(salary\_type = 'Hourly' **or** salary\_type = 'Yearly')

);

**Rule 1, 4**

**create** **table** Customer(

first\_name **varchar**(255), last\_name **varchar**(255),

customer\_id **varchar**(255), email **varchar**(255),

**primary** **key** (customer\_id),

**check**(email **like** '%@%')

);

**Rule 1, 4, 5**

**create** **table** Orders(

order\_number **varchar**(255), customer\_id **varchar**(255),

employee\_id **varchar**(255),

sale\_value **int**,

**primary** **key** (order\_number),

**foreign** **key** (customer\_id) **references** Customer(customer\_id),

**foreign** **key** (employee\_id) **references** Employee(employee\_id),

**check**(sale\_value > 0)

);

**Rule 2, 4**

**create** **table** OrderModels(

order\_number **varchar**(255), model **varchar**(255),

**foreign** **key** (order\_number) **references** Orders(order\_number),

**foreign** **key** (model) **references** Model(model\_number)

);

**create** **index** userLogin **on** Login(userID, privilege);

**create** **unique** **index** inventory\_id **on** Inventory(id, costs);

**create** **index** model\_stuff **on** Model(model\_number, sale\_price);

**create** **index** employee\_stuff **on** Employee(first\_name, last\_name, SSN);

**create** **unique** **index** customer\_stuff **on** Customer(customer\_id, email);

**create** **index** order\_stuff **on** Orders(order\_number, customer\_id);

**create** **index** ordermodel\_stuff **on** OrderModels(order\_number);

**create** **user** userAdmin;

**create** **user** userHR;

**create** **user** userSales;

**create** **user** userEngineering;

**grant** **all** **on** Login **to** userAdmin;

**grant** **all** **on** Inventory **to** userAdmin;

**grant** **all** **on** Employee **to** userAdmin;

**grant** **all** **on** Model **to** userAdmin;

**grant** **all** **on** Customer **to** userAdmin;

**grant** **all** **on** Orders **to** userAdmin;

**grant** **all** **on** OrderModels **to** userAdmin;

**grant** **all** **on** Customer **to** userSales;

**grant** **insert**, **select**, **update** **on** Orders **to** userSales;

**grant** **all** **on** Model **to** userEngineering;

**grant** **all** **on** Inventory **to** userEngineering;

**create** **view** userEngineeringView

**as**

**select** first\_name, last\_name, job\_type **from** Employee;

**grant** **select** **on** userEngineeringView **to** userEngineering;

**grant** **all** **on** Employee **to** userHR;

**grant** **select** **on** Orders **to** userHR;