

```
CREATE TABLE DEPARTMENT
(
DEPTID INT NOT NULL,
DEPARTMENT_NAME VARCHAR2(50) NOT NULL,
MANAGER_NAME VARCHAR2(50) NOT NULL,
DESCRIPTION VARCHAR2(50) NOT NULL,
CONSTRAINT DEPARTMENT_DEPTID_PK PRIMARY KEY (DEPTID) ENABLE
);
```

```
CREATE TABLE EMPLOYEE
(
EMPID INT NOT NULL ,
EMPNAME VARCHAR2(20) NOT NULL ,
EMAIL VARCHAR2(20) ,
CONTACT VARCHAR2(20) ,
DESIGNATION VARCHAR2(20) ,
DEPTID INT NOT NULL ,
MANAGERID INT NOT NULL ,
CONSTRAINT EMPLOYEE_EMPID_PK PRIMARY KEY (EMPID) ENABLE
);
```

```
ALTER TABLE EMPLOYEE
ADD CONSTRAINT EMPLOYEE_DEPTID_FK FOREIGN KEY (DEPTID) REFERENCES
DEPARTMENT (DEPTID)
ENABLE;
```

```
ALTER TABLE EMPLOYEE
ADD CONSTRAINT EMPLOYEE_MANAGERID_FK FOREIGN KEY (MANAGERID)
REFERENCES EMPLOYEE (EMPID)
ENABLE;
```

```
CREATE TABLE PAYROLL
(
PAYID INT NOT NULL ,
SIN VARCHAR2(20) UNIQUE NOT NULL,
SALARY VARCHAR2(20) ,
BANK_BRANCH VARCHAR2(20) ,
ACC_NUMBER VARCHAR2(20) ,
EMPID INT NOT NULL ,
CONSTRAINT PAYROLL_EMPID_FK FOREIGN KEY (EMPID) REFERENCES EMPLOYEE
(EMPID) ENABLE
);
```

```
CREATE TABLE INSURANCE
(
INS_ID INT NOT NULL ,
INS_TYPE VARCHAR2(20) ,
COVERAGE VARCHAR2(20) ,
INS_DURATION VARCHAR2(20) ,
EMPID INT NOT NULL ,
CONSTRAINT INSURANCE_EMPID_FK FOREIGN KEY (EMPID) REFERENCES EMPLOYEE
(EMPID) ENABLE
);
```

```
CREATE TABLE ROUTE
(
  ROUTEID INT NOT NULL ,
  ROUTE_NAME VARCHAR2(20) ,
  START_LOCATION VARCHAR2(20) ,
  DESTINATION VARCHAR2(20) ,
  CONSTRAINT ROUTE_ROUTEID_PK PRIMARY KEY (ROUTEID) ENABLE
);
```

```
CREATE TABLE VENDOR
(
  VENDORID INT NOT NULL ,
  VENDOR_NAME VARCHAR2(20) ,
  VENDORT_LOCATION VARCHAR2(20) ,
  REVIEW VARCHAR2(20) ,
  SERVICE_FEE VARCHAR2(20) ,
  CONSTRAINT VENDOR_VENDORID_PK PRIMARY KEY (VENDORID) ENABLE
);
```

```
CREATE TABLE VEHICLE
(
  VEHICLEID INT NOT NULL ,
  VEHICLE_NUMBER VARCHAR2(20) UNIQUE NOT NULL,
  TYPE VARCHAR2(20) ,
  PURCHASE_DATE VARCHAR2(20) ,
  REGISTRATION_NUMBER VARCHAR2(20) ,
  CAPACITY VARCHAR2(20) ,
  EMPID INT NOT NULL ,
  ROUTEID INT NOT NULL ,
  CONSTRAINT VEHICLE_VEHICLEID_PK PRIMARY KEY (VEHICLEID) ENABLE ,
  CONSTRAINT VEHICLE_EMPID_FK FOREIGN KEY (EMPID) REFERENCES EMPLOYEE
(EMPID) ENABLE ,
  CONSTRAINT VEHICLE_ROUTEID_FK FOREIGN KEY (ROUTEID) REFERENCES ROUTE
(ROUTEID) ENABLE
);
```

```
CREATE TABLE MAINTENANCE
(
  MAINTENANCEID INT NOT NULL ,
  SERVICE_DATE VARCHAR2(20) NOT NULL,
  MILES VARCHAR2(20) ,
  STATUS VARCHAR2(20) ,
  MAINTENANCE_COST VARCHAR2(20) ,
  VENDORID INT NOT NULL ,
  VEHICLEID INT NOT NULL ,
  CONSTRAINT MAINTENANCE_MAINTENANCEID_PK PRIMARY KEY (MAINTENANCEID)
ENABLE ,
  CONSTRAINT MAINTENANCE_VENDORID_FK FOREIGN KEY (VENDORID) REFERENCES
VENDOR (VENDORID) ENABLE ,
  CONSTRAINT MAINTENANCE_VEHICLEID_FK FOREIGN KEY (VEHICLEID) REFERENCES
VEHICLE (VEHICLEID) ENABLE
);
```

```

CREATE TABLE VEHICLESCHEDULE
(
  SCHEDULEID INT NOT NULL ,
  DEPT_TIME VARCHAR2(20) NOT NULL,
  ARRIVAL_TIME VARCHAR2(20) ,
  VEHICLEID INT NOT NULL ,
  CONSTRAINT VEHICLESCHEDULE_SCHEDULEID_PK PRIMARY KEY (SCHEDULEID)
  ENABLE ,
  CONSTRAINT VEHICLESCHEDULE_VEHICLEID_FK FOREIGN KEY (VEHICLEID)
  REFERENCES VEHICLE (VEHICLEID) ENABLE
);

```

```

CREATE TABLE CARD
(
  CARDID INT NOT NULL ,
  TYPE VARCHAR2(20) NOT NULL,
  ISSUED_DATE VARCHAR2(20) ,
  BALANCE VARCHAR2(20) NOT NULL ,
  STATUS VARCHAR2(20) NOT NULL ,
  CONSTRAINT CARD_CARDID_PK PRIMARY KEY (CARDID) ENABLE
);

```

```

CREATE TABLE TRANSACTIONHISTORY
(
  TRANSACTIONID INT NOT NULL,
  AMOUNT VARCHAR2(20) NOT NULL,
  PAYMENT_MODE VARCHAR2(20) NOT NULL,
  PAYMENT_STATUS VARCHAR2(20) NOT NULL,
  CARDID INT NOT NULL ,
  CONSTRAINT TRANSACTIONHISTORY_TRANSACTIONID_PK PRIMARY KEY
  (TRANSACTIONID) ENABLE ,
  CONSTRAINT TRANSACTIONHISTORY_CARDID_FK FOREIGN KEY (CARDID) REFERENCES
  CARD (CARDID) ENABLE
);

```

```

CREATE TABLE EMPSCHEDULE
(
  ESCHEDULEID INT NOT NULL,
  WEEKLY_HOURS VARCHAR2(20) NOT NULL,
  LEAVE_COUNT VARCHAR2(20) NOT NULL,
  EMPID INT NOT NULL ,
  CONSTRAINT EMPSCHEDULE_ESCHEDULEID_PK PRIMARY KEY (ESCHEDULEID) ENABLE
  ,
  CONSTRAINT EMPSCHEDULE_EMPID_FK FOREIGN KEY (EMPID) REFERENCES
  EMPLOYEE (EMPID) ENABLE
);

```

```

CREATE TABLE CUSTOMER
(
  CUSTID INT NOT NULL,
  NAME VARCHAR2(20) NOT NULL,
  EMAIL VARCHAR2(20) NOT NULL,
  CONTACT VARCHAR2(20) NOT NULL,

```

```
CITY VARCHAR2(20) NOT NULL,  
ZIPCODE VARCHAR2(20) NOT NULL,  
ADDRESS VARCHAR2(20) NOT NULL,  
DOB VARCHAR2(20) NOT NULL,  
CARDID INT NOT NULL ,  
CONSTRAINT CUSTOMER_CUSTID_PK PRIMARY KEY (CUSTID) ENABLE ,  
CONSTRAINT CUSTOMER_CARDID_FK FOREIGN KEY (CARDID) REFERENCES CARD  
(CARDID) ENABLE  
);
```

```
CREATE TABLE CUSTACCOUNT  
(  
    USERID INT NOT NULL,  
    PASSWORD VARCHAR2(20) NOT NULL,  
    SECURITY_Q1 VARCHAR2(100) NOT NULL,  
    SECURITY_Q2 VARCHAR2(100) NOT NULL,  
    SECURITY_Q3 VARCHAR2(100) NOT NULL,  
    SECURITY_A1 VARCHAR2(20) NOT NULL,  
    SECURITY_A2 VARCHAR2(20) NOT NULL,  
    SECURITY_A3 VARCHAR2(20) NOT NULL,  
    CUSTID INT NOT NULL ,  
    CONSTRAINT CUSTACCOUNT_USERID_PK PRIMARY KEY (USERID) ENABLE ,  
    CONSTRAINT CUSTACCOUNT_CUSTID_FK FOREIGN KEY (CUSTID) REFERENCES  
CUSTOMER (CUSTID) ENABLE  
);
```

```
CREATE TABLE HELPDESK  
(  
    ENQUIRYID INT NOT NULL,  
    DESCRIPTION VARCHAR2(150) NOT NULL,  
    STATUS VARCHAR2(150) NOT NULL,  
    CUSTID INT NOT NULL ,  
    CONSTRAINT HELPDESK_ENQUIRYID_PK PRIMARY KEY (ENQUIRYID) ENABLE ,  
    CONSTRAINT HELPDESK_CUSTID_FK FOREIGN KEY (CUSTID) REFERENCES CUSTOMER  
(CUSTID) ENABLE  
);
```

```
CREATE TABLE FAREENUM  
(  
    FAREID INT NOT NULL,  
    DESCRIPTION VARCHAR2(20) NOT NULL,  
    FARE_AMOUNT VARCHAR2(20) NOT NULL,  
    CONSTRAINT FAREENUM_FAREID_PK PRIMARY KEY (FAREID) ENABLE  
);
```

```
CREATE TABLE RIDEHISTORY  
(  
    RIDEID INT NOT NULL,  
    START_LOCATION VARCHAR2(20) NOT NULL,  
    DESTINATION VARCHAR2(20) NOT NULL,  
    TAPPING_TIME VARCHAR2(20) NOT NULL,  
    VALID_TIME VARCHAR2(20) NOT NULL,  
    FAREID INT NOT NULL ,  
    VEHICLEID INT NOT NULL ,
```

```
CUSTID INT NOT NULL ,
CONSTRAINT RIDEHISTORY_RIDEID_PK PRIMARY KEY (RIDEID) ENABLE ,
CONSTRAINT RIDEHISTORY_VEHICLEID_FK FOREIGN KEY (VEHICLEID) REFERENCES
VEHICLE (VEHICLEID) ENABLE ,
CONSTRAINT RIDEHISTORY_CUSTID_FK FOREIGN KEY (CUSTID) REFERENCES
CUSTOMER (CUSTID) ENABLE
);
```

```
ALTER TABLE RIDEHISTORY ADD STATUS VARCHAR2(20) NOT NULL;
```

```
CREATE SEQUENCE DEPARTMENT_SEQ INCREMENT BY 1 START WITH 1;
```

```
CREATE INDEX VEHICLE_IDX ON VEHICLE(REGISTRATION_NUMBER);
```

```
CREATE INDEX CUSTNAME_IDX ON CUSTOMER(NAME, EMAIL);
```

-----

```
INSERT INTO Department VALUES (DEPARTMENT_SEQ.nextval, 'BDriver', 'Lucas', 'Drives a
transit bus');
INSERT INTO Department VALUES (DEPARTMENT_SEQ.nextval, 'TDriver', 'John', 'Drives a
transit train');
INSERT INTO Department VALUES
(DEPARTMENT_SEQ.nextval, 'Scavandezers', 'Jake', 'Responsible for cleaning bus regularly');
INSERT INTO Department VALUES (DEPARTMENT_SEQ.nextval, 'Customer
Care', 'William', 'Handles customer calls');
```

```

INSERT INTO Employee VALUES
(101,'John','ryan3456@outlook.com','4371123897','TDriver',2,101);
INSERT INTO Employee VALUES
(104,'Lucas','johnleila@gmail.com','4377894102','Manager',1,104);
INSERT INTO Employee VALUES
(102,'Rinky','rinkypreet@gmail.com','6472583690','BDriver',1,104);
INSERT INTO Employee VALUES
(103,'Cindy','cindy1534@gmail.com','6471020456','BDriver',1,104);
INSERT INTO Employee VALUES (105,'Shyam','shyam@outlook.com','4375567890','Customer
Care',4,105);

```

```

INSERT INTO Payroll VALUES (1,'985263014','2500','CIBC','0025874',101);
INSERT INTO Payroll VALUES (2,'911450025','1000','Royal Bank','1568741',104);
INSERT INTO Payroll VALUES (3,'911475263','2000','CIBC','1142265',103);
INSERT INTO Payroll VALUES (4,'933698154','2000','TD Bank','8856314',102);
INSERT INTO Payroll VALUES (5,'965472596','1500','Scotiabank','8978452',105);

```

```

INSERT INTO Insurance VALUES (1,'Life Insurance','50000','10',101);
INSERT INTO Insurance VALUES (2,'Health Insurance','6000','1',104);
INSERT INTO Insurance VALUES (3,'Health Insurance','5000','1',105);
INSERT INTO Insurance VALUES (4,'Life Insurance','50000','10',102);
INSERT INTO Insurance VALUES (5,'Life Insurance','50000','10',103);

```

```

INSERT INTO EmpSchedule VALUES (1,'45','5',101);
INSERT INTO EmpSchedule VALUES (2,'60','4',104);
INSERT INTO EmpSchedule VALUES (3,'60','3',105);
INSERT INTO EmpSchedule VALUES (4,'45','5',102);
INSERT INTO EmpSchedule VALUES (5,'45','5',103);

```

```

INSERT INTO Route VALUES (1,'Markham-Warden','Pittsburg','Warden');
INSERT INTO Route VALUES (2,'Orator-Warden','Lawerence','Warden');
INSERT INTO Route VALUES (3,'Stray-Kennedy','Birchmount','Kennedy');
INSERT INTO Route VALUES (4,'Kennedy-Eglinton','Crouse','Eglinton');

```

```

INSERT INTO Vendor VALUES (1001,'100','4-star rating','Eglinton Avenue','Star Services');
INSERT INTO Vendor VALUES (1002,'300','4-star rating','St Clair','Blueton');

```

```

INSERT INTO Vehicle VALUES (1,'114','Bus','25-09-2022','BNCG389','60',103,1);
INSERT INTO Vehicle VALUES (2,'154','Train','04-11-2021','100CN','500',101,3);
INSERT INTO Vehicle VALUES (3,'17','Bus','11-01-2019','GDFF954','60',102,4);

```

```

INSERT INTO Maintenance VALUES (1,'10-11-2022','5480','Pending','750',1002,2);
INSERT INTO Maintenance VALUES (2,'22-09-2022','1850','Done','150',1001,1);
INSERT INTO Maintenance VALUES (3,'12-11-2022','640','Pending','200',1001,3);

```

```

INSERT INTO VehicleSchedule VALUES (1,'9:50','11:15',1);
INSERT INTO VehicleSchedule VALUES (2,'19:05','21:50',3);
INSERT INTO VehicleSchedule VALUES (3,'15:30','17:10',2);
INSERT INTO VehicleSchedule VALUES (4,'5:30','7:45',2);
INSERT INTO VehicleSchedule VALUES (5,'1:30','16:10',3);

```

```

INSERT INTO Card VALUES (1001,'Student','27-10-2021','23.30','Active');
INSERT INTO Card VALUES (1002,'Senior Citizens','17-12-2019','25','Inactive');
INSERT INTO Card VALUES (1003,'Handicapped','09-01-2018','2','Cancelled');
INSERT INTO Card VALUES (1004,'Senior Citizens','11-05-2022','55.40','Active');
INSERT INTO Card VALUES (1005,'Handicapped','15-11-2017','23.90','Active');

```

```

INSERT INTO TransactionHistory VALUES (1,'100','Credit','Pending',1003);
INSERT INTO TransactionHistory VALUES (2,'150','Debit','Denied',1001);
INSERT INTO TransactionHistory VALUES (3,'20','Debit','Processing',1005);
INSERT INTO TransactionHistory VALUES (4,'50','Cash','Aborted',1002);
INSERT INTO TransactionHistory VALUES (5,'60','Cash','Successful',1004);

```

```

INSERT INTO CUSTOMER VALUES (1,'Annie','annie2419@gmail.com','4377329082',
'Scarborough','M1P2E1','258 Birchmount','25-10-2005',1001);
INSERT INTO CUSTOMER VALUES (2,'Thomas','tpier55@gmail.com','7894256310','North
York','M4B0E5','Synergy Road','14-01-1972',1002);
INSERT INTO CUSTOMER VALUES (3,'Pearson','girardp@gmail.com','7742584126',
'Etobicoke','M7G3H8','645 Victoria','09-11-2000',1003);
INSERT INTO CUSTOMER VALUES (4,'Ram','ramsajja@gmail.com','6478890189','East
York','M8P2E3','34 South Avenue','12-05-1970',1004);
INSERT INTO CUSTOMER VALUES (5,'Sandy','sandy@outlook.com','6473390189',
'Scarborough','M3C0C3','112 Kennedy','03-03-2015',1005);

```

```

INSERT INTO CUSTACCOUNT VALUES (1,'S%kika','Where do you live in your
childhood','Whats your dog name','Your favorite place','Scarborough','tommy','Park',1);
INSERT INTO CUSTACCOUNT VALUES (2,'nikethan','Where is you home','Who are you','Your
mothers maiden name','On earth','Student','Gigard',5);
INSERT INTO CUSTACCOUNT VALUES (3,'R@457','Your girlfriend name','Date of Birth','Your
car model','Rhaina','27-10-2000','No car',4);
INSERT INTO CUSTACCOUNT VALUES (4,'ryan4567','Whats your dog name','Your fathers
mother name','Your favorite place','tommy','Rani','Library',2);
INSERT INTO CUSTACCOUNT VALUES (5,'shyam89','Mothers last name','Your auntys
husband name','Your favorite game','Singh','Rao','Tennis',3);

```

```

INSERT INTO HelpDesk VALUES (1,'Lost the presto card','Deactivated Presto Card and
refunded amount',1);
INSERT INTO HelpDesk VALUES (2,'Load amount into presto card online','Register in Presto
app and load amount directly',5);
INSERT INTO HelpDesk VALUES (3,'How to know Presto Card number','Visible at the back of
the Presto Card',2);
INSERT INTO HelpDesk VALUES (4,'Presto Card not working','Take new card',3);
INSERT INTO HelpDesk VALUES (5,'How to convert Student account into Handicapped
account','Resolved by showing valid doctor certificate',4);

```

```

INSERT INTO FareEnum VALUES (1,'Students','3.20');
INSERT INTO FareEnum VALUES (2,'Senior Citizens','2.00');
INSERT INTO FareEnum VALUES (3,'Handicapped','1.70');

```

```

INSERT INTO RideHistory VALUES (1,'Crouse','Eglinton','13:15','15:15',3,1,3,'Completed');
INSERT INTO RideHistory VALUES (2,'Victoria','Kennedy','3:40','5:40',3,3,5,'Completed');
INSERT INTO RideHistory VALUES (3,'Kennedy','Warden','9:23','11:23',1,2,1,'Completed');
INSERT INTO RideHistory VALUES (4,'Birchmount','Warden','16:55','18:55',2,1,2,'Completed');

```

```
INSERT INTO RideHistory VALUES (5,'Donmills','Kennedy','5:05','7:05',2,3,4,'Halted');
```

-----

```
select * from card;
select * from custaccount;
select * from customer;
select * from department;
select * from employee;
select * from empschedule;
select * from fareenum;
select * from helpdesk;
select * from insurance;
select * from maintenance;
select * from payroll;
select * from ridehistory;
select * from route;
select * from transactionhistory;
select * from vehicle;
select * from vehicleschedule;
select * from vendor;
```

-----

```
CREATE VIEW CUSTOMER_RIDE AS
SELECT C.NAME, CD.BALANCE, CD.STATUS, CD.TYPE, FN.FARE_AMOUNT, RH.STATUS AS
RIDE_HISTORY_STATUS
FROM CUSTOMER C
INNER JOIN CARD CD ON CD.CARDID = C.CARDID AND CD.STATUS = 'Active'
INNER JOIN RIDEHISTORY RH ON RH.CUSTID = C.CUSTID
INNER JOIN FAREENUM FN ON FN.FAREID = RH.FAREID;
```

```
SELECT * FROM CUSTOMER_RIDE;
```

```
CREATE VIEW CUSTOMER_INFORMATION AS
SELECT CA.USERID, C.NAME, CD.BALANCE, CD.STATUS AS CARD_STATUS
FROM CUSTOMER C
INNER JOIN CUSTACCOUNT CA ON CA.CUSTID = C.CUSTID
INNER JOIN CARD CD ON CD.CARDID = C.CARDID;
```

```
SELECT * FROM CUSTOMER_INFORMATION;
```

```
CREATE VIEW EMP_INFORMATION AS
SELECT E.EMPID, E.EMPNAME, PR.SALARY, INS.INS_DURATION
FROM EMPLOYEE E
INNER JOIN PAYROLL PR ON PR.EMPID = E.EMPID
INNER JOIN INSURANCE INS ON INS.EMPID = E.EMPID ORDER BY EMPID;
```

```
SELECT * FROM EMP_INFORMATION;
```



