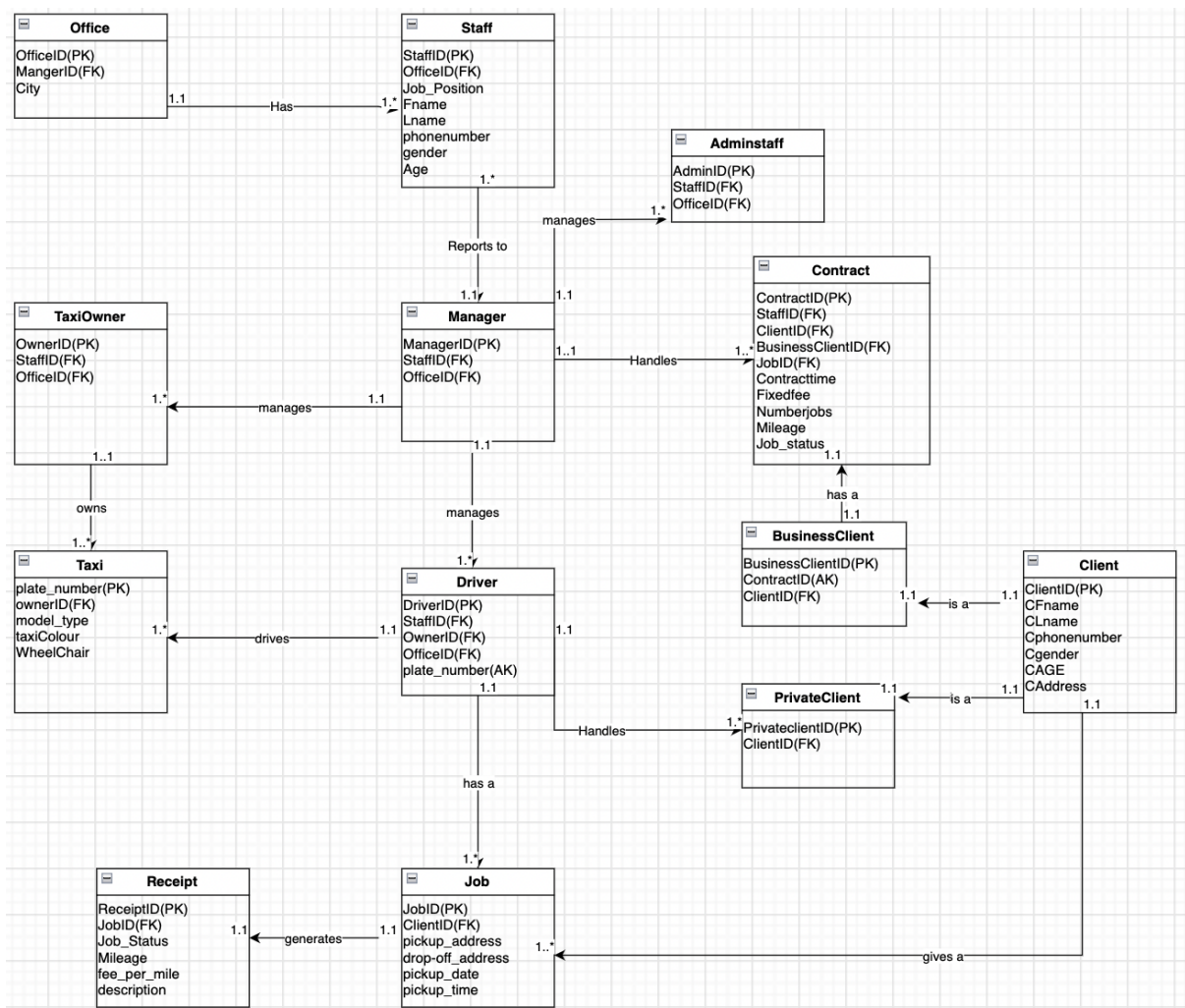# Group Project

Arbind Khaira

Anas Darkaoui

Reyhan Reginald

Raghav Purohit

Part 1:

Office(OfficeID,ManagerID,City)

> **Primary key**: OfficeID

> **Foreign key** ManagerID references Manager(ManagerID)

> **Alternate key**:

Dependencies:-

functional

OfficeID → City, ManagerID

ManagerID → City

Staff(StaffID,OfficeID, Job_Position, Fname, Lname, phonenumber, gender,age)

    Primary key: StaffID

    Foreign key: OfficeID references Office(OfficeID)

    Alternate key:

    Dependencies:

    functional:

    StaffID → OfficeId, Job_Position, Fname,Lname, PhoneNumber, gender, age

    Fname,LastName → StaffIID

    PhoneNumber→ StaffID

Adminstaff(AdminID, staffID, OfficeID)

    Primary key: AdminID

    Foreign key: StaffID, OfficeID references Office(OfficeID) Staff(StaffID)

    Alternate key:

    Dependencies:
    Functional:

    StaffID → AdminID

    StaffID→ OfficeID

Manager(ManagerID,StaffID,OfficeID)

    Primary key: ManagerID

    Foreign key: StaffID,OfficeID (references Office[OfficeID], Staff[StaffID])

    Alternate key:

    Dependencies:

    Functional:

    StaffID → ManagerID

    ManagerID → OfficeID

Taxiowner(OwnerID, StaffID, OfficeID)

    Primary key: OwnerID

    Foreign key: StaffID, OfficeID (references Office[OfficeID] Staff[StaffID])

    Alternate key:

    Dependencies:
    Functional:

    StaffID → OwnerID

Driver(DriverID, StaffID, OfficeID,OwnerID, plate_number)

    Primary key: DriverID

    Foreign key: Staff ID, OwnerID, OfficeID (references Staff[StaffID], Taxiowner[OwnerID] Office[OfficeID])

    Alternate key: plate_number

    Dependencies:

    Functional:

    StaffID → DriverID,OfficeID

    DriverID → StaffID, OfficeID, OwnerID, plate_number

    OwnerID→ OfficeID

    Assumption:

    In some cases, OfficeID will be transitively dependent on DriverID as not all drivers are taxi owners.

Job(JobID, ClientID, pickup_address, dropoff_address, pickup_date, pickup_time)

    Primary key: JobID

    Foreign key: ClientID (references Client[ClientID])

    Alternate key:

    Dependencies:

    Functional:

    JobID → ClientID, pickup_address, dropoff_address, pickup_date, pickup_time

Taxi(plate_number, OwnerID, model_type, taxi_colour, wheelchair)

    Primary key: plate_number

    Foreign key: OwnerID (references TaxiOwner[OwnerID])

Alternate key:

Dependencies:

Functional:

Plate_number → model_type, taxi_colour, wheelchair

Client(ClientID,CFname, CLname, Cphonenumber, Cgender, Cage, CAddress)

    Primary key: ClientID

    Foreign key:

    Alternate key:

    Dependencies:

    Functional:

    ClientID → CFname, CLname, Cphonenumber, Cgender, Cage, CAddress

Privateclient(PrivateClientID, ClientID)

    Primary key: PrivateClientID

    Foreign key: ClientID(references Client[ClientID])

    Alternate key:

    Dependencies:

    Functional:

    ClientID → PrivateClientID

Businessclient(BusinessClientID, ClientID, ContractID)

    Primary key: BusinessClientID

    Foreign key: ContractID,ClientID(references Contract[ContractID], Client[ClientID])

    Alternate key: ContractID

    Dependencies:

    Functional:
    BusinessClientID → ContractID, ClientID

    Assumption:

    One contract per Business client that is updated as new business is done.

Contract(ContractID,ClientID,Contracttime,JobID, BuissnessClientID, StaffID,numberjobs, FixedFee, Mileage, Job_Status)

Primary key: ContractID

Foreign key: StaffID, BusinessClientID,ClientID, JobID (references Staff[StaffID], BusinessClient[BusinessClientID], Client[ClientID], Job[JobID])

Alternate key:

Dependencies:

Functional:

ContractID → numberjobs, Fixedfee, Contracttime, StaffID, BusinessClientID, Mileage, JobID,ClientID, Job_Status

Receipt(ReceiptID, JobID, Job_Status, mileage, fee_per_mile, description)

Primary key: ReceiptID

Foreign key: JobID (references Job[JobID])

Alternate key:

Dependencies:

Functional:

ReceiptID→ Job_Status, mileage, fee_per_mile, description

jobID	pickupDateTime	driverID	dFName	dLName	clientID	cFName	cLName	cAddress
1001	25/07/00.10.00	I456	Jane	Watt	C034	Anne	Way	111 Storrie Road, Paisley
1102	29/07/00.10.00	I456	Jane	Watt	C034	Anne	Way	111 Storrie Road, Paisley
1203	30/07/00.11.00	I344	Tom	Jones	C034	Anne	Way	111 Storrie Road, Paisley
1334	2/08/00.13.00	I666	Karen	Black	C089	Mark	Fields	120 Lady Lane, Paisley
1455	2/08/00.13.00	I957	Steven	Smith	C019	John	Brown	13 Renfrew Road, Paisley
1676	25/08/00.10.00	I344	Tom	Jones	C039	Karen	Worth	34 High Street, Paisley

Dependencies:

Functional:

JobID → pickupDateTime, driverID, clientID
DriverID →dFName, DLName

Transitive:

dLName, ClientID → cFName, cLName, cAddress

driverID	dFName	dLName
I456	Jane	Watt
I344	Tom	Jones
I666	Karen	Black
I957	Steven	Smith
I344	Tom	Jones

clientID	cFName	cLName	cAddress
C034	Anne	Way	111 Storrie Road, Paisley
C089	Mark	Fields	120 Lady Lane, Paisley
C019	John	Brown	13 Renfrew Road, Paisley
C039	Karen	Worth	34 High Street, Paisley

jobID	pickupDateTime	driverID	clientID
1001	25/07/00.10.00	I456	C034
1102	29/07/00.10.00	I456	C034
1203	30/07/00.11.00	I344	C034
1334	2/08/00.13.00	I666	C089
1455	2/08/00.13.00	I957	C019
1676	25/08/00.10.00	I344	C039

Part 2:

```
DROP TABLE Office;
CREATE TABLE Office
    (
    OfficeID INTEGER NOT NULL,
    ManagerID VARCHAR(10),
    City VARCHAR(20),
    primary key(OfficeID)
     );

INSERT INTO Office VALUES (7369, 'G6021', 'Glasgow');
INSERT INTO Office VALUES (6516, 'E2376', 'Edinborough');
INSERT INTO Office VALUES (4683, 'A1055', 'Aberdeen');
INSERT INTO Office VALUES (8963, 'D5618', 'Dundee');
INSERT INTO Office VALUES (6796, 'P3221', 'Perth');
```

```sql
DROP TABLE Staff;
CREATE TABLE Staff
    (
      StaffID VARCHAR(6),
      OfficeID VARCHAR(10),
      Job_Position VARCHAR(25),
      Fname VARCHAR(20),
      Lname VARCHAR(20),
      phonenumber INTEGER,
      gender VARCHAR(1),
      Age INTEGER,
      primary key(StaffID)
      );

INSERT INTO Staff VALUES ('GDO103', '6796','Manager', 'Emily', 'Smith',  312845267, 'F', 35);
INSERT INTO Staff VALUES ('DJE354', '6796', 'Administrative Staff','Ethan', 'Johnson', 414983490, 'M', 65);
INSERT INTO Staff VALUES ('BWE287', '6796', 'Administrative Staff','Ava', 'Garcia', 5067392015, 'F', 23);
INSERT INTO Staff VALUES ('YUE168', '6796', 'Taxi Owner', 'Noah', 'Davis', 5778416839, 'M', 40);
INSERT INTO Staff VALUES ('XYZ123', '6796', 'Taxi Owner/ Driver', 'Sam', 'Deven', 014573482125, 'M', 36);
INSERT INTO Staff VALUES ('PQR234', '6796', 'Driver', 'Adam', 'Stones', 5434858390, 'M', 32);
INSERT INTO Staff VALUES ('ZLO544', '6796', 'Driver', 'Andrew', 'Tate', 5242975129, 'M', 41);

INSERT INTO Staff VALUES ('LOV007', '8963','Manager', 'Ryan', 'Reynolds',  2029182132, 'M', 35);
INSERT INTO Staff VALUES ('ACT385', '8963', 'Administrative Staff','Ryan', 'Gosling', 9309597198, 'M', 28);
INSERT INTO Staff VALUES ('BMW234', '8963', 'Administrative Staff','Trish', 'Ridout', 5056799473, 'F', 24);
INSERT INTO Staff VALUES ('TSP192', '8963', 'Taxi Owner', 'Kim', 'Kardashian', 5054938826, 'F', 45);
```

```sql
INSERT INTO Staff VALUES ('RMO442', '8963', 'Taxi Owner/ Driver', 'Chris', 'Devon', 5056044791, 'M', 42);
INSERT INTO Staff VALUES ('QWE852', '8963', 'Driver', 'Kevin', 'Hart', 2189073755, 'M', 57);

INSERT INTO Staff VALUES ('ABE235', '7369','Manager', 'Red', 'Levin', 4534692168, 'M', 42);
INSERT INTO Staff VALUES ('SAD678', '7369', 'Administrative Staff','Yen', 'Zing', 7853217691, 'M', 39);
INSERT INTO Staff VALUES ('PED678', '7369', 'Administrative Staff','Rachel', 'Terra', 5062453531, 'F', 29);
INSERT INTO Staff VALUES ('YUZ651', '7369', 'Taxi Owner', 'Nolan', 'Denner', 1287689786, 'M', 28);
INSERT INTO Staff VALUES ('XYP123', '7369', 'Taxi Owner/ Driver', 'Radcliff', 'ford', 8989767615, 'M', 46);
INSERT INTO Staff VALUES ('IAS765', '7369', 'Driver', 'Jenny', 'Silvia', 7674561283, 'F', 32);

INSERT INTO Staff VALUES ('ASE285', '4683','Manager', ' Flora', 'Jones',  6723655410, 'F', 52);
INSERT INTO Staff VALUES ('SQW128', '4683', 'Administrative Staff','Simmy', 'Jeet', 8775483587, 'F', 34);
INSERT INTO Staff VALUES ('KWE496', '4683', 'Administrative Staff','Debra', 'Smith', 6748739739, 'F', 41);
INSERT INTO Staff VALUES ('YUP568', '4683', 'Taxi Owner', 'Loveleen', 'Panit', 9867332261, 'F', 35);
INSERT INTO Staff VALUES ('GEQ120', '4683', 'Taxi Owner/ Driver', 'Kaytee', 'Aden', 8689472986, 'F', 57);
INSERT INTO Staff VALUES ('XHQ321', '4683', 'Driver', 'Samuel', 'Vernon', 4245211663, 'M', 30);

INSERT INTO Staff VALUES ('FCB433', '6516','Manager','Xavi', 'Hernandez',  4805496246, 'M', 39);
INSERT INTO Staff VALUES ('ARG010', '6516', 'Administrative Staff','Leonel', 'Messi', 5058372124, 'M', 35);
INSERT INTO Staff VALUES ('SPN810', '6516', 'Administrative Staff','Andres', 'Iniesta', 3478416181, 'M', 38);
```

```sql
INSERT INTO Staff VALUES ('BAG547', '6516', 'Taxi Owner/ Driver',
'Kylie', 'Jenner', 5013974414, 'F', 25);
INSERT INTO Staff VALUES ('OSC361', '6516', 'Driver', 'Leonardo',
'DiCaprio', 5056044791, 'M', 42);
INSERT INTO Staff VALUES ('RMA007', '6516', 'Taxi Owner','Cristiano',
'Ronaldo', 3014713421, 'M', 37);


DROP TABLE Manager;
CREATE TABLE Manager
    (
      ManagerID VARCHAR(4) NOT NULL,
      StaffID VARCHAR(6),
      OfficeID VARCHAR(10),
      primary key(ManagerID)
      );

INSERT INTO Manager VALUES ('M209', 'GDO103', '6796');
INSERT INTO Manager VALUES ('M425', 'LOV007', '8963');
INSERT INTO Manager VALUES ('M863', 'ABE235', '7369');
INSERT INTO Manager VALUES ('M621', 'ASE285', '4683');
INSERT INTO Manager VALUES ('M363', 'FCB433', '6516');


DROP TABLE AdminStaff;
CREATE TABLE AdminStaff
    (
     AdminID VARCHAR(5) NOT NULL,
     StaffID VARCHAR(10),
      OfficeID VARCHAR(10),
      primary key(AdminID)
      );

INSERT INTO AdminStaff VALUES ('AS012','DJE354', '6796');
INSERT INTO AdminStaff VALUES ('AS123','BWE287', '6796');
INSERT INTO AdminStaff VALUES ('AS234','ACT385', '8963');
INSERT INTO AdminStaff VALUES ('AS345','BMW234', '8963');
```

```sql
INSERT INTO AdminStaff VALUES ('AS456','SAD678', '7369');
INSERT INTO AdminStaff VALUES ('AS567','PED678', '7369');
INSERT INTO AdminStaff VALUES ('AS678','SQW128', '4683');
INSERT INTO AdminStaff VALUES ('AS789','KWE496', '4683');
INSERT INTO AdminStaff VALUES ('AS890','ARG010', '6516');
INSERT INTO AdminStaff VALUES ('AS901','SPN810', '6516');


DROP TABLE Driver;
CREATE TABLE Driver
    (
      DriverID VARCHAR(4) NOT NULL,
      StaffID VARCHAR(6),
      OfficeID VARCHAR(10),
      OwnerID VARCHAR(6),
      PlateNumber VARCHAR(6),
      primary key(DriverID)
      );

INSERT INTO Driver VALUES ('D227', 'XYZ123', '6796', '234FDE', 'Q22WWW');
INSERT INTO Driver VALUES ('D715', 'ZLO544', '6796', '123FRD', 'S69HNP');
INSERT INTO Driver VALUES ('D849', 'PQR234', '6796', '', 'A11SSS');
INSERT INTO Driver VALUES ('D439', 'RMO402', '8963', '123HBF', 'F55YYY');
INSERT INTO Driver VALUES ('D656', 'QWE852', '8963', '', 'A33HHH');
INSERT INTO Driver VALUES ('D583', 'XYP123', '7369', '691KPQ', 'H00VVV');
INSERT INTO Driver VALUES ('D604', 'IAS765', '7359', '', 'G44LLL');
INSERT INTO Driver VALUES ('D657', 'XHQ321', '4683', '', 'N77RRR');
INSERT INTO Driver VALUES ('D498', 'GEQ120', '4683', '123GPT','G88PPP');
INSERT INTO Driver VALUES ('D267', 'BAG547', '6516', '354WEP','J11MMM');
INSERT INTO Driver VALUES ('D153', 'OSC361', '6516', '', 'L55GGG');
```

```sql
DROP TABLE TaxiOwner;
CREATE TABLE TaxiOwner
    (
      OwnerID VARCHAR(10) NOT NULL,
      StaffID VARCHAR(10),
      OfficeID INTEGER,
      primary key(OwnerID)
      );

INSERT INTO TaxiOwner VALUES ('123FRD','YUE168', 6796);
INSERT INTO TaxiOwner VALUES ('234FDE','XYZ123', 6796);
INSERT INTO TaxiOwner VALUES ('651ASW','TSP192', 8963);
INSERT INTO TaxiOwner VALUES ('123HBF','RMO442', 8963);
INSERT INTO TaxiOwner VALUES ('659WWS','YUZ651', 7369);
INSERT INTO TaxiOwner VALUES ('691KPQ','XYP123', 7369);
INSERT INTO TaxiOwner VALUES ('123HPW','YUP568', 4683);
INSERT INTO TaxiOwner VALUES ('123GPT','GEQ120', 4683);
INSERT INTO TaxiOwner VALUES('354WEP','BAG547',6516);
INSERT INTO TaxiOwner VALUES ('354FPQ','RMA007', 6516);


DROP TABLE Taxi;
CREATE TABLE Taxi
    (
      PlateNumber VARCHAR(10) NOT NULL,
      OwnerID VARCHAR(10),
      ModelType VARCHAR(10),
      TaxiColour VARCHAR(12),
      Wheelchair VARCHAR(3),
      primary key(PlateNumber)
      );

INSERT INTO Taxi VALUES ('A11SSS', '123FRD', 'SUV','BLACK', 'NO');
INSERT INTO Taxi VALUES ('S69HNP','123FRD', 'SUV','GREEN', 'NO');
INSERT INTO Taxi VALUES ('Q22WWW', '234FDE',
'SEDAN','BLUE','NO');
INSERT INTO Taxi VALUES ('A33HHH', '651ASW', 'SUV','GREY', 'NO');
```

```sql
INSERT INTO Taxi VALUES ('F55YYY', '123HBF',
'SEDAN','BLACK','NO');
INSERT INTO Taxi VALUES ('G44LLL', '659WWS', 'SUV','GREEN','NO');
INSERT INTO Taxi VALUES ('H00VVV', '691KPQ', 'SEDAN','RED','NO');
INSERT INTO Taxi VALUES ('N77RRR', '123HPW', 'SUV','RED', 'YES');
INSERT INTO Taxi VALUES ('G88PPP', '123GPT',
'SEDAN','YELLOW','YES');
INSERT INTO Taxi VALUES ('J11MMM', '354WEP',
'SEDAN','BLUE','YES');
INSERT INTO Taxi VALUES ('L55GGG','354FPQ',
'SEDAN','YELLOW','NO');


DROP TABLE Client;
CREATE TABLE Client
     (
       ClientID VARCHAR(5) NOT NULL,
       CFName VARCHAR(10),
       CLname VARCHAR(10),
       Cphonenumber INTEGER,
       Cgender VARCHAR(2),
       CAGE INTEGER,
       CAddress VARCHAR(50),
       primary key(ClientID)
       );

INSERT INTO Client VALUES('CD184','Sahil','Sidhu',
5434858676,'M',42, '12345 Scott ave, Glasgow');
INSERT INTO Client VALUES('CD286','Vernita','Sam',
5434833231,'F',61, '32 St Andrews Crescent, Glasgow');
INSERT INTO Client VALUES('CD682','Arbind','Khaira',
5434764562,'M',56,'34 Main Street, Edinborough');
INSERT INTO Client VALUES('CD276','Rachal','Sidhu',
5438764341,'F',19, '34 Wicksteed Close, Edinborough');
INSERT INTO Client VALUES('CD123','Shawn','Zenin',
5433437442,'M',51,'18  Stones Close, Aberdeen');
```

```sql
INSERT INTO Client VALUES('CD387','Simran','Sadhu',
5434811122,'F',24, '68  Althorp Park, Aberdeen');
INSERT INTO Client VALUES('CD784','Melvin','Thomas',
5434844421,'M', 26, ' 54 Porters Close, Dundee');
INSERT INTO Client VALUES('CD453','Sanyal','Rajesh',
5434990006,'F', 58,'34  Brooke Close, Dundee');
INSERT INTO Client VALUES('CD773','Aaron','Samuel',
5436724489,'M',25,'20  Oak Street,Perth');
INSERT INTO Client VALUES('CD832','Elizabeth','Thompson',
5434374330,'F',42, '47 Wheatley Close,Perth');


DROP TABLE BusinessClient;
CREATE TABLE BusinessClient
    (
      BusinessClientID VARCHAR(6) NOT NULL,
      ClientID VARCHAR(10),
      ContractID VARCHAR(7),
      primary key(BusinessclientID)
      );

INSERT INTO BusinessClient VALUES('BCID98','CD184','CT1');
INSERT INTO BusinessClient VALUES('BCID23','CD276','CT2');
INSERT INTO BusinessClient VALUES('BCID54','CD123','CT3');
INSERT INTO BusinessClient VALUES('BCID85','CD453','CT4');
INSERT INTO BusinessClient VALUES('BCID11','CD773','CT5');


DROP TABLE PrivateClient;
CREATE TABLE PrivateClient
    (
      PrivateClientID VARCHAR(10) NOT NULL,
      ClientID VARCHAR(10),
      primary key(PrivateClientID)
      );
INSERT INTO PrivateClient VALUES('PCID40','CD286');
INSERT INTO PrivateClient VALUES('PCID50','CD682');
```

```
INSERT INTO PrivateClient VALUES('PCID14','CD387');
INSERT INTO PrivateClient VALUES('PCID21','CD784');
INSERT INTO PrivateClient VALUES('PCID25','CD832');


DROP TABLE Job;

CREATE TABLE Job

    (

      JobID VARCHAR(10),

      ClientID VARCHAR(10),

      pickup_address VARCHAR(50),

      dropoff_address VARCHAR(50),

      pickup_date DATE,

      pickup_time TIMESTAMP,

      primary key(JobID)

      );


INSERT INTO Job VALUES('J6453','CD184','12345 Scott ave,
Glasgow','12 High Street,
Glasgow',TO_Date('2023-09-05','YYYY-MM-DD'),TO_TIMESTAMP('202
3-09-05 09:00:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J3216','CD286','32 St Andrews Crescent,
Glasgow','56 Castle Road,
Perth',TO_Date('2023-09-23','YYYY-MM-DD'),TO_TIMESTAMP('2023-09
-23 13:30:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J3173','CD682','91 George Street,
Aberdeen','34 Main Street,
Edinborough',TO_Date('2023-12-28','YYYY-MM-DD'),TO_TIMESTAMP('
2023-12-28 17:45:00','YYYY-MM-DD HH24:MI:SS'));
```

```sql
INSERT INTO Job VALUES('J1853','CD276','34 Wicksteed Close,
Edinborough','17 Whitehall Crescent,
Dundee',TO_Date('2023-01-03','YYYY-MM-DD'),TO_TIMESTAMP('2023-
01-03 10:15:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J7643','CD123','11 Union Terrace,
Aberdeen','18 Stones Close,
Aberdeen',TO_Date('2023-12-06','YYYY-MM-DD'),TO_TIMESTAMP('202
3-12-06 14:00:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J5092','CD387','33 Tay Street, Perth','68
Althorp Park,
Aberdeen',TO_Date('2023-06-07','YYYY-MM-DD'),TO_TIMESTAMP('202
3-06-07 19:30:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J2374','CD784','54 Porters Close,
Dundee','56 Lochee Road,
Dundee',TO_Date('2023-10-11','YYYY-MM-DD'),TO_TIMESTAMP('2023-
10-11 07:00:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J8961','CD453','16 Sauchiehall Lane,
Glasgow','34 Brooke Close,
Dundee',TO_Date('2023-03-15','YYYY-MM-DD'),TO_TIMESTAMP('2023-
03-15 08:30:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J5516','CD773','20 Oak Street,Perth','31
South Methven Street,
Perth',TO_Date('2023-05-17','YYYY-MM-DD'),TO_TIMESTAMP('2023-05
-17 12:30:00','YYYY-MM-DD HH24:MI:SS'));

INSERT INTO Job VALUES('J2095','CD832','47 Wheatley
Close,Perth','42 Hanover Street,
Edinburgh',TO_Date('2023-02-09','YYYY-MM-DD'),TO_TIMESTAMP('20
23-02-09 21:30:00','YYYY-MM-DD HH24:MI:SS'));



DROP TABLE Receipt;

CREATE TABLE Receipt
    (
        ReceiptID VARCHAR(10) NOT NULL,
        JobID VARCHAR(10),
```

```sql
        Job_Status VARCHAR(20),

        Mileage FLOAT,

        FEE_PER_MILE FLOAT,

        Description VARCHAR(50),

        primary key(ReceiptID)

        );


INSERT INTO Receipt Values('R001','J3216','Cancelled',20,0.50,'Customer cancelled');

INSERT INTO Receipt Values('R002','J3173','Completed',50,0.60,'dropped off at customer's requested location');

INSERT INTO Receipt Values('R003','J5092','Completed',60,0.65,'dropped off at customer's requested location');

INSERT INTO Receipt Values('R004','J5092','Completed',70,0.5,'dropped off at customer's requested location');

INSERT INTO Receipt Values('R005','J5092','Completed',30,0.55,'dropped off at customer's requested location');

INSERT INTO Receipt Values('R006','J5092','Completed',54,0.80,'dropped off at customer's requested location');

INSERT INTO Receipt Values('R007','J2374',' Completed',70,0.80,'dropped off at customer's requested location');

INSERT INTO Receipt Values('R008','J2095','Completed',100,0.99,'dropped off at customer's requested location');

DROP TABLE Contract;

CREATE TABLE Contract

    (

            ContractID VARCHAR(10) NOT NULL,

            ClientID VARCHAR(10),
```

```sql
            Contracttime VARCHAR(20),

            JobID VARCHAR(10),

            BusinessClientID VARCHAR(10),

            StaffID VARCHAR(10),

            numberjobs INTEGER,

            Fixedfee VARCHAR(10),

            Mileage FLOAT,

            Job_Status VARCHAR(20),

            primary key(ContractID)

    );
INSERT INTO Contract Values('CT1','CD184','3
months','J6453','BCID98','ABE235',30,0.45,450,'Completed');

INSERT INTO Contract Values('CT2','CD276','4
months','J1853','BCID23','FCB433', 40,0.50,600,'Completed');

INSERT INTO Contract Values('CT3','CD123','5
months','J7643','BCID54','ASE285',50,0.55,1000,'Completed');

INSERT INTO Contract Values('CT4','CD453', '6 months',
'J8961','BCID85','LOV007',60,0.60,1200,'Completed');

INSERT INTO Contract Values('CT5','CD773','1
month','J5516','BCID11','GDO103',15,0.43,255,'Completed');
```

Assumptions:

One of the things we were confused about is the charges for private and business clients. It is only mentioned to note the charge for private clients but nothing for the business clients. So we decided to keep a fee(might be variable ie. according to the metre of the driver that day) for the private client and for the business client a fixed fee per mile will be charged.Also in contract the mileage is the total number of miles that will be driven for all the number of jobs.

Part 3:

A) The names and phone numbers of the Managers at each office.

    Select Fname,Lname,phonenumber,officeID
    from Staff
    where job_position = 'Manager';

FNAME	LNAME	PHONENUMBER	OFFICEID
Emily	Smith	312845267	6796
Ryan	Reynolds	2029182132	8963
Red	Levin	4534692168	7369
Flora	Jones	6723655410	4683
Xavi	Hernandez	4805496246	6516

B) The names of all female drivers based in the Glasgow office.

    Select Fname,Lname

    from Staff

    where Gender = 'F' and job_position= 'Driver' and OfficeID= 7369;

FNAME	LNAME
Jenny	Silvia

C) The total number of staff at each office.

SELECT Staff.OfficeID,Office.City, COUNT(*) AS Num_Employees

FROM Staff

JOIN Office ON Staff.OfficeID = Office.OfficeID

GROUP BY Office.City,Staff.OfficeID;

OFFICEID	CITY	NUM_EMPLOYEES
4683	Aberdeen	6
8963	Dundee	6
7369	Glasgow	6
6516	Edinborough	6
6796	Perth	7

D) The details of all taxis at the Glasgow office.

SELECT *
FROM Taxi T
JOIN TaxiOwner Town ON Town.OwnerID = t.OwnerID
JOIN Office o ON o.OfficeID = Town.OfficeID
WHERE o.city = 'Glasgow';

PLATENUMBER	OWNERID	MODELTYPE	TAXICOLOUR	WHEELCHAIR	OWNERID	STAFFID	OFFICEID	OFFICEID	MANAGERID	CITY
G44LLL	659WWS	SUV	GREEN	NO	659WWS	YUZ651	7369	7369	G6021	Glasgow
H00VVV	691KPQ	SEDAN	RED	NO	691KPQ	XYP123	7369	7369	G6021	Glasgow

E) The total number of W registered taxis.

Select count(WheelChair) as "Total-Number-Of-W"

from Taxi

where WheelChair= 'YES';

Total-Number-Of-W
3

F) The number of drivers allocated to each taxi.

Select count(DriverID) as "Drivers", PlateNumber as "Taxi_Platenumber"

from Driver

group by PlateNumber;

Drivers	Taxi_Platenumber
1	L55GGG
1	J11MMM
1	F55YYY
1	A33HHH
1	G44LLL
1	N77RRR
1	G88PPP
1	Q22WWW
1	A11SSS
1	S69HNP
1	H00VVV

G) The name and number of owners with more than one taxi.

```
SELECT s.Fname || ' ' || s.Lname as T_OwnerName, s.PhoneNumber,
COUNT(*) AS num_taxis
FROM TaxiOwner o
JOIN Staff s ON o.StaffID = s.StaffID
JOIN Taxi t ON o.OwnerId = t.OwnerID
GROUP BY s.Fname,s.Lname,s.PhoneNumber
HAVING COUNT(*) > 1;
```

T_OWNERNAME	PHONENUMBER	NUM_TAXIS
Noah Davis	5778416839	2

H) The full address of all business clients in Glasgow

        SELECT BC.BusinessClientID, C.CAddress
        FROM Client C
        INNER JOIN BusinessClient BC ON BC.ClientID = C.ClientID
        WHERE C.CAddress LIKE '%Glasgow';

BUSINESSCLIENTID	CADDRESS
BCID98	12345 Scott ave, Glasgow

I) The details of the current contracts with business clients in Glasgow.

        SELECT *
        FROM Contract Cn
        JOIN BusinessClient bc ON Cn.ClientID = bc.ClientID
        JOIN Client C ON bc.ClientID = C.ClientID
        WHERE c.CAddress LIKE '%Glasgow' AND Cn.Job_Status = 'Completed';

CONTRACTID	CLIENTID	CONTRACTTIME	JOBID	BUSINESSCLIENTID	STAFFID	NUMBERJOBS	FIXEDFEE	MILEAGE	JOB_STATUS	BUSINESSCLIENTID
CT1	CD184	3 months	J6453	BCID98	ABE235	30	.45	450	Completed	BCID98

CLIENTID	CFNAME	CLNAME	CPHONENUMBER	CGENDER	CAGE	CADDRESS
CD184	Sahil	Sidhu	5434858676	M	42	12345 Scott ave, Glasgow

Both the Screenshots are from the same row of the same Client. The table row was too big to fit into one screenshot

J) The total number of private clients in each city

        SELECT CAddress, COUNT(*) No_Of_PrivateClient
        FROM Client C
        JOIN PrivateClient PC ON PC.ClientID = C.ClientID
        GROUP BY CAddress;

CADDRESS	NO_OF_PRIVATECLIENT
32 St Andrews Crescent, Glasgow	1
68 Althorp Park, Aberdeen	1
54 Porters Close, Dundee	1
47 Wheatley Close,Perth	1
34 Main Street, Edinborough	1

L) The names of drivers who are over 55 years old.

Select Fname,Lname
from Staff
Where (job_position= 'Driver'or job_position = 'Taxi Owner/ Driver') and age>55;

FNAME	LNAME
Kevin	Hart
Kaytee	Aden