

1. Write SQL statement select to display customer Full Name in one column, their City and Amount of sales. We need data only for customers whose mother has brown eyes.

Ans:

```
Select concat(a.FirstName, " ", a.LastName) Full_Name, b.City, c.Amount from Customer a
Inner join Sales c
On a.id = c.CustomerID
Inner join Address b
On b.ID = c.CityID
Inner join Customer m
On a.MotherIDNumber = m.IDNumber
Where EyeColor = 'Brown';
```

2. Write SQL statement select to display First Name and Last Name of users which ordered 3 and more courses. Use tables from below.

```
Select a.FirstName, a. LastName, count(b.CourseID) courses from `User Table` a
Inner join `Order Table` b
on a.ID = b.UserID
Group by a.FirstName, a. LastName
Having count(b.CourseID) >=3;
```

3. What will be the result of the select below

```
SELECT
SUM(p.Amount) AS Amount
FROM
Payments p
INNER JOIN Clients c ON p.ClientId = c.Id
INNER JOIN Address a ON c.Id = a.ClientId
WHERE
c.Name LIKE '%iro'
Ans: 500
```

PYTHON questions:

1. What is tuple in Python? What is the difference between list and tuple?

Ans: Tuple is a data structure in Python which stores data/items.

Tuple is enclosed in round bracket and contain ordered sequence of values where values inside the tuple can not be changed.

Lists are enclosed in square brackets and the data inside the list can be modified: added, removed, changed.

2. What are the rules for a local and global variable in Python?

Ans: Local Variables are defined/declared within the function/user-defined functions and are accessible inside the same function. If we try to access outside the defined function, this will throw an error.

Global Variables are defined outside all functions and are accessible across the program/function and module.

3.

4. Write a method to open a text file and display its content?

Ans: `Filename = r'location/filename.txt'`

`Lines = [l.strip() for l in open(Filename).readlines()]`

5. You have two lists: `strList = ["Vishesh", "For", "Python"]` and `valList = [1, 2]` for the first two tasks

and one list `valList = [1, 2, 3]` for third task. Write the syntax so you will get these results:

1) `{'key2': ['Vishesh', 'For', 'Python'], 'key1': [1, 2]}`

2) `{'key1': [1, 2, ['vishesh', 'For', 'python']]}`

3) `{'1': [1, 2], '3': [3, 4], '2': [2, 3]}` # Creating a dictionary of lists using list comprehension.

Ans:

```
1. strList = ["Vishesh", "For", "Python"]
   valList = [1, 2]
   {'key2': strList, "key1": valList}
```

```
2. Var = valList + [strList]
   {'key1': Var}
```

```
3. valList = [1, 2, 3]
   result = {str(key): [key, key + 1] for key in valList}
```