Answer Sheet by Pejman: Test 2

A

A schema describing salesperson, customers and their orders is defined as follows: SALESPERSON (id, full_name, first_name, middle_name, Last_name, age, salary) ORDERS (number, order_date, cust_id, salesperson_id, amount) CUSTOMER (id, name, city, industry_type) Write the following queries in SQL

i) The top 3 months with the most number of orders. Also provide the corresponding total order value.

```
SELECT
  DATE_TRUNC('month', order_date) AS month,
  COUNT(number) AS num_orders,
  SUM(amount) AS total_order_value
FROM ORDERS
GROUP BY 1
ORDER BY 2 DESC
LIMIT 3;
```

ii) List down the salespersons' detail and their latest order_date for Q1 2014

```
SELECT
  S.id,
  S.full_name,
  S.first_name,
  S.middle_name,
  S.last_name,
  S.age,
  S.salary,
  MAX(O.order_date) AS latest_order_date
FROM SALESPERSON AS S
```

```
JOIN ORDERS AS O ON S.id = O.salesperson_id
WHERE O.order_date BETWEEN '2014-01-01' AND '2014-03-31'
GROUP BY 1,2,3,4,5,6,7;
```

iii) Find all duplicate customer data by name and how many times it is duplicated

```
SELECT
  name,
  COUNT(*) AS num_duplicates
FROM CUSTOMER
GROUP BY name
HAVING COUNT(*) > 1;
```

iv) Total order amount for each salesperson for the year 2012

```
SELECT
  S.id,
  S.full_name,
  SUM(O.amount) AS total_order_amount
FROM SALESPERSON AS S
JOIN ORDERS AS O ON S.id = O.salesperson_id
WHERE O.order_date BETWEEN '2012-01-01' AND '2012-12-31'
GROUP BY 1,2;
```

v) Find customers' name for salesperson Katy and John

```
SELECT
  C.name
FROM CUSTOMER AS C
JOIN ORDERS AS O ON C.id = O.cust_id
JOIN SALESPERSON AS S ON O.salesperson_id = S.id
WHERE S.first_name IN ('Katy', 'John');
```

vi) For salespersons with id number 4, 7 and 8 list out the most common industry amongst their customer base.

```
SELECT
  S.id,
  S.full_name,
  C.industry_type,
  COUNT(*) AS num_customers
FROM SALESPERSON AS S
JOIN ORDERS AS O ON S.id = O.salesperson_id
JOIN CUSTOMER AS C ON O.cust_id = C.id
WHERE S.id IN (4,7,8)
GROUP BY 1,2,3
ORDER BY 1,4 DESC;
```

B

Based on data in excel Data.xls, write the following queries in SQL

i) Find individuals who are interested in Aviation but are not a pilot

```
SELECT DISTINCT [First Name], [Last Name]
FROM table_name
WHERE aviation_interest = 'yes'
AND pilot_status = 'no';
```

ii) Find individuals who have an interest in Classical Music

```
SELECT DISTINCT [First Name], [Last Name]
FROM table_name
WHERE Hobby LIKE '%classical music%' or hobby=’Classical Music’
```