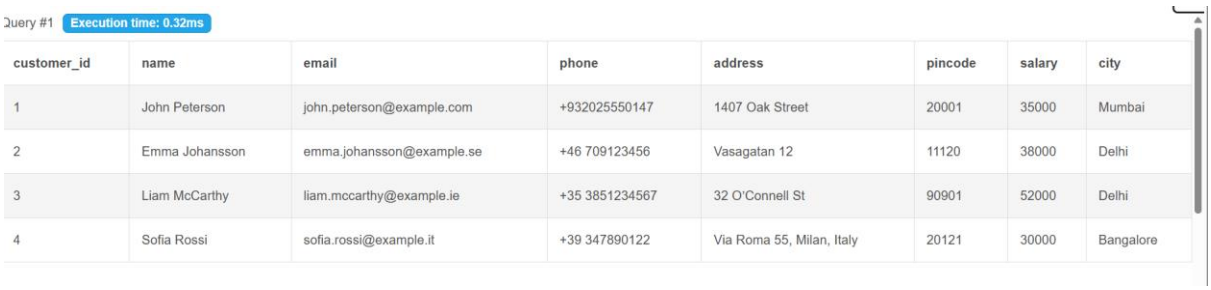
Task 4: Aggregate Functions and Grouping

---1. Table creation and insertion of data----

```
CREATE TABLE `customer` (
  `customer_id` int(11)  primary key auto_increment NOT NULL,
  `name` varchar(50) NOT NULL,
  `email` varchar(100) NOT NULL,
  `phone` varchar(20) NOT NULL,
  `address` text NOT NULL,
  `pincode` varchar(11) NOT NULL,
   `salary` int NOT NULL,
   `city` varchar(50) NOT NULL
) ;
```

```
INSERT INTO customer (customer_id,name,email,phone,address,pincode,salary,city)
VALUES
(NULL,'John Peterson','john.peterson@example.com','+932025550147','1407 Oak Street','20001',35000,'Mumbai'),
(NULL,'Emma Johansson','emma.johansson@example.se','+46 709123456','Vasagatan 12','11120',38000,'Delhi'),
(NULL,'Liam McCarthy','liam.mccarthy@example.ie','+35 3851234567','32 O'Connell St','90901',52000,'Delhi'),
(NULL,'Sofia Rossi','sofia.rossi@example.it','+39 347890122','Via Roma 55, Milan, Italy','20121',30000,'Bangalore');
```



Query #1 Execution time: 0.32ms

customer_id	name	email	phone	address	pincode	salary	city
1	John Peterson	john.peterson@example.com	+932025550147	1407 Oak Street	20001	35000	Mumbai
2	Emma Johansson	emma.johansson@example.se	+46 709123456	Vasagatan 12	11120	38000	Delhi
3	Liam McCarthy	liam.mccarthy@example.ie	+35 3851234567	32 O'Connell St	90901	52000	Delhi
4	Sofia Rossi	sofia.rossi@example.it	+39 347890122	Via Roma 55, Milan, Italy	20121	30000	Bangalore

---2. SUM() Function

SELECT SUM(salary) AS SUM_OF_SALARY FROM customer ;

Query #2 Execution time: 0.14ms

SUM_OF_SALARY
155000

--3. COUNT() Function

SELECT COUNT (customer_id) AS TOTAL_NUMBER_OF_CUSTOMER FROM customer;

Query #3 Execution time: 0.11ms

TOTAL_NUMBER_OF_CUSTOMER
4

SELECT pincode, LENGTH(pincode) AS digit_count FROM customer;

Query #4 Execution time: 0.14ms

pincode	digit_count
20001	5
11120	5
90901	5
20121	5

--4. AVG () Function

SELECT AVG(salary) AS AVG_OF_SALARY FROM customer;

Query #5 Execution time: 0.1ms

AVG_OF_SALARY
38750.0000

--5. GROUP BY () Function

SELECT city, COUNT(*) AS city_group

FROM customer

GROUP BY city;

Query #6 Execution time: 0.18ms

city	city_group
Bangalore	1
Delhi	2
Mumbai	1

SELECT city, COUNT(*) AS city_group from customer GROUP BY(city) HAVING city='delhi';

Query #7 Execution time: 0.18ms

city	city_group
Delhi	2

--6. GROUP BY() Function using HAVING Clause

```
SELECT city, SUM(salary) AS total_salary

FROM customer

GROUP BY city

HAVING SUM(salary) > 50000;
```