Practical No 7

- **GROUP By Clause:**

```
CREATE TABLE CUSTOMERS (
  ID INT NOT NULL,
  NAME VARCHAR (20) NOT NULL,
  AGE INT NOT NULL,
  ADDRESS CHAR (25),
  SALARY DECIMAL (18, 2),
  PRIMARY KEY (ID)
);
INSERT INTO CUSTOMERS VALUES
(1, 'Ramesh', 32, 'Ahmedabad', 2000.00),
(2, 'Khilan', 25, 'Delhi', 1500.00),
(3, 'Kaushik', 23, 'Kota', 2000.00),
(4, 'Chaitali', 25, 'Mumbai', 6500.00),
(5, 'Hardik', 27, 'Bhopal', 8500.00),
(6, 'Komal', 22, 'Hyderabad', 4500.00),
(7, 'Muffy', 24, 'Indore', 10000.00);
```

CUSTOMERS

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000
2	Khilan	25	Delhi	1500
3	Kaushik	23	Kota	2000
4	Chaitali	25	Mumbai	6500
5	Hardik	27	Bhopal	8500
6	Komal	22	Hyderabad	4500
7	Muffy	24	Indore	10000

The following SQL query groups the CUSTOMERS table based on AGE and counts the number of records in each group

```
SELECT AGE, COUNT(Name) FROM CUSTOMERS GROUP BY AGE;
```

Output

AGE	COUNT(Name)
22	1
23	1
24	1
25	2
27	1
32	1

- **Having Clause :**

```
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  PRIMARY KEY (ID)
);
INSERT INTO CUSTOMERS VALUES
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(6, 'Komal', 22, 'Hyderabad', 4500.00),
(7, 'Muffy', 24, 'Indore', 10000.00);
```

CUSTOMERS

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000
2	Khilan	25	Delhi	1500
3	Kaushik	23	Kota	2000
4	Chaitali	25	Mumbai	6500
5	Hardik	27	Bhopal	8500
6	Komal	22	Hyderabad	4500
7	Muffy	24	Indore	10000

Now, we are grouping the records of the CUSTOMERS table based on the columns ADDRESS and AGE and filtering the groups where the AGE value is less than 25.

```
SELECT ADDRESS, AGE, MIN(SALARY) AS MIN_SUM
FROM CUSTOMERS
GROUP BY ADDRESS, AGE HAVING AGE > 25;
```

ADDRESS	AGE	MIN_SUM
Ahmedabad	32	2000
Bhopal	27	8500

- **Order BY Clause :**

```
CREATE TABLE CUSTOMERS (
  ID INT NOT NULL,
  NAME VARCHAR (20) NOT NULL,
  AGE INT NOT NULL,
  ADDRESS CHAR (25),
  SALARY DECIMAL (18, 2),
  PRIMARY KEY (ID)
);
insert INTO CUSTOMERS VALUES
(1, 'Ramesh', 32, 'Ahmedabad', 2000.00),
(2, 'Khilan', 25, 'Delhi', 1500.00),
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(4, 'Chaitali', 25, 'Mumbai', 6500.00),
(5, 'Hardik', 27, 'Bhopal', 8500.00),
(6, 'Komal', 22, 'Hyderabad', 4500.00),
(7, 'Muffy', 24, 'Indore', 10000.00);
```

CUSTOMERS

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000
2	Khilan	25	Delhi	1500
3	Kaushik	23	Kota	2000
4	Chaitali	25	Mumbai	6500
5	Hardik	27	Bhopal	8500
6	Komal	22	Hyderabad	4500
7	Muffy	24	Indore	10000

```
SELECT * FROM CUSTOMERS ORDER BY NAME ASC;
```

Output

ID	NAME	AGE	ADDRESS	SALARY
4	Chaitali	25	Mumbai	6500
5	Hardik	27	Bhopal	8500
3	Kaushik	23	Kota	2000
2	Khilan	25	Delhi	1500
6	Komal	22	Hyderabad	4500
7	Muffy	24	Indore	10000
1	Ramesh	32	Ahmedabad	2000