

# DBMS LAB

## Assignment No – 5

➤ *Write the SQL commands to create the following relational schemas:*

**Customer ( cust\_id, cust\_name, annual\_revenue, cust\_type )**

Cust\_id must be between 100 and 10,000.

Cust\_type must be 'MANUFACTURER', 'WHOLESALE', or 'RETAILER'.

**Shipment ( shipment\_no, cust\_id, weight, truck\_no, destination, ship\_date )**

Foreign key: cust\_id references customer on delete cascade, truck\_no references truck on delete set null, destination references city.

Weight must be under 1000.

**Truck ( truck\_no, driver\_name )**

**City ( city\_name, population )**

➤ *Express the following queries in SQL:*

- 1) Give names of customer who have sent packages (shipments) to Kolkata, Chennai and Mumbai. (*You have to solve this problem using set theoretic operation*)
- 2) List the names of the driver who have delivered shipments weighing over 200 pounds.
- 3) Retrieve the maximum and minimum weights of the shipments. Rename the output as Max\_Weight and Min\_Weight respectively.
- 4) For each customer, what is the average weight of package sent by the customer?
- 5) List the names and populations of cities that have received shipments weighing over 100 pounds.
- 6) List cities that have received shipments from every customer.
- 7) For each city, what is the maximum weight of a package sent to that city?
- 8) List the name and annual revenue of customers whose shipments have been delivered by truck driver 'IQBAL'.
- 9) List drivers who have delivered shipments to every city.
- 10) For each city, with population over 1 million, what is the minimum weight of a package sent to that city.