**Set 1**

Given the bank database that contains the following tables (primary keys are underlined and foreign keys are preceded with #)

Student (sID, name, CGPA, institute)

Club (clubID, clubName, #sID, fee)

MemberOf (#clubID, #sID, dateOfJoin)

|  |  |  |  |
| --- | --- | --- | --- |
| sID | name | CGPA | Institute |
| 1 | Ram | 5 | TU |
| 2 | Rohan | 5.7 | PEC |
| 3 | Ajay | 7.8 | TU |
| 4 | Ankit | 9.8 | TU |
| 5 | Govind | 7.5 | PEC |
| 6 | Garima | 7 | TU |
| 7 | Kirat | 6 | TU |
| 8 | Gurinder | 3 | PEC |
| 9 | Kiran | 4 | TU |
| 10 | Heema | 10 | TU |

|  |  |  |  |
| --- | --- | --- | --- |
| clubID | clubName | sID | fee |
| 101 | Adventure | 1 | 1000 |
| 102 | Dance | 5 | 3000 |
| 103 | Izhar | 5 | 500 |
| 104 | Developer | 4 | 1000 |
| 105 | Izhar | 2 | 2000 |
| 106 | Mudra | 3 | 4000 |
| 107 | Dance | 5 | 1000 |
| 108 | Coderz | 5 | 100 |
| 109 | Izhar | 6 | 5000 |
| 110 | Coderz | 5 | 400 |

1. Create above tables by applying constraint at table level and insert records.
2. Display the name of the Institute whose student got maximum CGPA
3. Count the name of the students belonging to TU
4. Display the average fee for each club Name for sID 5, but only display those club names where total fee is greater than 2000 & display the output in descending order of fee.
5. Display the club Names which are joined by more than 2 students.
6. Display total number of joining in “Izhar” for each Student.
7. Drop primary key constraint i.e., clubID from Club table.
8. Add new column “phone” in Student table. Add constraint “unique” on phone in Student table. Constraint should be named as “Stu\_phone\_uk”.

**Set 2**

Given the following Product database (primary keys are underlined and foreign keys are preceded by #)

Supplier (sID, name, city)

Part (pID, partname, color, price, #sID)

Catalog (sID, pID, material, design)

|  |  |  |
| --- | --- | --- |
| sID | name | city |
| 1 | Ram | Patiala |
| 2 | Rohan | Mohali |
| 3 | Ajay | Chandigarh |
| 4 | Ankit | Mohali |
| 5 | Govind | Patiala |
| 6 | Garima | Moga |
| 7 | Kirat | Rampura |
| 8 | Gurinder | Bathinda |
| 9 | Kiran | Mohali |
| 10 | Heema | Patiala |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| pID | partName | color | price | sID |
| 201 | A | red | 10,000 | 2 |
| 202 | D | red | 3000 | 1 |
| 203 | I | blue | 500 | 3 |
| 204 | D | black | 1000 | 4 |
| 205 | Z | green | 2000 | 3 |
| 206 | M | grey | 4000 | 3 |
| 207 | D | red | 1000 | 2 |
| 208 | C | black | 100 | 4 |
| 209 | M | blue | 5000 | 4 |
| 210 | C | red | 40,000 | 3 |

1. Create tables by applying constraint at table level and insert records.
2. List the suppliers who belong to city having last second char as ‘l’.
3. Display the part name supplied by more than 2 suppliers.
4. Display the name of the city having maximum suppliers.
5. Display the total number of parts for each supplier, but display only those suppliers who supply more than two parts. Display the output in descending order of total number of parts.
6. Display the total price for each part names for each supplier
7. Drop foreign key constraint i.e., sID from the Part table.
8. Add “check” Constraint on price attribute of Part table, i.e., price must be positive value. Constraint should be named as “Part\_price\_ch”.