**Bahria University, Lahore Campus**

Department of Computer Sciences

Lab Journal 05

**(Fall 2023)**

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| Course: | **Database Management System Lab** | Date: |
| Course Code: | CSL 220 | Max Marks: |
| Faculty’s Name: |  | Lab Engineer: |

Name: affan ahmad \_\_\_\_\_\_\_\_\_\_\_\_ Enroll No: \_03-134221-003\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

OBJECTIVE:

**The objective of this lab session is to learn Set operations Union, intersection, Except and Aggregate Functions**

|  |  |
| --- | --- |
| Create this table Bikes and insert 5 records | Create this table Cars and insert 5 records |
| create table bikes  (bikes varchar (15),  model varchar (15),  Yearr varchar (15),  colour varchar (15),  owner\_name varchar (15),  owner\_id int ); | create table cars (  car varchar (15),  model varchar (15),  Yearr varchar (15),  colour varchar (15),  owner\_name varchar (15),  owner\_id int ); |

**Task 1**

|  |  |  |
| --- | --- | --- |
|  | Find union of car and owner\_name from both tables | select car from cars128 union select owner\_name from cars128 |
|  | Practice another union statement. | select car from cars128 union select owner\_name from bikes128 |
|  | How to find distinct values using union statement | select distinct car from cars128 union select distinct owner\_name from bikes128 |
|  | Practice another union all statement | select distinct car from cars128 union all select distinct owner\_name from bikes128 |

**Task 2**

|  |  |  |
| --- | --- | --- |
|  | Show only 1st row of table bikes | select top 1 \* from bikes129 |
|  | Show 1st three rows in table car | select top 3 \* from cars128 |
|  | Practice except operator | select car from cars128 except select bikes from bikes129 |
|  | Find intersection of car and bikes from both tables | select car from cars128 intersect select bikes from bikes129 |

**Task 3**

|  |  |  |
| --- | --- | --- |
|  | Show the Count of total numbers of records in table cars | select count(\*) from cars128 |
|  | Count total numbers of records in table bikes | select count(\*) from bikes129 |
|  | Retrieve the total Count number of cars having colour grey | select count(colour) from cars128  where colour= 'grey' |
|  | Show the total Count number of cars having model 2011 | select count(model) from cars128  where model= '2011' |
|  | Retrieve minimum year in cars | select min(yearr) from cars128 |
|  | Display minimum model from the table bikes | select min(model) from bikes129 |

**Task 4**

|  |  |  |
| --- | --- | --- |
|  | Show maximum year in bikes | select max(yearr) from bikes128 |
|  | Display maximum model from the table cars | select max(model) from cars128 |
|  | Retrieve average owner\_id in cars | select avg(owner\_id) from cars128 |
|  | Show average model from the table bikes | select avg(model) from bikes128 |
|  | Find sum of year in cars | select sum(yearr) from cars128 |

**Lab Grading Sheet :**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Max Marks** | **Obtained Marks** | **Comments(*if any*)** |
| 1. | 10 |  |  |
| 2. | 10 |  |  |
| 3. | 10 |  |  |
| 4. | 10 |  |  |
| **Total** | **40** |  | **Signature** |

* **Note : Attempt all tasks and get them checked by your Lab. Instructor**