**DBMS ASSIGNMENT**

**Table 1-**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| roll\_no | fname | mname | sname | dept\_id | semester | contact\_no | gender |
| 1 | Ankit | Samir | Kahar | 1 | 1 | 272121 | M |
| 2 | Dhaval | Dhiren | Joshi | 1 | 1 | 232122 | M |
| 3 | Ankita | Biren | Shah | 1 | 1 | 112121 | F |
| 4 | Shweta | Mihir | Patel | 3 | 1 | 646342 | F |
| 7 | Pooja | Mayank | Desai | 3 | 3 | 328656 | F |
| 8 | Komal | Krishnaraj | Bhatia | 2 | 3 | 257422 | F |
| 10 | Komal | Maheshkumar | Pandya | 2 | 3 | 123123 | F |
| 13 | Amit | Jitenkumar | Mehta | 3 | 3 | 453667 | M |
| 22 | Ganesh | Asha | Patel | 2 | 3 | 124244 | M |
| 23 | Jinal | Ashish | Gandhi | 2 | 1 | 323232 | M |
| 43 | Kiran | Viraj | Shah | 1 | 1 | 754124 | F |

**Table 2-**

|  |  |  |  |
| --- | --- | --- | --- |
| dept\_id | dept\_name | |  |
| 1 | Information Technology | | |
| 2 | Electrical |  |  |
| 3 | Civil |  |  |
| 4 | Mechanical | |  |
| 5 | Chemical |  |  |

**Create a relational database that contains the following tables and insert the following data into these tables. Solved the Following SQL Queries:**

1. Display the first name and contact number of all students.

Command:-

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) fname,contact\_no FROM stud\_member ;

Top of Form

|  |  |
| --- | --- |
| [fname](http://localhost/phpmyadmin/sql.php) | [contact\_no](http://localhost/phpmyadmin/sql.php) |
| Ankit | 272121 |
| Dhaval | 232122 |
| Ankita | 112121 |
| Shweta | 646342 |
| Pooja | 328656 |
| Komal | 257422 |
| Komal | 123123 |
| Amit | 453667 |
| Ganesh | 124244 |
| Jinal | 323232 |
| Kiran | 754124 |

Bottom of Form

2. Display Roll no. , First name, dept id and Dept name.

Command:-

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) stud\_member.roll\_no, stud\_member.fname, stud\_member.dept\_id,departme

.dept\_name FROM stud\_member [LEFT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) OUTER JOIN department ON stud\_member.dept\_id = department.dept\_id ;

|  |  |  |  |
| --- | --- | --- | --- |
| [roll\_no](http://localhost/phpmyadmin/sql.php) | [fname](http://localhost/phpmyadmin/sql.php) | [dept\_id](http://localhost/phpmyadmin/sql.php) | [dept\_name](http://localhost/phpmyadmin/sql.php) |
| 1 | Ankit | 1 | Information Technology |
| 2 | Dhaval | 1 | Information Technology |
| 3 | Ankita | 1 | Information Technology |
| 4 | Shweta | 3 | Civil |
| 7 | Pooja | 3 | Civil |
| 8 | Komal | 2 | Electrical |
| 10 | Komal | 2 | Electrical |
| 13 | Amit | 3 | Civil |
| 22 | Ganesh | 2 | Electrical |
| 23 | Jinal | 2 | Electrical |
| 43 | Kiran | 1 | Information Technology |

3. Display the first name, Sname , contact no and Dept name whose first name contain ‘a’.

Command:-

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) stud\_member.fname, stud\_member.sname, stud\_member.contact\_no, department.dept\_name FROM stud\_member [LEFT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) OUTER JOIN department ON stud\_member.dept\_id = department.dept\_id WHERE stud\_member.fname [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-comparison-functions.html#operator_like) '%a%' ;

|  |  |  |  |
| --- | --- | --- | --- |
| [fname](http://localhost/phpmyadmin/sql.php) | [sname](http://localhost/phpmyadmin/sql.php) | [contact\_no](http://localhost/phpmyadmin/sql.php) | [dept\_name](http://localhost/phpmyadmin/sql.php) |
| Ankit | Kahar | 272121 | Information Technology |
| Dhaval | Joshi | 232122 | Information Technology |
| Ankita | Shah | 112121 | Information Technology |
| Shweta | Patel | 646342 | Civil |
| Pooja | Desai | 328656 | Civil |
| Komal | Bhatia | 257422 | Electrical |
| Komal | Pandya | 123123 | Electrical |
| Amit | Mehta | 453667 | Civil |
| Ganesh | Patel | 124244 | Electrical |
| Jinal | Gandhi | 323232 | Electrical |
| Kiran | Shah | 754124 | Information Technology |

4. Give the name and roll no of all students of information technology who are members.

Command:-

|  |  |  |  |
| --- | --- | --- | --- |
| [fname](http://localhost/phpmyadmin/sql.php) | [sname](http://localhost/phpmyadmin/sql.php) | [roll\_no](http://localhost/phpmyadmin/sql.php) | [dept\_name](http://localhost/phpmyadmin/sql.php) |
| Ankit | Kahar | 1 | Information Technology |
| Dhaval | Joshi | 2 | Information Technology |
| Ankita | Shah | 3 | Information Technology |
| Kiran | Shah | 43 | Information Technology |

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) stud\_member.fname, stud\_member.sname, stud\_member.roll\_no, department.dept\_name FROM stud\_member [LEFT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) OUTER JOIN department ON stud\_member.dept\_id = department.dept\_id WHERE stud\_member.dept\_id [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-comparison-functions.html#operator_like) '1' ;

5. Display the name of departments whose students are members.

Command :-

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) department.dept\_name from department [left](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) outer join stud\_member on department.dept\_id = stud\_member.dept\_id where stud\_member.dept\_id [is](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/comparison-operators.html#operator_is) [NOT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/logical-operators.html#operator_not) null

|  |
| --- |
| [dept\_name](http://localhost/phpmyadmin/sql.php) |
| Information Technology |
| Information Technology |
| Information Technology |
| Civil |
| Civil |
| Electrical |
| Electrical |
| Civil |
| Electrical |
| Electrical |
| Information Technology |

6. Display name of departments for which no students are members.

Command: -

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html)  department.dept\_name , stud\_member.dept\_id from department [left](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) outer join stud\_member on department.dept\_id = stud\_member.dept\_id where stud\_member.dept\_id [is](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/comparison-operators.html#operator_is) null ;

|  |  |
| --- | --- |
| [dept\_name](http://localhost/phpmyadmin/sql.php) | [dept\_id](http://localhost/phpmyadmin/sql.php) |
| Mechanical | *NULL* |
| Chemica | *NULL* |

7. Combine the First name, Middle name and Surname.

Command:-

[select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) concat(fname, ' ',mname, ' ', sname) from stud\_member ;

|  |
| --- |
| [concat(fname, ' ',mname, ' ', sname)](http://localhost/phpmyadmin/sql.php) |
| Ankit Samir Kahar |
| Dhaval Dhiren Joshi |
| Ankita Biren Shah |
| Shweta Mihir Patel |
| Pooja Mayank Desai |
| Komal Krishnaraj Bhatia |
| Komal Maheshkumar Pandya |
| Amit Jitenkumar Mehta |
| Ganesh Asha Patel |
| Jinal Ashish Gandhi |
| Kiran Viraj Shah |

8. Count the Total no of Students in each department.

Command:-

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) department.dept\_name, [count](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(stud\_member.roll\_no) from stud\_member [left](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) outer join department on department.dept\_id = stud\_member.dept\_id group by department.dept\_id

|  |  |
| --- | --- |
| [dept\_name](http://localhost/phpmyadmin/sql.php) | [count(stud\_member.roll\_no)](http://localhost/phpmyadmin/sql.php) |
| Information Technology | 4 |
| Electrical | 4 |
| Civil | 3 |

9. Count the Total no of Female Students in each department.

Command:-

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) department.dept\_name, [count](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(stud\_member.roll\_no) from stud\_member [left](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) outer join department on department.dept\_id = stud\_member.dept\_id where stud\_member.gender = 'F' group by department.dept\_id ;

|  |  |
| --- | --- |
| [dept\_name](http://localhost/phpmyadmin/sql.php) | [count(stud\_member.roll\_no)](http://localhost/phpmyadmin/sql.php) |
| Information Technology | 2 |
| Electrical | 2 |
| Civil | 2 |

10.Count the Total no of Students in each department and display only those department which having more than 3 students

Command:-

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) department.dept\_name, [count](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(stud\_member.roll\_no) from stud\_member [left](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/string-functions.html#function_left) outer join department on department.dept\_id = stud\_member.dept\_id group by department.dept\_id HAVING [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(stud\_member.roll\_no) > 3;

|  |  |
| --- | --- |
| [dept\_name](http://localhost/phpmyadmin/sql.php) | [count(stud\_member.roll\_no)](http://localhost/phpmyadmin/sql.php) |
| Information Technology | 4 |
| Electrical | 4 |