1. **List the name of divisions that have more than 4 employees working on projects**

**INPUT**

select dname from division d

where did in (

select did from workon w, employee e

where e.empid=w.empid

group by did

having count(distinct w.empid) > 4

)

**OUTPUT**

|  |
| --- |
| **DNAME** |
| engineering |
| marketing |
| Research and development |

1. **For each division (DID), List the name of project that has highest budget in that division and list the total number of employees who work on it.**

**INPUT**

select pname, count(w.empid) as total\_no\_of\_employees

from project p, division d, workon w

where p.did =d.did and w.pid = p.pid AND budget = (select max(budget)

from project pp

where pp.did=d.did)

Group by d.did, pname;

**OUTPUT**

|  |  |
| --- | --- |
| **PNAME** | **TOTAL\_NO\_OF\_EMPLOYEES** |
| system development | 6 |
| security system | 6 |
| DB development | 8 |
| Web development | 11 |

1. **List the name of employee make more salary than the average salary of employee working on project “Web development”.**

**INPUT**

select e.empid, e.name

from employee e

where salary > (select avg(salary) from employee e where empid in (select empid from workon w, project p where w.pid = p.pid and

UPPER(pname) = 'WEB DEVELOPMENT' ))

**OUTPUT**

|  |  |
| --- | --- |
| **EMPID** | **NAME** |
| 4 | larry |
| 5 | harry |
| 7 | peter |
| 9 | chen |
| 16 | Justin |
| 21 | Alex |
| 22 | Phil |
| 23 | Steve |
| 24 | Jenna |
| 25 | Alan |
| 26 | Julia |
| 27 | Sandra |
| 28 | Joe |
| 29 | karl |
| 30 | grace |

1. **List the name of manager whose salary is below his/her divisional average salary.**

**INPUT**

select name as Manager\_name

from division d, employee e

where e.empid=d.managerid and salary < (select avg(salary) from employee ee

where ee.did=d.did)

**OUTPUT**

|  |
| --- |
| **MANAGER\_NAME** |
| kevin |
| joan |
| brian |

1. **Among all projects ‘Accounting’ division has, list the name of project that has budget below company’s average project budget.**

**INPUT**

select pname

from project

where did IN (select d.did from division d where UPPER(dname) = 'ACCOUNTING')

and budget < (select avg(budget) from project p)

**OUTPUT**

no data found

1. **List the name of employees and his/her division name if her/his works on more than 2 projects and salary is below company average.**

**INPUT**

select e.name, d.dname as division\_name

from employee e, division d

where e.did = d.did and empid in (select empid from workon

group by empid

having count (pid) >2 ) and salary < (select avg(salary) from employee)

**OUTPUT**

|  |  |
| --- | --- |
| **NAME** | **DIVISION\_NAME** |
| peter | marketing |
| brian | human resource |
| smith | Research and development |

1. **List the name of Division t****hat has employee(s) who do not work on a project sponsored by his/her division.**

**INPUT**

select distinct d.dname

from employee e, division d

where e.did = d.did and e.empid NOT IN (select e.empid from employee e, workon w, project p

where e.empid = w.empid and w.pid = p.pid and e.did = p.did )

**OUTPUT**

|  |
| --- |
| **DNAME** |
| accounting |
| human resource |
| Research and development |
| marketing |
| engineering |

1. **List the name of employees who work on both ‘web development’ and ‘DB development’ but spend more time on former than later.**

**INPUT**

select name

from employee e

where (select hours from workon w, project p

where e.empid = w.empid and w.pid=p.pid   
  
and UPPER(p.pname) = 'WEB DEVELOPMENT' )

> (select hours from workon w, project p

where w.empid= e.empid and p.pid=w.pid   
  
and UPPER(p.pname) = 'DB DEVELOPMENT' )

**OUTPUT**

no data found

1. **List the names of projects ALL accounting’s employees working on it.**

**INPUT**

select pname from project

where pid IN (select w.pid from workon w, employee e

where w.empid=e.empid and e.did in ( select did from division

where lower(dname)='accounting'));

**OUTPUT**

|  |
| --- |
| **PNAME** |
| network development |
| Wireless development |
| security system |

1. **List the name of project no one from accounting division works on**

**INPUT**

select pname from project where pid not in(

select pid

from workon w

where empid in

(select empid from division d, employee e where e.did=d.did and lower(dname)='accounting'))

**OUTPUT**

|  |  |
| --- | --- |
| **PID** | **PNAME** |
| 1 | DB development |
| 3 | Web development |
| 6 | system development |

Note: This is an individual and independent test. **DO NOT discuss or share solutions with each other.  Upload your file on time.**