Problem 1:

ABC Pvt Ltd has several departments, each department has many employees and projects. A department must have some employees at any point in time. Sometimes the departments do not run any project. When projects are available, each employee has to work in one more projects. In case he or she is associated with many projects they have to share the workhour among the associated projects.

1. Design an ER-Diagram for the companies database, considering following attribute for different entities :

*Employee*: **eid**, ename, sex, dob, joindate, salary

*Department*: **did**, dname, location

*Project*: **pid**, pname, startdate, deadline

1. Create tables following the ER Diagram. Please note that there can be relationship tables as well.
2. Currently Following data is available regarding the *Employees, Departments* and *Projects.* Insert this data into the database tables.

DEPARTMENT

|  |  |  |
| --- | --- | --- |
| did | dname | location |
| 101, | 'Production', | 'Gurgaon' |
| 201, | 'Assembly', | 'Noida' |
| 301, | 'Marketing', | 'Delhi' |

PROJECT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| pid | pname | startdate | deadline | DEPARTMENT\_did |
| 1011 | Special CMOS gate for BEL | 2017-01-01 | 36 | 101 |
| 1012 | RAM for KINGSTON | 2017-06-01 | 36 | 101 |
| 2011 | mother board for ASUS | 2017-01-01 | 24 | 201 |
| 2012 | mother board for ACER | 2017-09-01 | 24 | 201 |
| 3011 | target new assembly contract | 2018-06-01 | 6 | 301 |

EMPLOYEE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| `eid` | `ename` | `sex` | `dob` | `joindate` | `salary` | `DEPARTMENT\_did` |
| 1101 | Ram Yadav | M | 1988-04-12 | 2017-01-25 | 19000 | 101 |
| 1102 | Raghav P | M | 1985-06-10 | 2017-11-05 | 18000 | 101 |
| 1103 | M Reddy | M | 1990-06-17 | 2018-01-10 | 15000 | 101 |
| 2101 | Megha | F | 1989-08-10 | 2017-07-01 | 21000 | 201 |
| 2102 | Karanvir | M | 1985-12-10 | 2017-11-05 | 20000 | 201 |
| 2103 | Sundar S | M | 1991-02-15 | 2018-06-15 | 15000 | 201 |
| 3101 | Rama P | F | 1985-06-10 | 2017-02-05 | 30000 | 301 |
| 3102 | Radhika Bera | F | 1991-08-22 | 2017-06-15 | 27000 | 301 |

EMPLOYEE WORKHOUR IN EACH PROJECT

|  |  |  |
| --- | --- | --- |
| EMPLOYEE\_eid | PROJECT\_pid | hours |
| 1101 | 1011 | 4 |
| 1101 | 1012 | 4 |
| 1102 | 1011 | 6 |
| 1102 | 1012 | 2 |
| 1103 | 1012 | 8 |
| 2101 | 2011 | 8 |
| 2102 | 2011 | 2 |
| 2102 | 2012 | 6 |
| 2103 | 2012 | 8 |
| 3101 | 3011 | 8 |
| 3102 | 3011 | 8 |