DBMS Assignment-6

```
CREATE TABLE Employee(
  Empno int PRIMARY KEY NOT NULL,
  Emp_name varchar(255) NOT NULL,
  Emp_Join_Date date,
  Emp_Status varchar(1) NOT NULL
);

CREATE TABLE Project(
Project_Code VARCHAR(4) PRIMARY KEY NOT NULL,
Project_Description varchar(300) NOT NULL,
Project_Start_Date date,
Project_End_Date date
);
CREATE TABLE Project_Allocation(
   Project_Code VARCHAR(4),
   Empno int,
   Emp_Proj_Alloc_Date DATE,
```

```
    Emp_Proj_Release_Date DATE,
    FOREIGN KEY(Project_Code) REFERENCES
Project(Project_Code),
    FOREIGN KEY(Empno) REFERENCES Employee(Empno)
);

INSERT INTO Employee VALUES(101,'Jhonny', '2005-07-01', 'C');
INSERT INTO Employee VALUES(116,'Nayak', '2005-08-16', 'C');
INSERT INTO Employee VALUES(202,'Meera', '2006-01-30', 'C');
INSERT INTO Employee VALUES(205,'Ravi', '2006-02-11', 'C');
INSERT INTO Employee VALUES(304,'Hari', '2006-11-25', 'P');
INSERT INTO Employee VALUES(307,'Nancy', '2007-01-15', 'P');
INSERT INTO Employee VALUES(403,'Nick', '2007-01-21', 'P');

INSERT INTO Project VALUES('P001','Environment Pollution',
'2005-08-02', '2006-12-11');
INSERT INTO Project VALUES('P002','Learning Curve', '2006-02-
01', '2006-03-15');
INSERT INTO Project VALUES('P003','Effects of IT', '2007-01-03',
NULL);
```

```
INSERT INTO Project_Allocation VALUES('P001',101, '2005-08-01', '2006-12-11');

INSERT INTO Project_Allocation VALUES('P001',116, '2005-08-16', '2006-12-11');

INSERT INTO Project_Allocation VALUES('P002',202, '2006-01-12', '2007-01-14');

INSERT INTO Project_Allocation VALUES('P002',307, '2007-01-15', NULL);

INSERT INTO Project_Allocation VALUES('P002',205, '2006-02-11', NULL);

INSERT INTO Project_Allocation VALUES('P003',403, '2007-01-21', NULL);

INSERT INTO Project_Allocation VALUES('P003',304, '2007-01-03', NULL);

INSERT INTO Project_Allocation VALUES('P003',101, '2007-01-03', NULL);

INSERT INTO Project_Allocation VALUES('P003',116, '2007-01-03', NULL);

INSERT INTO Project_Allocation VALUES('P003',202, '2007-01-15', NULL);
```

Q1. Write queries for the following:

1. List all the project names along with the employee names to whom the project is assigned.

```
SELECT Project_Description,Emp_name FROM
Project,Employee,Project_Allocation WHERE
Project_Allocation.Project_Code=Project.Project_Code
AND Employee.Empno=Project_Allocation.Empno;
```

Result

CPU Time: 0.00 sec(s), Memory: 4196 kilobyte(s)

```
Environment Pollution|Jhonny
Environment Pollution|Nayak
Learning Curve|Meera
Learning Curve|Nancy
Learning Curve|Ravi
Effects of IT|Nick
Effects of IT|Hari
Effects of IT|Jhonny
Effects of IT|Nayak
Effects of IT|Meera
```

2. Display the name of employees whose status is confirmed.

```
SELECT Emp_name FROM Employee WHERE
Emp_Status='C';
```

Result

CPU Time: 0.00 sec(s), Memory: 4172 kilobyte(s)

```
Jhonny
Nayak
Meera
Ravi
```

3. List the employees who have joined in the month of November.

```
SELECT Empno,Emp_name FROM Employee WHERE
strftime("%m",Emp_Join_Date)='11';
```

Result

CPU Time: 0.00 sec(s), Memory: 4248 kilobyte(s)

```
304|Hari
```

4. List the projects which have started after 1st Jan 2006.

```
SELECT Project_Description FROM Project WHERE
Project_Start_Date>'2006-01-01';
```

Result

CPU Time: 0.00 sec(s), Memory: 4268 kilobyte(s)

```
Learning Curve
Effects of IT
```

5. List all the employees who are working for the project entitled ‘Effects of IT’.

```
SELECT Emp_name FROM
Employee,Project,Project_Allocation WHERE
Project_Allocation.Project_Code=Project.Project_Code
AND Employee.Empno=Project_Allocation.Empno AND
Project.Project_Description='Effects of IT';
```

Result

CPU Time: 0.00 sec(s), Memory: 4264 kilobyte(s)

```
Nick
Hari
Jhonny
Nayak
Meera
```

6. List all the projects that are not yet completed.

```
SELECT Project_Description FROM Project WHERE
Project_End_Date is NULL;
```

Result

CPU Time: 0.00 sec(s), Memory: 4108 kilobyte(s)

```
Effects of IT
```

7. Display the Employees who are released from project having code P002.

```
SELECT Emp_name FROM Employee,Project_Allocation
WHERE Project_Allocation.Project_Code='P002' AND
Project_Allocation.Empno=Employee.Empno AND
Emp_Proj_Release_Date is NOT NULL;
```

Result

CPU Time: 0.01 sec(s), Memory: 4168 kilobyte(s)

```
Meera
```

8. Count and display the number of days it took for the completion of project P002.

```
SELECT julianday(Project_End_Date) -
julianday(Project_Start_Date) FROM Project WHERE
Project_Code='P002';
```

Result

CPU Time: 0.00 sec(s), Memory: 4224 kilobyte(s)

```
42.0
```

9. List the name of employees along with the number of days they have worked for projects allocated to them.

```
SELECT Emp_name,
CASE WHEN Emp_Proj_Release_Date IS NULL THEN
ROUND(julianday('now') -
julianday(Emp_Proj_Alloc_Date))
ELSE julianday(Emp_Proj_Release_Date)-
julianday(Emp_Proj_Alloc_Date)
END AS Emp_Proj_Release_Date FROM
Project_Allocation,Employee WHERE
Employee.Empno=Project_Allocation.Empno;
```

Result

CPU Time: 0.00 sec(s), Memory: 4156 kilobyte(s)

```
Jhonny|497.0
Nayak|482.0
Meera|367.0
Nancy|5152.0
Ravi|5490.0
Nick|5146.0
Hari|5164.0
Jhonny|5164.0
Nayak|5164.0
Meera|5152.0
```

10. Add a column Manager_id in the Projects table

```
ALTER TABLE Project
ADD Manager_id int;
```

11. Update the Projects table with the following data:

```
UPDATE Project SET Manager_id = 101 WHERE
Project_Code='P001';
```

```
UPDATE Project SET Manager_id = 202 WHERE
Project_Code='P002';

UPDATE Project SET Manager_id= 116 WHERE
Project_Code='P003';

SELECT * FROM Project;
```

Result

CPU Time: 0.00 sec(s), Memory: 4108 kilobyte(s)

```
P001|Environment Pollution|2005-08-02|2006-12-11|101
P002|Learning Curve|2006-02-01|2006-03-15|202
P003|Effects of IT|2007-01-03||116
```

12. A new project entitled "Election Rage" which will be starting on 1st March 2007 has been received. Add these details in Projects table.

```
ALTER TABLE Project

ADD Manager_id int;

UPDATE Project SET Manager_id = 101 WHERE
Project_Code='P001';

UPDATE Project SET Manager_id = 202 WHERE
Project_Code='P002';

UPDATE Project SET Manager_id= 116 WHERE
Project_Code='P003';

SELECT * FROM Project;
```

```
INSERT INTO Project VALUES('P004','Election Rage',
'2007-03-01', NULL,NULL);

SELECT * FROM Project;
```

Result

CPU Time: 0.00 sec(s), Memory: 4224 kilobyte(s)

```
P001|Environment Pollution|2005-08-02|2006-12-11|101
P002|Learning Curve|2006-02-01|2006-03-15|202
P003|Effects of IT|2007-01-03||116
P001|Environment Pollution|2005-08-02|2006-12-11|101
P002|Learning Curve|2006-02-01|2006-03-15|202
P003|Effects of IT|2007-01-03||116
P004|Election Rage|2007-03-01||
```

13. Project named “Effects of IT” is cancelled. Remove its details from the Projects table.

```
DELETE FROM Project WHERE Project_Code='P004';

SELECT * FROM Project;
```

Result

CPU Time: 0.00 sec(s), Memory: 4184 kilobyte(s)

```
P001|Environment Pollution|2005-08-02|2006-12-11|101
P002|Learning Curve|2006-02-01|2006-03-15|202
P003|Effects of IT|2007-01-03||116
```

14. List the projects with a time duration of more than 13 months.

```
SELECT Project_Description FROM Project WHERE
(strftime('%m', Project_End_Date) + 12*strftime('%Y',
Project_End_Date)) - (strftime('%m', Project_Start_Date)
+ 12*strftime('%Y', Project_Start_Date ))>13;
```

Result

CPU Time: 0.00 sec(s), Memory: 4156 kilobyte(s)

```
Environment Pollution
```

15. List the number of employees, project wise who have worked on the project in Feb –2007.

```
SELECT COUNT(Empno) FROM Project_Allocation WHERE
Emp_Proj_Alloc_Date<('2007-02-01') AND
coalesce(Emp_Proj_Release_Date, 'now')>('2007-02-01')
GROUP BY Project_Code;
```

Result

CPU Time: 0.00 sec(s), Memory: 4196 kilobyte(s)

```
2
5
```