

1. Create the following tables:

Student

<u>StdID</u>	Identifies the Student's
Std_name	Student name. Cannot be blank
Std_Join_Date	Date of Join of student. Default is the system date
Std_Status	Student status. Can be either Pass or Fail

Project

<u>Project Code</u>	Identifies the projects
Project_Description	Name of the project. Cannot be blank and have to be unique
Project_Start_Date	Start date of the project. Cannot be blank
Project_End_Date	End date of the project

Project_Allocation

<u>Project Code</u>	Project Code
<u>StdID</u>	Student ID
Std_Proj_Alloc_Date	Student project allocation date
Std_Proj_Submit_Date	Student project submission date

```
CREATE TABLE Student(  
StdId INT,  
Std_name VARCHAR(15) NOT NULL,  
Std_Join_Date DATE DEFAULT (CURRENT_DATE()),  
Std_Status VARCHAR(6),  
PRIMARY KEY (StdID),  
CONSTRAINT CHK_student CHECK(Std_Status='PASS' OR  
Std_Status='FAIL')  
);
```

```
-- DESC Student;
```

```
CREATE TABLE Project(  
Project_Code VARCHAR(6),  
Project_Name VARCHAR(40) NOT NULL UNIQUE,  
Project_Start_Date DATE NOT NULL,  
Project_End_Date DATE,  
PRIMARY KEY (Project_Code)  
);
```

```
CREATE TABLE Project_Allocation(  
Project_Code VARCHAR(6),  
StdId INT,  
Std_Proj_Alloc_Date DATE,  
Std_Proj_Submit_Date DATE DEFAULT NULL,  
PRIMARY KEY (Project_Code, StdId)  
);
```

2. Insert the following data in Student table

<u>StdId</u>	Std_name	Std_Join_Date	Std_Status
101	Jhonny	01-Jul-2005	Fail
116	Nayak	16-Aug-2005	Fail
202	Meera	30-Jan-2006	Fail
205	Ravi	11-Feb-2006	Fail
304	Hari	25-Nov-2006	Pass
307	Nancy	15-Jan-2007	Pass
403	Nick	21-Jan-2007	Pass

3. Insert the following data in Project table

<u>Project_Code</u>	Project_Name	Project_Start_Date	Project_End_Date
P001	Environment Pollution	02-Aug-2005	11-Dec-2006
P002	Learning Curve	01-Feb-2006	15-Mar-2006
P003	Culture Database	03-Jan-2007	

4. Insert the following data in Project_Allocation table

<u>Project_Code</u>	<u>Stdjno</u>	Std_Proj_Alloc_Date	Std_Proj_Submit_Date
P001	101	01-Aug-2005	11-Dec-2006
P001	116	16-Aug-2005	11-Dec-2006
P002	202	01-Feb-2006	14-Jan-2007
P002	307	15-Jan-2007	

```
INSERT INTO Student VALUES
(101, 'Jhonny', '2005-07-01', 'FAIL');
INSERT INTO Student VALUES
(116, 'Nayak', '2005-08-16', 'FAIL');
INSERT INTO Student VALUES
(202, 'Meera', '2006-01-30', 'FAIL');
INSERT INTO Student VALUES
(205, 'Ravi', '2006-02-11', 'FAIL');
INSERT INTO Student VALUES
(304, 'Hari', '2006-11-25', 'PASS');
INSERT INTO Student VALUES
(307, 'Nancy', '2007-01-15', 'PASS');
INSERT INTO Student VALUES
```

```
(403, 'Nick', '2007-01-21', 'PASS');
```

```
INSERT INTO Project VALUES
```

```
('P001', 'Environmental  
Pollution', '2005-08-02', '2006-12-11');
```

```
INSERT INTO Project VALUES
```

```
('P002', 'Learning  
Curve', '2006-02-01', '2006-03-15');
```

```
INSERT INTO
```

```
Project(Project_Code, Project_Name, Project_Start_Da  
te) VALUES
```

```
('P003', 'Culture Database', '2007-01-03');
```

```
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, '2006-02-01', '2007-01-14');
```

```
INSERT INTO
```

```
Project_Allocation(Project_Code, StdId, Std_Proj_All  
oc_Date) VALUES
```

```
('P002', 307, '2007-01-15');
```

```
INSERT INTO
```

```
Project_Allocation(Project_Code, StdId, Std_Proj_All  
oc_Date) VALUES
```

```
('P002', 205, '2006-02-11');
```

```
INSERT INTO
```

```
Project_Allocation(Project_Code, StdId, Std_Proj_All  
oc_Date) VALUES
```

```
('P003', 403, '2007-01-21');
```

```
INSERT INTO
```

```
Project_Allocation(Project_Code, StdId, Std_Proj_All  
oc_Date) VALUES
```

```
('P003', 304, '2007-01-03');
```

```
INSERT INTO
Project_Allocation(Project_Code,StdId,Std_Proj_All
oc_Date) VALUES
('P003',101,'2007-01-03');
INSERT INTO
Project_Allocation(Project_Code,StdId,Std_Proj_All
oc_Date) VALUES
('P003',116,'2007-01-03');
INSERT INTO
Project_Allocation(Project_Code,StdId,Std_Proj_All
oc_Date) VALUES
('P003',202,'2007-01-15');
```

5. Write queries for the following :

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

```
SELECT Project_Name AS PROJECT , Std_name AS STUDENT FROM
Student st, Project pr, Project_Allocation pa
where pa.Project_Code=pr.Project_Code and
st.StdId=pa.StdId;
```

PROJECT	STUDENT
Culture Database	Jhonny
Culture Database	Nayak
Culture Database	Meera
Culture Database	Hari
Culture Database	Nick
Environmental Pollution	Jhonny
Environmental Pollution	Nayak
Learning Curve	Meera
Learning Curve	Ravi
Learning Curve	Nancy

2. Display the name of students whose status is Pass.

```
SELECT Std_name FROM Student WHERE Std_Status = 'PASS';
```

Std_name
Hari
Nancy
Nick

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

```
SELECT * FROM Student WHERE (EXTRACT(MONTH FROM Std_Join_Date)=11);
```

StdId	Std_name	Std_Join_Date	Std_Status
304	Hari	2006-11-25	PASS

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

```
SELECT * FROM Project WHERE Project Start Date > '2006-01-01';
```

Project_Code	Project_Name	Project_Start_Date	Project_End_Date
P002	Learning Curve	2006-02-01	2006-03-15
P003	Culture Database	2007-01-03	NULL

5. List all the students who are working for the project entitled 'Effects of IT'.

```
SELECT Student.StdId, Std_name FROM
Student, Project, Project_Allocation WHERE
Project_Allocation.StdId=Student.StdId AND
Project_Allocation.Project_Code=Project.Project_Code AND
Project.Project_Name='Effects of IT';
```

StdId	Std_name

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

```
SELECT * FROM Project WHERE Project End Date IS
NULL;
```

Project_Code	Project_Name	Project_Start_Date	Project_End_Date
P003	Culture Database	2007-01-03	NULL

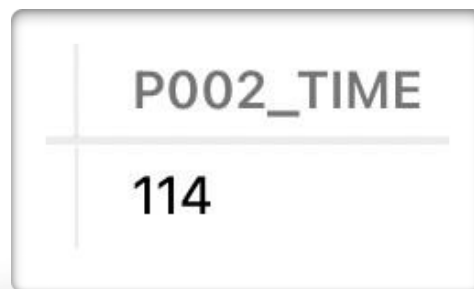
7. Display the students who have not submitted project having code P002.

```
SELECT * FROM Student, Project_Allocation WHERE
Project_Allocation.StdId=Student.StdId AND
Project_Code='P002' AND Std_Proj_Submit_Date IS
NULL;
```

StdId	Std_name	Std_Join_Date	Std_Status	Project_Code	StdId	Std_Proj_Alloc_Date	Std_Proj_Submit_Date
205	Ravi	2006-02-11	FAIL	P002	205	2006-02-11	NULL
307	Nancy	2007-01-15	PASS	P002	307	2007-01-15	NULL

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

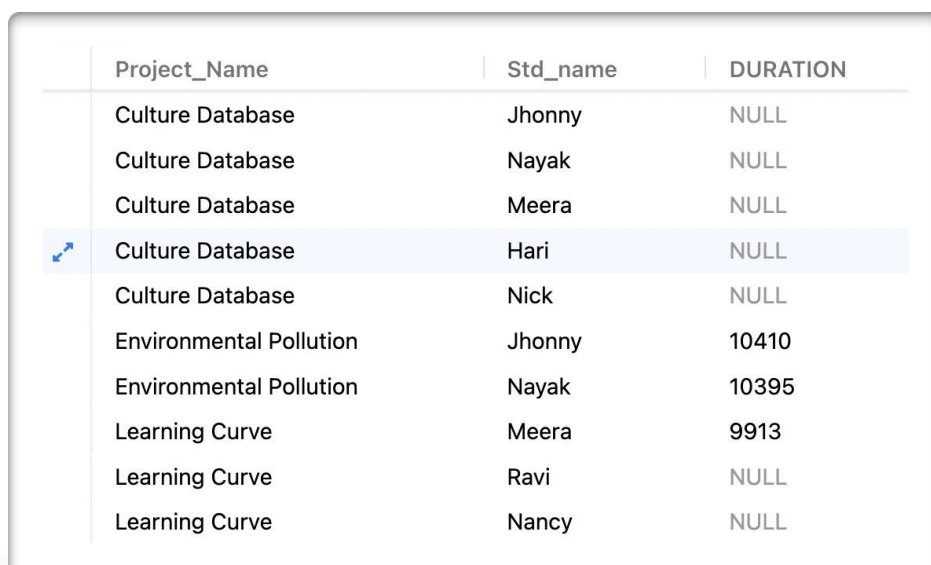
```
SELECT (Project_End_Date-Project_Start_Date) AS  
P002_TIME FROM Project WHERE Project_Code='P002';
```




P002_TIME
114

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

```
SELECT Project_Name, Std_name,  
(Std_Proj_Submit_Date-Std_Proj_Alloc_Date) AS  
DURATION  
FROM Student, Project, Project_Allocation WHERE  
Student.StdId=Project_Allocation.StdId AND  
Project.Project_Code=Project_Allocation.Project_Co  
de;
```



	Project_Name	Std_name	DURATION
	Culture Database	Jhonny	NULL
	Culture Database	Nayak	NULL
	Culture Database	Meera	NULL
	Culture Database	Hari	NULL
	Culture Database	Nick	NULL
	Environmental Pollution	Jhonny	10410
	Environmental Pollution	Nayak	10395
	Learning Curve	Meera	9913
	Learning Curve	Ravi	NULL
	Learning Curve	Nancy	NULL

10. Add a column `Project_Partner_id` in the `Projects` table

```
ALTER TABLE Project ADD Project_Partner_Id INT;
```

11. Update the `Projects` table with the following data :

```
Project_Code Project_Partner_id
P001 101
P002 202
P003 116
```

```
UPDATE Project
SET Project_Partner_Id=101 WHERE
Project_Code='P001';
UPDATE project
SET Project_Partner_Id=202 WHERE
Project_Code='P002';
UPDATE project
SET Project_Partner_Id=116 WHERE
Project_Code='P003';
```

Project_Code	Project_Name	Project_Start_Date	Project_End_Date	Project_Partner_Id
P001	Environmental Pollution	2005-08-02	2006-12-11	101
P002	Learning Curve	2006-02-01	2006-03-15	202
P003	Culture Database	2007-01-03	NULL	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.

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

Project_Code	Project_Name	Project_Start_Date	Project_End_Date	Project_Partner_Id
P001	Environmental Pollution	2005-08-02	2006-12-11	101
P002	Learning Curve	2006-02-01	2006-03-15	202
P003	Culture Database	2007-01-03	NULL	116
P004	Election Rage	2007-03-01	NULL	NULL

13. Project named "Culture Database" is cancelled. Remove its details from the Projects table.

```
DELETE FROM Project WHERE Project_Name = 'Culture Database';
```

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

```
SELECT * FROM Project WHERE  
Project_End_Date-Project_Start_Date>13;
```

Project_Code	Project_Name	Project_Start_Date	Project_End_Date	Project_Partner_Id
P001	Environmental Pollution	2005-08-02	2006-12-11	101
P002	Learning Curve	2006-02-01	2006-03-15	202

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

```
SELECT  
Project_Name, COUNT(Project_Allocation.StdId) FROM  
Student, Project, Project_Allocation WHERE  
Student.StdId=Project_Allocation.StdId AND  
Project.Project_Code=Project_Allocation.Project_Co  
de AND  
EXTRACT(MONTH FROM Std_Proj_Alloc_Date)=2 AND  
EXTRACT(YEAR FROM Std_Proj_Alloc_Date)=2007 GROUP  
BY Project_Name;
```

Project_Name	COUNT(Project_Allocation.StdId)