

1. Insert at least 5 tuples in each of the tables of the Yourname_Roll_COMPANY database in LAB-1

Office Table

The screenshot shows the SQL Studio interface with the 'Prabhat_22_COMPANY' database selected. The 'Office' table is highlighted in the 'Tables' list. The main editor displays the following SQL query:

```
## lab 2

INSERT INTO Office(Onumber, Oname, Country)
VALUES
(4, 'Ashmita_Office_4', 'Belgium'),
(12, 'Kabita_Office_12', 'India'),
(15, 'Kusum_Office_15', 'Nepal'),
(27, 'Pratigya_Office_27', 'India'),
(1, 'Abin_Office_1', 'Nepal');
```

The 'Statistics 1' window at the bottom shows the execution results:

Name	Value
Updated Rows	5
Query	INSERT INTO Office(Onumber, Oname, Country) VALUES (4, 'Ashmita_Office_4', 'Belgium'), (12, 'Kabita_Office_12', 'India'), (15, 'Kusum_Office_15', 'Nepal'), (27, 'Pratigya_Office_27', 'India'), (1, 'Abin_Office_1', 'Nepal')
Start time	Thu Apr 18 21:31:42 NPT 2024
Finish time	Thu Apr 18 21:31:42 NPT 2024

Employee Table

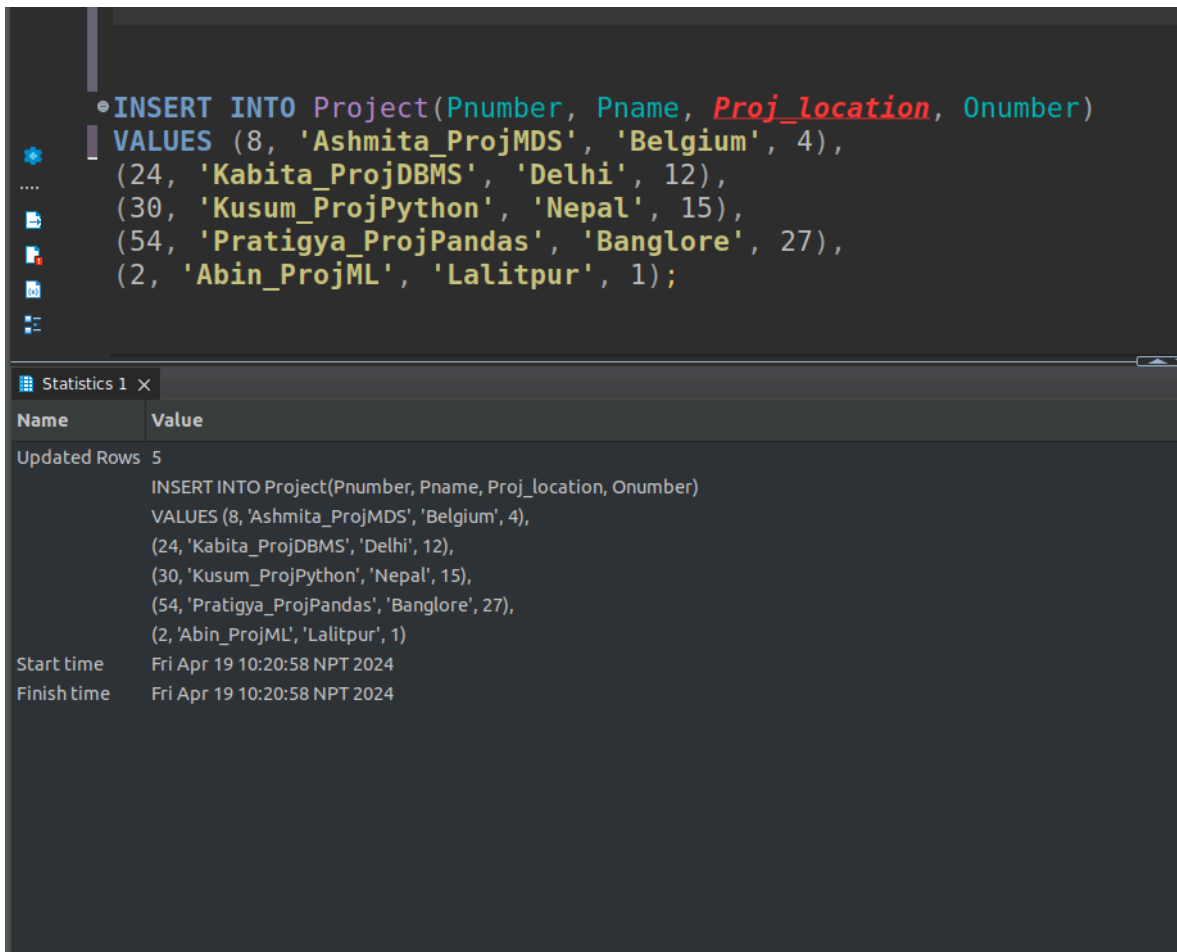
The screenshot shows the SQL Studio interface with the 'Prabhat_22_COMPANY' database selected. The 'EMPLOYEE' table is highlighted in the 'Tables' list. The main editor displays the following SQL query:

```
INSERT INTO EMPLOYEE(Ename, Gender, Bdate, Address, Salary, Ono, Years_of_experience)
VALUES
('Ashmita', 'F', '2053-12-05', 'Brussels', 95000, 4, 5),
('Kabita', 'F', '2054-12-15', 'Delhi', 80000, 12, 4),
('Kusum', 'F', '2052-07-06', 'Sunwal', 75000, 15, 2),
('Pratigya', 'F', '2057-11-15', 'Banglore', 80000, 27, 3),
('Abin', 'M', '2051-07-09', 'Sunwal', 75000, 1, 2);
```

The 'Statistics 1' window at the bottom shows the execution results:

Name	Value
Updated Rows	5
Query	INSERT INTO EMPLOYEE(Ename, Gender, Bdate, Address, Salary, Ono, Years_of_experience) VALUES ('Ashmita', 'F', '2053-12-05', 'Brussels', 95000, 4, 5), ('Kabita', 'F', '2054-12-15', 'Delhi', 80000, 12, 4), ('Kusum', 'F', '2052-07-06', 'Sunwal', 75000, 15, 2), ('Pratigya', 'F', '2057-11-15', 'Banglore', 80000, 27, 3), ('Abin', 'M', '2051-07-09', 'Sunwal', 75000, 1, 2)
Start time	Thu Apr 18 21:42:18 NPT 2024
Finish time	Thu Apr 18 21:42:18 NPT 2024

Project Table

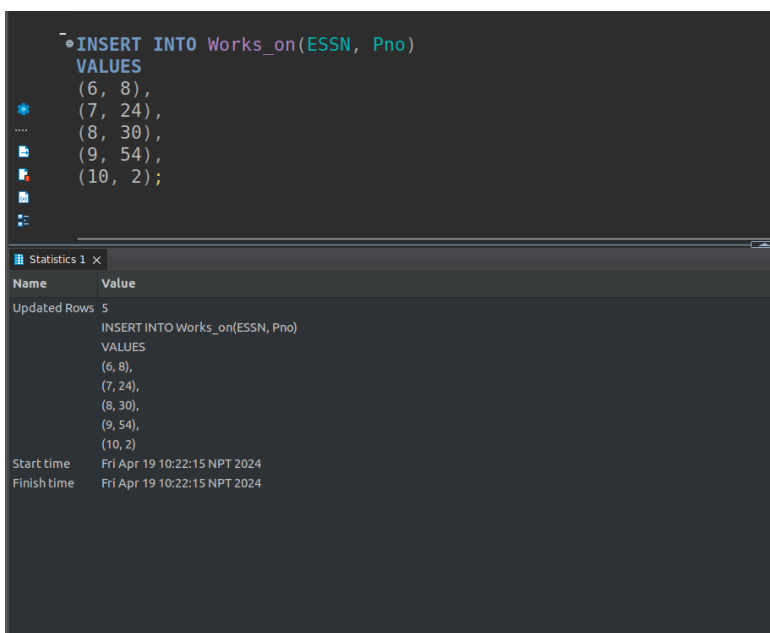


The screenshot shows a database IDE with a dark theme. The top pane displays an SQL INSERT statement for a table named 'Project'. The statement includes five rows of data. The bottom pane shows the execution statistics for this statement.

```
•INSERT INTO Project(Pnumber, Pname, Proj_location, Onumber)
VALUES (8, 'Ashmita_ProjMDS', 'Belgium', 4),
(24, 'Kabita_ProjDBMS', 'Delhi', 12),
(30, 'Kusum_ProjPython', 'Nepal', 15),
(54, 'Pratigya_ProjPandas', 'Banglore', 27),
(2, 'Abin_ProjML', 'Lalitpur', 1);
```

Name	Value
Updated Rows	5
	INSERT INTO Project(Pnumber, Pname, Proj_location, Onumber)
	VALUES (8, 'Ashmita_ProjMDS', 'Belgium', 4),
	(24, 'Kabita_ProjDBMS', 'Delhi', 12),
	(30, 'Kusum_ProjPython', 'Nepal', 15),
	(54, 'Pratigya_ProjPandas', 'Banglore', 27),
	(2, 'Abin_ProjML', 'Lalitpur', 1)
Start time	Fri Apr 19 10:20:58 NPT 2024
Finish time	Fri Apr 19 10:20:58 NPT 2024

Works_On Table



The screenshot shows a database IDE with a dark theme. The top pane displays an SQL INSERT statement for a table named 'Works_on'. The statement includes five rows of data. The bottom pane shows the execution statistics for this statement.

```
•INSERT INTO Works_on(ESSN, Pno)
VALUES
(6, 8),
(7, 24),
(8, 30),
(9, 54),
(10, 2);
```

Name	Value
Updated Rows	5
	INSERT INTO Works_on(ESSN, Pno)
	VALUES
	(6, 8),
	(7, 24),
	(8, 30),
	(9, 54),
	(10, 2)
Start time	Fri Apr 19 10:22:15 NPT 2024
Finish time	Fri Apr 19 10:22:15 NPT 2024

Dependents Table:

```
•INSERT INTO Dependents(Did, Dname, Dage, SSN, Drelation)
VALUES
(7, "Alisha", 8, 6, "Sister"),
(8, "Atul", 3, 7, "Brother"),
(9, "Kaushal", 72, 8, "Father"),
(10, "Jenisa", 1, 9, "Daughter"),
(11, "Asbina", 67, 10, "Mother");
```

Name	Value
Updated Rows	5
	INSERT INTO Dependents(Did, Dname, Dage, SSN, Drelation)
	VALUES
	(7, "Alisha", 8, 6, "Sister"),
	(8, "Atul", 3, 7, "Brother"),
	(9, "Kaushal", 72, 8, "Father"),
	(10, "Jenisa", 1, 9, "Daughter"),
	(11, "Asbina", 67, 10, "Mother")
Start time	Fri Apr 19 10:24:59 NPT 2024
Finish time	Fri Apr 19 10:24:59 NPT 2024

2. In the database Yourname_Roll_COMPANY in LAB-1, Create a table PF(PFID, SSN, PFCategoryName, Amount, Start_date, Remarks); where SSN is a foreign key referencing Employee. The start date should be of date type.

```
•CREATE TABLE PF
(
  PFID INT PRIMARY KEY NOT NULL UNIQUE,
  SSN INT,
  PFCategoryName VARCHAR(255),
  Amount DECIMAL(10, 2),
  Start_date DATE,
  Remarks VARCHAR(255),
  FOREIGN KEY (SSN) REFERENCES EMPLOYEE(SSN) ON UPDATE CASCADE ON DELETE CASCADE
);
```

Name	Value
Updated Rows	0
Query	CREATE TABLE PF
	(
	PFID INT PRIMARY KEY NOT NULL UNIQUE,
	SSN INT,
	PFCategoryName VARCHAR(255),
	Amount DECIMAL(10, 2),
	Start_date DATE,
	Remarks VARCHAR(255),
	FOREIGN KEY (SSN) REFERENCES EMPLOYEE(SSN) ON UPDATE CASCADE ON DELETE CASCADE
)
Start time	Thu Apr 18 22:10:13 NPT 2024
Finish time	Thu Apr 18 22:10:13 NPT 2024

3. In the database Yourname_Roll_COMPANY in LAB-1, alter the table Employee and add an attribute Marital_status of type varchar. Update the records in the table and set values of status to “Married”, “Single”, and “Divorced”. At least three records should have status married.

```
•ALTER TABLE EMPLOYEE
  ADD Marital_Status VARCHAR(50)
  CONSTRAINT check_marital_status CHECK (Marital_Status IN ('Married', 'Single', 'Divorced'));
```

Name	Value
Updated Rows	5
	ALTER TABLE EMPLOYEE ADD Marital_Status VARCHAR(50) CONSTRAINT check_marital_status CHECK (Marital_Status IN ('Married', 'Single', 'Divorced'))
Start time	Thu Apr 18 22:22:20 NPT 2024
Finish time	Thu Apr 18 22:22:20 NPT 2024

```
•UPDATE EMPLOYEE
  SET Marital_status = "Married"
  WHERE SSN IN (1, 2, 3);
```

Name	Value
Updated Rows	3
	UPDATE EMPLOYEE SET Marital_status = "Married" WHERE SSN IN (1, 2, 3)
Start time	Thu Apr 18 22:28:41 NPT 2024
Finish time	Thu Apr 18 22:28:41 NPT 2024

```
•UPDATE EMPLOYEE
  SET Marital_status = "Divorced"
  WHERE SSN IN (4, 5, 6);
```

Name	Value
Updated Rows	3
	UPDATE EMPLOYEE SET Marital_status = "Divorced" WHERE SSN IN (4, 5, 6)
Start time	Fri Apr 19 10:29:11 NPT 2024
Finish time	Fri Apr 19 10:29:11 NPT 2024

```

• UPDATE EMPLOYEE
  SET Marital_status = "Single"
  WHERE SSN IN (7, 8, 9, 10);

```

Name	Value
Updated Rows	4
	UPDATE EMPLOYEE
	SET Marital_status = "Single"
	WHERE SSN IN (7, 8, 9, 10)
Start time	Fri Apr 19 10:30:50 NPT 2024
Finish time	Fri Apr 19 10:30:50 NPT 2024

4. Insert ten records in the table PF, where at least two records have the Remarks field NULL.

```

• INSERT INTO PF(PFID, SSN, PFCategoryName, Amount, Start_date, Remarks)
VALUES
(1111, 2, 'Employee_Provident_Fund', 3000, '2078-12-05', NULL),
(2222, 2, 'Pension_Fund', 6000, '2077-12-15', NULL),
(3333, 3, 'Retirement_Fund', 4000, '2075-07-06', NULL),
(4444, 4, 'Children_Savings_Fund', 5000, '2079-11-15', NULL),
(5555, 5, 'General_Provident_Fund', 3500, '2073-07-09', NULL),
(111, 6, 'Employee_Provident_Fund', 4500, '2079-12-05', 'Regular_Monthly_Contribution'),
(222, 7, 'Pension_Fund', 5500, '2078-12-15', 'Monthly_Contribution_For_Pension'),
(333, 8, 'Retirement_Fund', 4700, '2076-07-06', 'Contribution_For_Retirement'),
(444, 9, 'Children_Savings_Fund', 5800, '2080-11-15', 'Contribution_For_Children_Education'),
(555, 10, 'General_Provident_Fund', 2500, '2074-07-09', 'Normal_Monthly_Contribution');

```

Name	Value
Updated Rows	10
Query	INSERT INTO PF(PFID, SSN, PFCategoryName, Amount, Start_date, Remarks) VALUES (1111, 2, 'Employee_Provident_Fund', 3000, '2078-12-05', NULL), (2222, 2, 'Pension_Fund', 6000, '2077-12-15', NULL), (3333, 3, 'Retirement_Fund', 4000, '2075-07-06', NULL), (4444, 4, 'Children_Savings_Fund', 5000, '2079-11-15', NULL), (5555, 5, 'General_Provident_Fund', 3500, '2073-07-09', NULL), (111, 6, 'Employee_Provident_Fund', 4500, '2079-12-05', 'Regular_Monthly_Contribution'), (222, 7, 'Pension_Fund', 5500, '2078-12-15', 'Monthly_Contribution_For_Pension'), (333, 8, 'Retirement_Fund', 4700, '2076-07-06', 'Contribution_For_Retirement'), (444, 9, 'Children_Savings_Fund', 5800, '2080-11-15', 'Contribution_For_Children_Education'), (555, 10, 'General_Provident_Fund', 2500, '2074-07-09', 'Normal_Monthly_Contribution')
Start time	Fri Apr 19 10:33:59 NPT 2024
Finish time	Fri Apr 19 10:33:59 NPT 2024

5. Select all employees.

SELECT * FROM EMPLOYEE;

	SSN	Ename	Gender	Bdate	Address	Salary	Ono	Years_of_experience	Marital_Status
1	2	Gaurav	M	2056-07-24	MacheGaun	30,000	10	1	Married
2	3	Anish	M	2053-12-05	Budhanilkandha	95,000	2	3	Married
3	4	Prabhat	M	2054-12-15	Nawalparasi	80,000	11	2	Divorced
4	5	Suman	M	2052-07-06	Sunwal	75,000	33	3	Divorced
5	6	Ashmita	F	2053-12-05	Brussels	95,000	4	5	Divorced
6	7	Kabita	F	2054-12-15	Delhi	80,000	12	4	Single
7	8	Kusum	F	2052-07-06	Sunwal	75,000	15	2	Single
8	9	Pratigya	F	2057-11-15	Banglore	80,000	27	3	Single
9	10	Abin	M	2051-07-09	Sunwal	75,000	1	2	Single

6. Select employees having a salary greater than 30000 and list the results in descending order of Ename.

```
# 6. Select employees having salary greater than 30000 and list the results in descending order of Ename.
SELECT * FROM EMPLOYEE
WHERE Salary > 30000
ORDER BY Ename DESC;
```

	SSN	Ename	Gender	Bdate	Address	Salary	Ono	Years_of_experience	Marital_Status
1	5	Suman	M	2052-07-06	Sunwal	75,000	33	3	Divorced
2	9	Pratigya	F	2057-11-15	Banglore	80,000	27	3	Single
3	4	Prabhat	M	2054-12-15	Nawalparasi	80,000	11	2	Divorced
4	8	Kusum	F	2052-07-06	Sunwal	75,000	15	2	Single
5	7	Kabita	F	2054-12-15	Delhi	80,000	12	4	Single
6	6	Ashmita	F	2053-12-05	Brussels	95,000	4	5	Divorced
7	3	Anish	M	2053-12-05	Budhanilkandha	95,000	2	3	Married
8	10	Abin	M	2051-07-09	Sunwal	75,000	1	2	Single

7. Retrieve the tuples from the project table. Sort the tuples based on Pname.

SELECT * FROM Project
ORDER BY Pname ASC;

Project 1 X

Enter a SQL expression to filter results (use Ctrl+Space)

	Pnumber	Pname	Proj_location	Onumber
1	2	Abin_ProjML	Lalitpur	1
2	4	Anish_ProjPandas	Chitwan	2
3	8	Ashmita_ProjMDS	Belgium	4
4	20	Gaurav_ProjPython	Butwal	10
5	24	Kabita_ProjDBMS	Delhi	12
6	30	Kusum_ProjPython	Nepal	15
7	22	Prabhat_ProjDBMS	USA	11
8	44	Prabhat_ProjMDS	Kathmandu	22
9	54	Pratigya_ProjPandas	Banglore	27
10	66	Suman_ProjML	UK	33

8. Select the employees having a salary greater than 30000 and years of experience less than 3 years.

SELECT * FROM EMPLOYEE
WHERE Salary > 30000 AND Years_of_experience < 3;

EMPLOYEE 1 X

Enter a SQL expression to filter results (use Ctrl+Space)

	SSN	Ename	Gender	Bdate	Address	Salary	Ono	Years_of_experience	Marital_Status
1	4	Prabhat	M	2054-12-15	Nawalparasi	80,000	11	2	Divorced
2	8	Kusum	F	2052-07-06	Sunwal	75,000	15	2	Single
3	10	Abin	M	2051-07-09	Sunwal	75,000	1	2	Single

9. Select the name, address, and salary of employees having a salary greater than 30000 or years of experience less than 3 years.

```

SELECT Ename, Address, Salary
FROM EMPLOYEE
WHERE Salary > 30000
OR Years_of_experience < 3;

```

EMPLOYEE 1 X

SELECT Ename, Address, Salary FROM EMPLOYEE WHERE Salary > 30000 OR Years_of_experience < 3; Enter a SQL expression to filter results

	Ename	Address	Salary
1	Gaurav	MacheGaun	30,000
2	Anish	Budhanilkandha	95,000
3	Prabhat	Nawalparasi	80,000
4	Suman	Sunwal	75,000
5	Ashmita	Brussels	95,000
6	Kabita	Delhi	80,000
7	Kusum	Sunwal	75,000
8	Pratigya	Banglore	80,000
9	Abin	Sunwal	75,000

10. Select all dependents.

```

SELECT * FROM Dependents;

```

Dependents 1 X

SELECT * FROM Dependents; Enter a SQL expression to filter results (use Ctrl+Space)

	Did	Dname	Dage	SSN	Drelation
1	1	Rihans	6	[NULL]	Brother
2	2	Kabya	8	[NULL]	Sister
3	3	Kabir	3	4	Brother
4	4	Subin	2	5	Son
5	5	Anisha	1	3	Daughter
6	6	Gauri	9	2	Sister
7	7	Alisha	8	6	Sister
8	8	Atul	3	7	Brother
9	9	Kaushal	72	8	Father
10	10	Jenisa	1	9	Daughter
11	11	Asbina	67	10	Mother

11. Select the name and age of the dependents an age between 5 to 60.

• `SELECT Dname, Dage FROM Dependents WHERE Dage BETWEEN 5 AND 60;`

Dependents 1 ×

SELECT Dname, Dage FROM Dependents WHERE Dage BETWEEN *Enter a SQL expression*

	ABC Dname	123 Dage	
1	Rihans	6	
2	Kabya	8	
3	Gauri	9	
4	Alisha	8	

12. Select the offices having office names like “%Nt%” as a substring.

• `SELECT * FROM Office WHERE Oname LIKE '%NT%';`

Office 1 ×

SELECT * FROM Office WHERE Oname LIKE '%NT%' *Enter a SQL expression to filter results (use C*

	123 Onumber	ABC Oname	ABC Country
1	11	Prabhat_Ntc_22	India

13. Select the offices having office numbers in (1, 2, 3).

•SELECT * FROM Office
WHERE Onumber IN (1, 2, 3);

Office 1 x

SELECT * FROM Office WHERE Onumber IN (1, 2, 3) Enter a SQL expression to filter results (use Ctrl+Space)

	Onumber	Oname	Country
1	1	Abin_Office_1	Nepal
2	2	Anish_Office_2	Canada

14. Select the records from the PF table where remarks are NULL

•SELECT * FROM PF
WHERE Remarks IS NULL;

PF 1 x

SELECT * FROM PF WHERE Remarks IS NULL Enter a SQL expression to filter results (use Ctrl+Space)

	PFID	SSN	PFCategoryName	Amount	Start_date	Remarks
1	1,111	2	Employee_Provident_Fund	3,000	2078-12-05	[NULL]
2	2,222	2	Pension_Fund	6,000	2077-12-15	[NULL]
3	3,333	3	Retirement_Fund	4,000	2075-07-06	[NULL]
4	4,444	4	Children_Savings_Fund	5,000	2079-11-15	[NULL]
5	5,555	5	General_Provident_Fund	3,500	2073-07-09	[NULL]

15. Select PF category name, amount, start date, and remarks from PF where remarks are not NULL

•SELECT PFCategoryName, Amount, Start_date, Remarks
FROM PF
WHERE Remarks IS NOT NULL;

PF 1 x

SELECT PFCategoryName, Amount, Start_date, Remarks FROM PF Enter a SQL expression to filter results (use Ctrl+Space)

	PFCategoryName	Amount	Start_date	Remarks
1	Employee_Provident_Fund	4,500	2079-12-05	Regular_Monthly_Contribution
2	Pension_Fund	5,500	2078-12-15	Monthly_Contribution_For_Pension
3	Retirement_Fund	4,700	2076-07-06	Contribution_For_Retirement
4	Children_Savings_Fund	5,800	2080-11-15	Contribution_For_Children_Education
5	General_Provident_Fund	2,500	2074-07-09	Normal_Monthly_Contribution

16. Select the five records from the PF table using the LIMIT Clause.

```
SELECT * FROM PF LIMIT 5;
```

	PFID	SSN	PFCategoryName	Amount	Start_date	Remarks
1	111	6	Employee_Provident_Fund	4,500	2079-12-05	Regular_Monthly_Contribution
2	222	7	Pension_Fund	5,500	2078-12-15	Monthly_Contribution_For_Pension
3	333	8	Retirement_Fund	4,700	2076-07-06	Contribution_For_Retirement
4	444	9	Children_Savings_Fund	5,800	2080-11-15	Contribution_For_Children_Education
5	555	10	General_Provident_Fund	2,500	2074-07-09	Normal_Monthly_Contribution

17. Select the category name of PF where the amount is not equal to 3000.

```
SELECT PFCategoryName FROM PF WHERE Amount != 3000;
```

	PFCategoryName
1	Employee_Provident_Fund
2	Pension_Fund
3	Retirement_Fund
4	Children_Savings_Fund
5	General_Provident_Fund
6	Pension_Fund
7	Retirement_Fund
8	Children_Savings_Fund
9	General_Provident_Fund

18. Select all employees who work on a project no 2.

```
SELECT * FROM EMPLOYEE e
JOIN Works_on wo ON
e.SSN = wo.ESSN
WHERE wo.Pno = 2;
```

	SSN	Ename	Gender	Bdate	Address	Salary	Ono	Years_of_exp	Marital_Status	ESSN	Pno
1	10	Abin	M	2051-07-09	Sunwal	75,000	1	2	Single	10	2