

## 1. Creating Database Table

### a. Creating Table Manager

```
CREATE TABLE Manager (ManagerID Int NOT NULL AUTO_INCREMENT PRIMARY KEY, ManagerName varchar (255) NOT NULL);
```

### b. Creating Table Department

```
CREATE TABLE Department (DeptID Int NOT NULL AUTO_INCREMENT PRIMARY KEY, DeptName varchar (255) NOT NULL, DeptCode varchar (100) Null, ParentDeptID Int NOT NULL, ManagerId Int NOT NULL, Description Text NOT NULL, Active BOOLEAN NOT NULL, CONSTRAINT FK_Manager FOREIGN KEY (ManagerId) REFERENCES manager (ManagerID));
```

### c. Creating Table Employee

```
CREATE TABLE Employee ( EmployeeID Int NOT NULL AUTO_INCREMENT PRIMARY KEY, FirstName varchar (255) NOT NULL, MiddleName varchar (255) NULL, LastName varchar (255) NOT NULL, JoinDATE datetime NULL, MonthlySalary decimal (10, 5) NULL, DeptID Int NOT NULL, CONSTRAINT FK_Dept FOREIGN KEY (DeptID) REFERENCES department (DeptID));
```

## 2. Insert Data into Table

### a. Table Manager

```
INSERT INTO manager (ManagerID, ManagerName) VALUES (1, 'Shyam Shreatha'), (2, 'Hari Karki'), (3, 'Rajesh Hamal'), (4, 'Ajay Lama');
```

### b. Table Department

```
INSERT INTO `department` (DeptID, DeptName, DeptCode, ParentDeptID, ManagerId, Description, Active) VALUES (1, 'Sales', '01', 1, 1, 'Sales Department', 1), (2, 'Marketing', '02', 2, 2, 'Marketing Department', 1), (3, 'Designing', '03', 3, 3, 'Designing Department', 1);
```

### c. Table Employee

```
INSERT INTO employee (EmployeeID, FirstName, LastName, JoinDATE, MonthlySalary, DeptID) VALUES (1, 'Aashish', 'Thapa', '2022-01-18 11:34:26.689553', 70000.00, 1), (2, 'Ashok', 'Thapa', '2022-04-10 11:34:26.689553', 50000.0, 2), (3, 'Sandesh', 'Baral', '2021-01-18 11:34:26.689553', 90000, 1), (4, 'Rahul', 'singh', '2022-06-18 11:34:26.689553', 40000, 3), (5, 'Himal', 'Rana', '2022-06-18 11:34:26.689553', 880000, 1), (6, 'Suman', 'Nepal', '2022-06-18 11:34:26.689553', 80000, 2), (7, 'Adhikar', 'Chaudhary', '2022-06-18 11:34:26.689553', 50000, 2), (8, 'Bijay', 'Rajali', '2022-06-18 11:34:26.689553', 60000, 3);
```

## Questions & Answers

- Write a Single Query to find the Total Earnings by Employees grouped by Departments.

```
SELECT DeptID, SUM(MonthlySalary) AS "Total Salary" FROM employee group by deptID;
```

Showing rows 0 - 2 (3 total, Query took 0.0014 seconds.)

```
SELECT DeptID, SUM(MonthlySalary) AS "Total Salary" FROM employee group by deptID;
```

☐ Profiling [\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Explain SQL \]](#) [\[ Create PHP code \]](#) [\[ Refresh \]](#)

☐ Show all | Number of rows: 

25

 Filter rows: 

Search this table

Extra options

	DeptID	Total Salary
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	1	259999.99999
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	2	180000.00000
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	3	100000.00000

☐ Check all

With selected: [Edit](#) [Copy](#) [Delete](#) [Export](#)

- Write a Single Query to find the list of Employees belonging to Department Sales, with service length of more than 6 months.

```
SELECT * from employee WHERE TIMESTAMPDIFF(MONTH, JoinDATE, now()) > 6 AND DeptID=1;
```

Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)

```
SELECT * from employee WHERE TIMESTAMPDIFF(MONTH, JoinDATE, now()) > 6 AND DeptID=1;
```

☐ Profiling [\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Explain SQL \]](#) [\[ Create PHP code \]](#) [\[ Refresh \]](#)

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

	EmployeeID	FirstName	MiddleName	LastName	JoinDATE	MonthlySalary	DeptID
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	Sandesh	NULL	Baral	2021-01-18 11:34:26	90000.00000	1

☐ Check all | With selected: ☐ Edit ☐ Copy ☐ Delete ☐ Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table

- Write a Single Query to list Employees with their Department Name and their Manager Name.

```
SELECT E.FirstName, D.DeptName, M.ManagerName FROM employee E INNER JOIN department D ON e.DeptID = D.DeptID Inner JOIN manager M on D.ManagerId=M.ManagerID;
```

Showing rows 0 - 7 (8 total, Query took 0.0004 seconds.)

```
SELECT E.FirstName, D.DeptName, M.ManagerName FROM employee E INNER JOIN department D ON e.DeptID = D.DeptID Inner JOIN manager M on D.ManagerId=M.ManagerID;
```

☐ Profiling [\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Explain SQL \]](#) [\[ Create PHP code \]](#) [\[ Refresh \]](#)

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

FirstName	DeptName	ManagerName
Aashish	Sales	Shyam Shreatha
Sandesh	Sales	Shyam Shreatha
Himal	Sales	Shyam Shreatha
Ashok	Marketing	Hari Karki
Suman	Marketing	Hari Karki
Adhikar	Marketing	Hari Karki
Rahul	Designing	Rajesh Hamal
Bijay	Designing	Rajesh Hamal