DBMS MINI PROJECT

EMPLOYEE MANAGEMENT SYSTEM

SUBMITTED BY:

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SUBJECT NAME: DATABASE MANAGEMENT SYSTEM

SUBJECT CODE: 18CSC303J

BRANCH – COMPUTER SCIENCE AND ENGINEERING
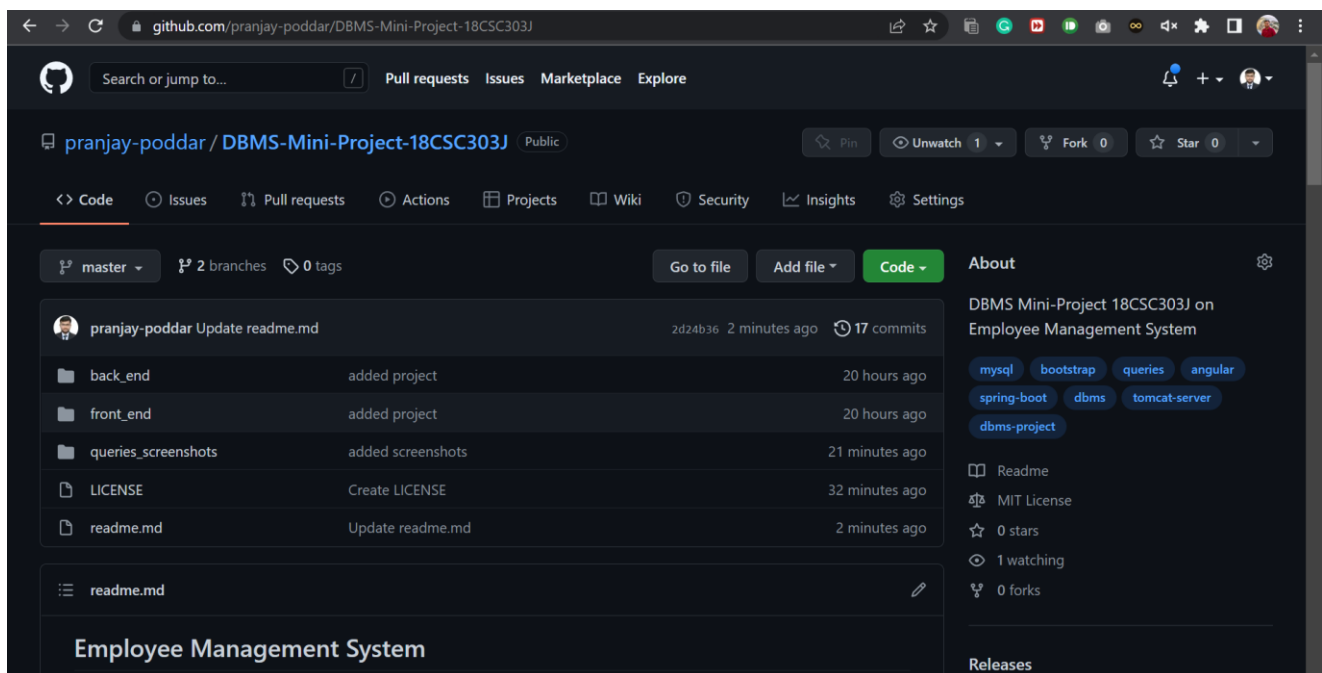
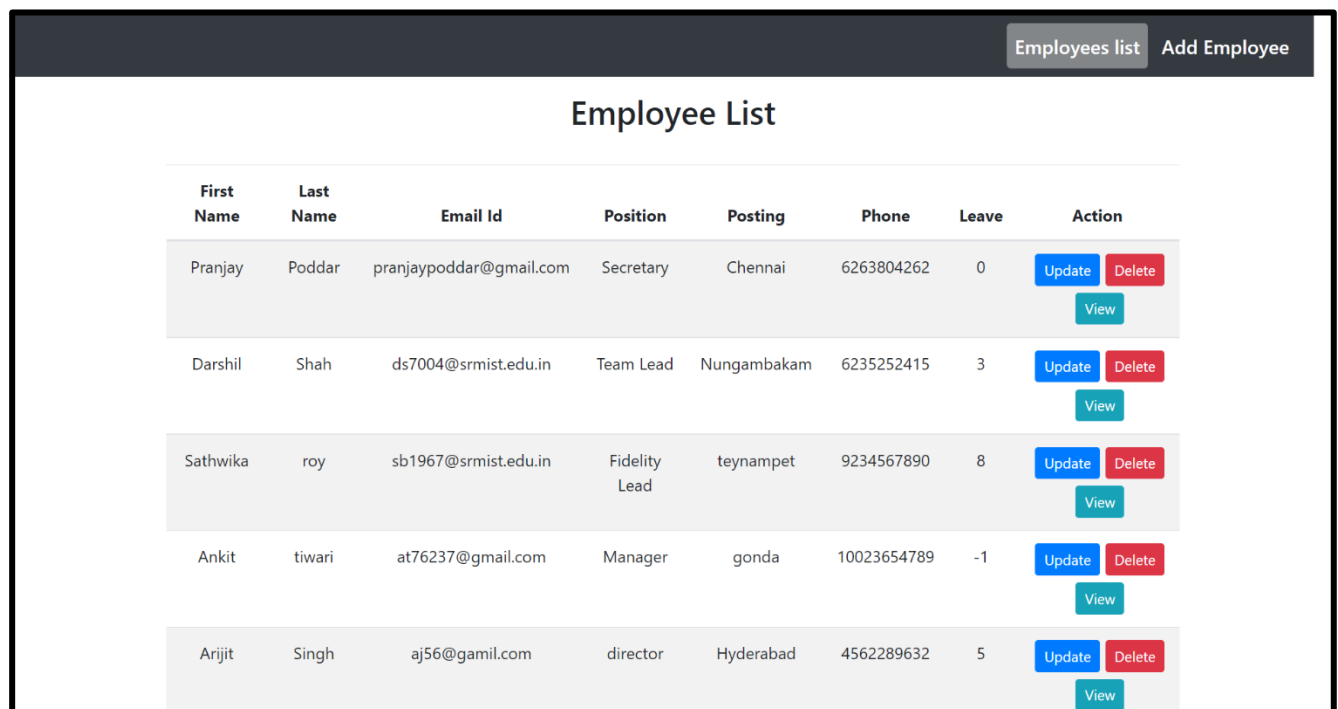**SPECIALISATION –** CLOUD COMPUTING

FACULTY NAME - Dr. S. SURESH

EMPLOYEE MANAGEMENT SYSTEM

GitHub Url: https://github.com/pranjay-poddar/DBMS-Mini-Project-18CSC303J

GitHub Repository Screenshots:

Front End User Interface:

Add Employee

First Name

Last Name

Email Id

Phone

Posting

Position

Leave

Submit

Employee Details

First Name:	Pranjay
Last Name:	Poddar
Email Id:	pranjaypoddar@gmail.com
Phone No.:	6263804262
Posting:	Chennai
Position:	Secretary
Leave:	0

Update Employee

First Name

Pranjay

Last Name

Poddar

Email Id

pranjaypoddar@gmail.com

Phone

6263804262

Posting

Chennai

Position

Secretary

Leave

0

Submit

Frontend Code:

Screenshot 1 — `employee-details.component.spec.ts`:

```typescript
import { ComponentFixture, TestBed } from '@angular/core/testing';

import { EmployeeDetailsComponent } from './employee-details.component';

describe('EmployeeDetailsComponent', () => {
  let component: EmployeeDetailsComponent;
  let fixture: ComponentFixture<EmployeeDetailsComponent>;

  beforeEach(async () => {
    await TestBed.configureTestingModule({
      declarations: [ EmployeeDetailsComponent ]
    })
    .compileComponents();
  });

  beforeEach(() => {
    fixture = TestBed.createComponent(EmployeeDetailsComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });

  it('should create', () => {
    expect(component).toBeTruthy();
  });
});
```

TERMINAL: √ Compiled successfully.

Screenshot 2 — `update-employee.component.ts`:

```typescript
import { EmployeeService } from './../employee.service';
import { Component, OnInit } from '@angular/core';
import { Employee } from '../employee';
import { ActivatedRoute, Router } from '@angular/router';

@Component({
  selector: 'app-update-employee',
  templateUrl: './update-employee.component.html',
  styleUrls: ['./update-employee.component.scss']
})
export class UpdateEmployeeComponent implements OnInit {

  employee : Employee = new Employee ;
  id !:number;
  constructor(private employeeService:EmployeeService, private route: ActivatedRoute,private route

  ngOnInit(): void {
    this.id = this.route.snapshot.params['id'];
    this.employeeService.getEmployeeById(this.id).subscribe(data=>{
      this.employee = data;

    },error => console.log(error));
  }

  onSubmit(){
```

TERMINAL:
√ Compiled successfully.

Build at: 2022-04-12T13:14:20.906Z - Hash: 683a7c7107318250bbac - Time: 567ms

√ Compiled successfully.
√ Browser application bundle generation complete.
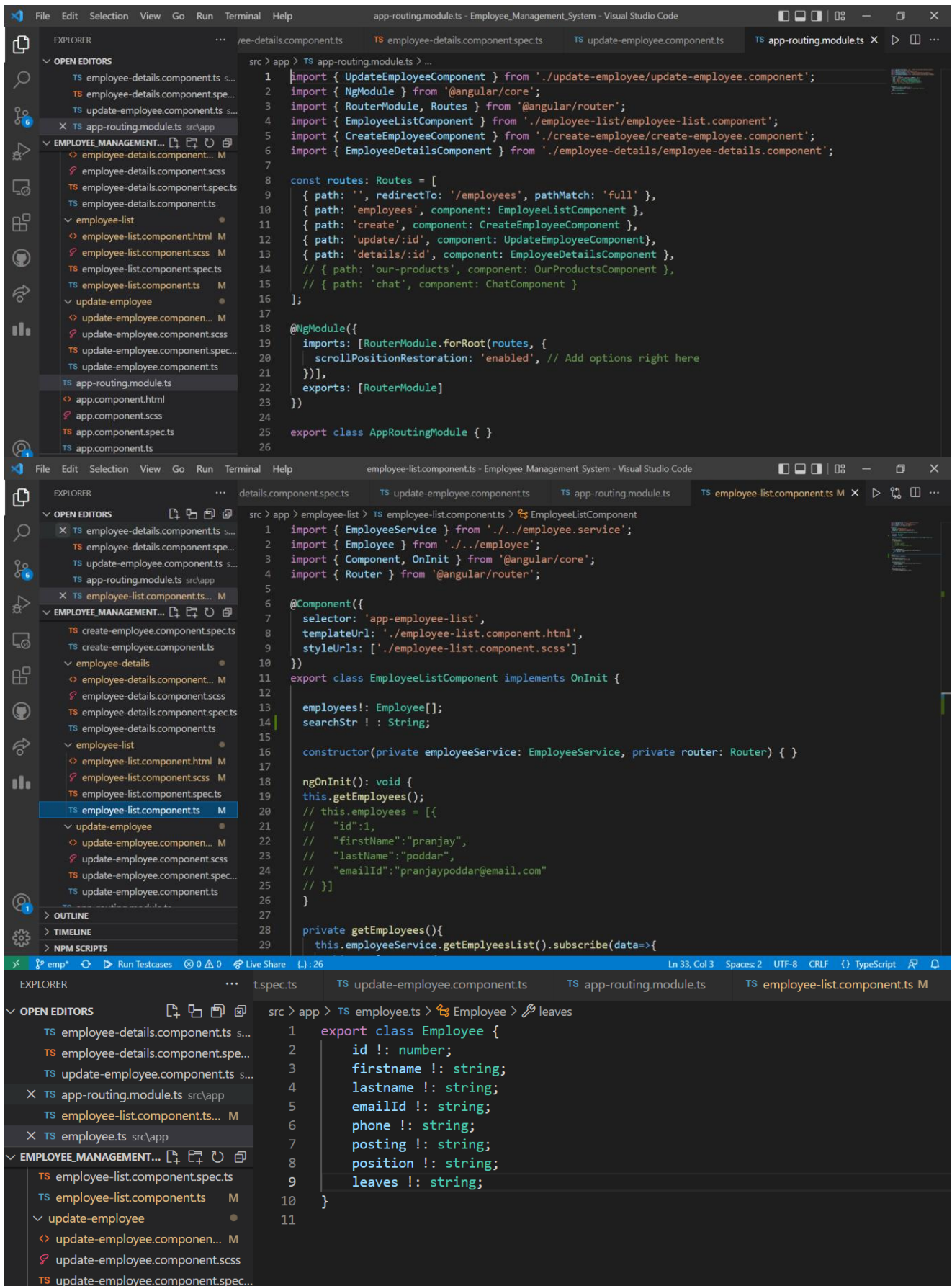
```
Initial Chunk Files | Names |      Size
main.js             | main  | 71.12 kB
```

4 unchanged chunks

Build at: 2022-04-12T13:14:37.927Z - Hash: b4e64a3a4052a94367c0 - Time: 388ms

√ Compiled successfully.
√ Browser application bundle generation complete.

```
Initial Chunk Files | Names |      Size
main.js             | main  | 70.20 kB
```

```typescript
import { UpdateEmployeeComponent } from './update-employee/update-employee.component';
import { NgModule } from '@angular/core';
import { RouterModule, Routes } from '@angular/router';
import { EmployeeListComponent } from './employee-list/employee-list.component';
import { CreateEmployeeComponent } from './create-employee/create-employee.component';
import { EmployeeDetailsComponent } from './employee-details/employee-details.component';

const routes: Routes = [
  { path: '', redirectTo: '/employees', pathMatch: 'full' },
  { path: 'employees', component: EmployeeListComponent },
  { path: 'create', component: CreateEmployeeComponent },
  { path: 'update/:id', component: UpdateEmployeeComponent},
  { path: 'details/:id', component: EmployeeDetailsComponent },
  // { path: 'our-products', component: OurProductsComponent },
  // { path: 'chat', component: ChatComponent }
];

@NgModule({
  imports: [RouterModule.forRoot(routes, {
    scrollPositionRestoration: 'enabled', // Add options right here
  })],
  exports: [RouterModule]
})

export class AppRoutingModule { }
```

```typescript
import { EmployeeService } from './../employee.service';
import { Employee } from './../employee';
import { Component, OnInit } from '@angular/core';
import { Router } from '@angular/router';

@Component({
  selector: 'app-employee-list',
  templateUrl: './employee-list.component.html',
  styleUrls: ['./employee-list.component.scss']
})
export class EmployeeListComponent implements OnInit {

  employees!: Employee[];
  searchStr ! : String;

  constructor(private employeeService: EmployeeService, private router: Router) { }

  ngOnInit(): void {
  this.getEmployees();
  // this.employees = [{
  //   "id":1,
  //   "firstName":"pranjay",
  //   "lastName":"poddar",
  //   "emailId":"pranjaypoddar@email.com"
  // }]
  }

  private getEmployees(){
    this.employeeService.getEmployeesList().subscribe(data=>{
```

```typescript
export class Employee {
    id !: number;
    firstname !: string;
    lastname !: string;
    emailId !: string;
    phone !: string;
    posting !: string;
    position !: string;
    leaves !: string;
}
```

Backend Code:

Local Host:

[{"id":6,"firstname":"Pranjay ","emailId":"pranjaypoddar@gmail.com","posting":"Chennai","phone":"6263804262","position":"Secretary","leaves":"0","lastname":"Poddar"},
{"id":7,"firstname":"Darshil ","emailId":"ds7004@srmist.edu.in","posting":"Nungambakam","phone":"6235252415","position":"Team Lead","leaves":"3","lastname":"Shah"},
{"id":8,"firstname":"Sathwika ","emailId":"sb1967@srmist.edu.in","posting":"teynampet","phone":"9234567890","position":"Fidelity Lead","leaves":"8","lastname":"roy"},
{"id":10,"firstname":"Ankit","emailId":"at76237@gmail.com","posting":"gonda","phone":"10023654789","position":"Manager","leaves":"-1","lastname":"tiwari"},
{"id":14,"firstname":"Arijit ","emailId":"aj56@gamil.com","posting":"Hyderabad","phone":"4562289632","position":"director","leaves":"5","lastname":"Singh"}]

```java
    private String last_name;

    @Column(name = "email_id")
    private String emailId;

    @Column(name = "posting")
    private String posting;

    @Column(name = "phone")
    private String phone;

    @Column(name = "position")
    private String position;

    @Column(name = "leaves")
        private String leaves;


    public Employee() {
    }
```



```java
package net.ems.springboot.dto;


public class EmployeeSearchDto {
    private String first_name;
    private String last_name;
    private String position;
    private String leaves;
    private String posting;
    private String email_id;
    private String phone;

    public String getFname() {
        return first_name;
    }
    public void setFname(String fname) {
        this.first_name = fname;
    }
    public String getLname() {
        return last_name;
    }
    public void setLname(String lname) {
        this.last_name = lname;
    }
    public String getPosition() {
        return position;
    }
    public void setPosition(String position) {
        this.position = position;
    }
    public String getLeaves() {
        return leaves;
    }
    public void setLeaves(String leaves) {
        this.leaves = leaves;
    }
    public String getPosting() {
```

Miscellaneous Queries:

```
mysql> create database emsDatabase;
Query OK, 1 row affected (0.49 sec)

mysql> use emsDatabase;
Database changed
```

```
mysql> create table employee(eid int,ename varchar(25),email varchar(25),depid int,posid int,primary key(eid),foreign key(depid) references department(did),fo
reign key(eid) references pos(pid));
Query OK, 0 rows affected (1.93 sec)

mysql> insert into department values(1,'FINANCE', 'DEAL WITH FINANCE');
Query OK, 1 row affected (0.27 sec)

mysql> insert into department values(2,'GRAPHICS', 'DEAL WITH GRAPHICS');
Query OK, 1 row affected (0.11 sec)

mysql> insert into department values(3,'HUMAN RESOURCE', 'DEAL WITH HR');
Query OK, 1 row affected (0.12 sec)

mysql> insert into department values(4,'TECHNICAL', 'DEAL WITH TECH');
Query OK, 1 row affected (0.28 sec)

mysql> insert into department values(5,'HARDWARE', 'DEAL WITH HARDWARE');
Query OK, 1 row affected (0.07 sec)
```

```
mysql> insert into pos values(1,'MANAGER','CHENNAI');
Query OK, 1 row affected (0.11 sec)

mysql> insert into pos values(2,'DIRECTOR','MUMBAI');
Query OK, 1 row affected (0.10 sec)

mysql> insert into pos values(2,'MANAGER','DELHI');
ERROR 1062 (23000): Duplicate entry '2' for key 'pos.PRIMARY'
mysql> insert into pos values(3,'MANAGER','DELHI');
Query OK, 1 row affected (0.10 sec)

mysql> insert into pos values(4,'SR. DEVELOPER','AGRA');
Query OK, 1 row affected (0.13 sec)
```

```
mysql> create table login(logid int,username varchar(25),password varchar(25),primary key(logid));
Query OK, 0 rows affected (2.94 sec)

mysql> insert into login values(1,"pranjaypoddar","helloworld");
Query OK, 1 row affected (0.16 sec)

mysql> insert into login values(2,"ankittiwari","hworld");
Query OK, 1 row affected (0.14 sec)

mysql> insert into login values(3,"akashchopra","hiworld");
Query OK, 1 row affected (0.12 sec)

mysql> insert into login values(4,"malinga","hldl");
Query OK, 1 row affected (0.24 sec)

mysql> insert into login values(4,"dhoni","raina");
ERROR 1062 (23000): Duplicate entry '4' for key 'login.PRIMARY'
mysql> insert into login values(5,"dhoni","raina");
Query OK, 1 row affected (0.10 sec)

mysql>
```

Database Tables:

```
mysql> show tables;
+----------------------+
| Tables_in_emsdatabase |
+----------------------+
| department           |
| empleaves            |
| employee             |
| login                |
| pos                  |
+----------------------+
5 rows in set (0.04 sec)

mysql>
```

Employee Table Entities:

```
mysql> desc employee;
+-------+-------------+------+-----+---------+-------+
| Field | Type        | Null | Key | Default | Extra |
+-------+-------------+------+-----+---------+-------+
| eid   | int         | NO   | PRI | NULL    |       |
| ename | varchar(25) | YES  |     | NULL    |       |
| email | varchar(25) | YES  |     | NULL    |       |
| depid | int         | YES  | MUL | NULL    |       |
| posid | int         | YES  |     | NULL    |       |
+-------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

```
mysql> select * from employee;
+-----+-------------+---------------------------+-------+-------+
| eid | ename       | email                     | depid | posid |
+-----+-------------+---------------------------+-------+-------+
|   1 | PRANJAY     | PRANJAYPODDAR@GMAIL.COM   |     1 |     2 |
|   2 | SHREYANSH   | SP@GMAIL.COM              |     2 |     3 |
|   3 | NISHANT     | NS@GMAIL.COM              |     4 |     1 |
|   4 | SUBHO       | SB12@GMAIL.COM            |     3 |     4 |
|   5 | ANKITA      | AK125@GMAIL.COM           |     5 |     2 |
|   6 | ankittiwari | ak76@gamil.com            |     2 |     2 |
|   7 | rohan       | rohan@gmail.com           |     4 |     6 |
|   8 | sathwik     | sat@gmail.com             |     5 |     6 |
|   9 | akash       | sdt@gmail.com             |     3 |     2 |
|  10 | aman        | sat@gmail.com             |     5 |     1 |
+-----+-------------+---------------------------+-------+-------+
10 rows in set (0.00 sec)
```

Department Table Entities:

```
mysql> DESC DEPARTMENT;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| did     | int         | NO   | PRI | NULL    |       |
| depname | varchar(25) | YES  |     | NULL    |       |
| dsc     | varchar(25) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> SELECT * FROM DEPARTMENT;
+-----+----------------+-----------------------+
| did | depname        | dsc                   |
+-----+----------------+-----------------------+
|   1 | FINANCE        | DEAL WITH FINANCE     |
|   2 | GRAPHICS       | DEAL WITH GRAPHICS    |
|   3 | HUMAN RESOURCE | DEAL WITH HR          |
|   4 | TECHNICAL      | DEAL WITH TECH        |
|   5 | HARDWARE       | DEAL WITH HARDWARE    |
|   6 | DEVELOPMENT    | DEAL WITH DEV TECH    |
|   7 | MARKETING      | DEALS WITH PROMOTIONS |
|   8 | ANALYTICS      | DEALS WITH STATS      |
|   9 | CONTENT        | DEALS WITH CONTENT    |
|  10 | SALES          | DEALS WITH SALES      |
+-----+----------------+-----------------------+
10 rows in set (0.00 sec)

mysql>
```

Position Table Entities:

```
mysql> DESC POS;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| pid     | int         | NO   | PRI | NULL    |       |
| pname   | varchar(25) | YES  |     | NULL    |       |
| posting | varchar(25) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> SELECT * FROM POS;
+-----+-----------------+-----------+
| pid | pname           | posting   |
+-----+-----------------+-----------+
|   1 | MANAGER         | CHENNAI   |
|   2 | DIRECTOR        | MUMBAI    |
|   3 | MANAGER         | DELHI     |
|   4 | SR. DEVELOPER   | AGRA      |
|   5 | JR. DEVELOPER   | AHMEDABAD |
|   6 | TECH LEAD       | JABALPUR  |
|   7 | SECRETARY       | DELHI     |
|   8 | JOINT SECRETARY | NOIDA     |
|   9 | JR. MANAGER     | KOTA      |
|  10 | ASSOCIATE       | JAIPUR    |
+-----+-----------------+-----------+
10 rows in set (0.06 sec)
```

Leave Table Entities:

```
mysql> desc empleaves;
+----------+------+------+-----+---------+-------+
| Field    | Type | Null | Key | Default | Extra |
+----------+------+------+-----+---------+-------+
| lid      | int  | NO   | PRI | NULL    |       |
| empleave | int  | YES  |     | NULL    |       |
| empid    | int  | YES  | MUL | NULL    |       |
+----------+------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> select * from empleaves;
+------+----------+-------+
| lid  | empleave | empid |
+------+----------+-------+
|    1 |        3 |     2 |
|    2 |        6 |     1 |
|    3 |        1 |     4 |
|    4 |        8 |     2 |
|    5 |        3 |     1 |
+------+----------+-------+
5 rows in set (0.02 sec)

mysql>
```

Login Table Entities:

```
mysql> desc login;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| logid    | int         | NO   | PRI | NULL    |       |
| username | varchar(25) | YES  |     | NULL    |       |
| password | varchar(25) | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> select * from login;
+-------+--------------+------------+
| logid | username     | password   |
+-------+--------------+------------+
|     1 | pranjaypoddar | helloworld |
|     2 | ankittiwari  | hworld     |
|     3 | akashchopra  | hiworld    |
|     4 | malinga      | hldl       |
|     5 | dhoni        | raina      |
+-------+--------------+------------+
5 rows in set (0.00 sec)
```

Queries:

```
mysql> use emsdatabase;
Database changed
mysql> select emp.ename,l.empleave from employee emp join empleaves l on l.empid = emp.eid;
+-----------+----------+
| ename     | empleave |
+-----------+----------+
| SHREYANSH |        3 |
| PRANJAY   |        6 |
| SUBHO     |        1 |
| SHREYANSH |        8 |
| PRANJAY   |        3 |
+-----------+----------+
5 rows in set (0.02 sec)

mysql> SELECT DEP.DEPNAME,EMP.ENAME FROM DEPARTMENT DEP JOIN EMPLOYEE EMP ON DEP.DID = EMP.DEPID;
+----------------+-------------+
| DEPNAME        | ENAME       |
+----------------+-------------+
| FINANCE        | PRANJAY     |
| GRAPHICS       | SHREYANSH   |
| TECHNICAL      | NISHANT     |
| HUMAN RESOURCE | SUBHO       |
| HARDWARE       | ANKITA      |
| GRAPHICS       | ankittiwari |
| TECHNICAL      | rohan       |
| HARDWARE       | sathwik     |
| HUMAN RESOURCE | akash       |
| HARDWARE       | aman        |
+----------------+-------------+
10 rows in set (0.00 sec)

mysql> select ename from employee where eid = 1;
+---------+
| ename   |
+---------+
| PRANJAY |
+---------+
1 row in set (0.00 sec)

mysql> select depname from department where did > 1 AND did < 4;
+----------------+
| depname        |
+----------------+
| GRAPHICS       |
| HUMAN RESOURCE |
+----------------+
2 rows in set (0.00 sec)

mysql> select ename from employee order by ename asc;
+-------------+
| ename       |
+-------------+
| akash       |
| aman        |
| ANKITA      |
| ankittiwari |
| NISHANT     |
| PRANJAY     |
| rohan       |
| sathwik     |
| SHREYANSH   |
| SUBHO       |
+-------------+
10 rows in set (0.00 sec)
```

```
mysql> select * from empleaves where empleave IS NOT NULL;
+-----+----------+-------+
| lid | empleave | empid |
+-----+----------+-------+
|   1 |        3 |     2 |
|   2 |        6 |     1 |
|   3 |        1 |     4 |
|   4 |        8 |     2 |
|   5 |        3 |     1 |
+-----+----------+-------+
5 rows in set (0.00 sec)

mysql> select MAX(l.empleave) AS Maximum_Leaves,e.ename from empleaves l join employee e on l.empid = e.eid;
+----------------+-----------+
| Maximum_Leaves | ename     |
+----------------+-----------+
|              8 | SHREYANSH |
+----------------+-----------+
1 row in set (0.00 sec)

mysql> select count(*) from employee where eid > 2;
+----------+
| count(*) |
+----------+
|        8 |
+----------+
1 row in set (0.00 sec)

mysql> SELECT AVG(DEPID) FROM EMPLOYEE;
+------------+
| AVG(DEPID) |
+------------+
|     3.4000 |
+------------+
1 row in set (0.00 sec)
```

```
mysql>  select ename,email,eid,depid from employee where ename like "s%";
+-----------+----------------+-----+-------+
| ename     | email          | eid | depid |
+-----------+----------------+-----+-------+
| SHREYANSH | SP@GMAIL.COM   |   2 |     2 |
| SUBHO     | SB12@GMAIL.COM |   4 |     3 |
| sathwik   | sat@gmail.com  |   8 |     5 |
+-----------+----------------+-----+-------+
3 rows in set (0.00 sec)

mysql> select count(did),depname,dsc from department group by depname;
+------------+----------------+-----------------------+
| count(did) | depname        | dsc                   |
+------------+----------------+-----------------------+
|          1 | FINANCE        | DEAL WITH FINANCE     |
|          1 | GRAPHICS       | DEAL WITH GRAPHICS    |
|          1 | HUMAN RESOURCE | DEAL WITH HR          |
|          1 | TECHNICAL      | DEAL WITH TECH        |
|          1 | HARDWARE       | DEAL WITH HARDWARE    |
|          1 | DEVELOPMENT    | DEAL WITH DEV TECH    |
|          1 | MARKETING      | DEALS WITH PROMOTIONS |
|          1 | ANALYTICS      | DEALS WITH STATS      |
|          1 | CONTENT        | DEALS WITH CONTENT    |
|          1 | SALES          | DEALS WITH SALES      |
+------------+----------------+-----------------------+
10 rows in set (0.00 sec)

mysql>
```

```
mysql> select sum(depid), ename,posid,eid from employee;
+------------+---------+-------+------+
| sum(depid) | ename   | posid | eid  |
+------------+---------+-------+------+
|         34 | PRANJAY |     2 |    1 |
+------------+---------+-------+------+
1 row in set (0.00 sec)

mysql> select sum(depid), ename,posid,eid from employee;
+------------+---------+-------+------+
| sum(depid) | ename   | posid | eid  |
+------------+---------+-------+------+
|         34 | PRANJAY |     2 |    1 |
+------------+---------+-------+------+
1 row in set (0.00 sec)

mysql>
mysql> select pid,pname,posting from pos where posting = "chennai";
+-----+---------+---------+
| pid | pname   | posting |
+-----+---------+---------+
|   1 | MANAGER | CHENNAI |
+-----+---------+---------+
1 row in set (0.00 sec)

mysql> select email from employee where email like "%s%";
+----------------+
| email          |
+----------------+
| SP@GMAIL.COM   |
| NS@GMAIL.COM   |
| SB12@GMAIL.COM |
| sat@gmail.com  |
| sdt@gmail.com  |
| sat@gmail.com  |
+----------------+
6 rows in set (0.00 sec)
```

```
mysql> select p.pid,p.pname,p.posting,e.ename,e.email from pos p join employee e on p.pid = e.posid;
+-----+---------------+----------+-------------+-------------------------+
| pid | pname         | posting  | ename       | email                   |
+-----+---------------+----------+-------------+-------------------------+
|   2 | DIRECTOR      | MUMBAI   | PRANJAY     | PRANJAYPODDAR@GMAIL.COM |
|   3 | MANAGER       | DELHI    | SHREYANSH   | SP@GMAIL.COM            |
|   1 | MANAGER       | CHENNAI  | NISHANT     | NS@GMAIL.COM            |
|   4 | SR. DEVELOPER | AGRA     | SUBHO       | SB12@GMAIL.COM          |
|   2 | DIRECTOR      | MUMBAI   | ANKITA      | AK125@GMAIL.COM         |
|   2 | DIRECTOR      | MUMBAI   | ankittiwari | ak76@gamil.com          |
|   6 | TECH LEAD     | JABALPUR | rohan       | rohan@gmail.com         |
|   6 | TECH LEAD     | JABALPUR | sathwik     | sat@gmail.com           |
|   2 | DIRECTOR      | MUMBAI   | akash       | sdt@gmail.com           |
|   1 | MANAGER       | CHENNAI  | aman        | sat@gmail.com           |
+-----+---------------+----------+-------------+-------------------------+
10 rows in set (0.00 sec)

mysql> select p.pid,p.pname,p.posting,e.ename,e.email from pos p join employee e on p.pid = e.posid where p.pid >2 group by e.ename;
+-----+---------------+----------+-----------+-----------------+
| pid | pname         | posting  | ename     | email           |
+-----+---------------+----------+-----------+-----------------+
|   3 | MANAGER       | DELHI    | SHREYANSH | SP@GMAIL.COM    |
|   4 | SR. DEVELOPER | AGRA     | SUBHO     | SB12@GMAIL.COM  |
|   6 | TECH LEAD     | JABALPUR | rohan     | rohan@gmail.com |
|   6 | TECH LEAD     | JABALPUR | sathwik   | sat@gmail.com   |
+-----+---------------+----------+-----------+-----------------+
4 rows in set (0.00 sec)

mysql> select p.pid,p.pname,p.posting,e.ename,e.email from pos p join employee e on p.pid = e.posid where p.pid >=1 group by p.pname;
+-----+---------------+----------+-----------+-------------------------+
| pid | pname         | posting  | ename     | email                   |
+-----+---------------+----------+-----------+-------------------------+
|   2 | DIRECTOR      | MUMBAI   | PRANJAY   | PRANJAYPODDAR@GMAIL.COM |
|   3 | MANAGER       | DELHI    | SHREYANSH | SP@GMAIL.COM            |
|   4 | SR. DEVELOPER | AGRA     | SUBHO     | SB12@GMAIL.COM          |
|   6 | TECH LEAD     | JABALPUR | rohan     | rohan@gmail.com         |
+-----+---------------+----------+-----------+-------------------------+
4 rows in set (0.00 sec)
```

```
mysql> select d.did,d.depname,d.dsc,e.ename,e.email from department d join employee e on d.did = e.depid group by d.depname;
+-----+----------------+--------------------+-----------+-------------------------+
| did | depname        | dsc                | ename     | email                   |
+-----+----------------+--------------------+-----------+-------------------------+
|   1 | FINANCE        | DEAL WITH FINANCE  | PRANJAY   | PRANJAYPODDAR@GMAIL.COM |
|   2 | GRAPHICS       | DEAL WITH GRAPHICS | SHREYANSH | SP@GMAIL.COM            |
|   4 | TECHNICAL      | DEAL WITH TECH     | NISHANT   | NS@GMAIL.COM            |
|   3 | HUMAN RESOURCE | DEAL WITH HR       | SUBHO     | SB12@GMAIL.COM          |
|   5 | HARDWARE       | DEAL WITH HARDWARE | ANKITA    | AK125@GMAIL.COM         |
+-----+----------------+--------------------+-----------+-------------------------+
5 rows in set (0.00 sec)

mysql> select p.pid,p.pname,p.posting,e.ename,e.email from pos p join employee e on p.pid = e.posid group by p.pname;
+-----+---------------+----------+-----------+-------------------------+
| pid | pname         | posting  | ename     | email                   |
+-----+---------------+----------+-----------+-------------------------+
|   2 | DIRECTOR      | MUMBAI   | PRANJAY   | PRANJAYPODDAR@GMAIL.COM |
|   3 | MANAGER       | DELHI    | SHREYANSH | SP@GMAIL.COM            |
|   4 | SR. DEVELOPER | AGRA     | SUBHO     | SB12@GMAIL.COM          |
|   6 | TECH LEAD     | JABALPUR | rohan     | rohan@gmail.com         |
+-----+---------------+----------+-----------+-------------------------+
4 rows in set (0.00 sec)

mysql>
```

RESULT: The effective database model of employee management system is successfully implemented using MYSQL database, Angular frontend and spring boot backend server.