```
/* CREATE TABLE Dept (
  Dept_id INT PRIMARY KEY AUTO_INCREMENT,
  Dept_name VARCHAR(50) NOT NULL,
  Dept_location VARCHAR(50)
);

create table Employee(Emp_id INT PRIMARY KEY auto_increment,
 Dept_id INT,
Emp_fname varchar(50), Emp_lname Varchar(50), Emp_position
Varchar(50),
Emp_salary Decimal(10,2) check (Emp_salary>0), Emp_JoinDate DATE,
foreign key(Dept_id) references Dept(Dept_id) on delete cascade);



CREATE TABLE Project (
  Proj_id INT PRIMARY KEY AUTO_INCREMENT,
  Dept_id INT,
  Proj_Name VARCHAR(50),
  Proj_Location VARCHAR(50),
  Proj_cost DECIMAL(10,2),
  Proj_year INT,
  FOREIGN KEY (Dept_id) REFERENCES Dept(Dept_id)
  ON DELETE CASCADE
);
```

```
insert into Dept(Dept_name, Dept_location) VALUES ('Computer',
'Pune'), ('IT','Mumbai'),('FInanace','Chennai'),('HR','Delhi'),
('Marketing','Pune')
```

```
INSERT INTO Project (Dept_id, Proj_Name, Proj_Location, Proj_cost, Proj_year) VALUES
(1, 'AI System', 'Pune', 250000, 2004),
(2, 'ERP Upgrade', 'Mumbai', 450000, 2005),
(3, 'Recruitment Portal', 'Delhi', 120000, 2007),
(1, 'Cloud Migration', 'Pune', 300000, 2005),
(4, 'Budget Tracker', 'Chennai', 90000, 2007);
```

```
INSERT INTO Employee (Dept_id, Emp_fname, Emp_lname, Emp_Position, Emp_salary,
Emp_JoinDate) VALUES
(1, 'Pranav', 'Shewale', 'Developer', 50000, '1984-06-12'),
(1, 'Harshad', 'Kavade', 'Tester', 45000, '1988-03-19'),
(2, 'Paras', 'Ghumanna', 'Manager', 70000, '1980-01-10'),
(3, 'Kunjal', 'Patil', 'HR Executive', 40000, '1995-07-23'),
(4, 'Atharva', 'Patil', 'Accountant', 55000, '1999-11-03'),
(1, 'Chaitanya', 'Pawar', 'Developer', 48000, '1983-04-22'),
(5, 'Vrushabh', 'Darekar', 'Sales Rep', 42000, '2002-05-14'),
(2, 'Aditya', 'Magdum', 'Engineer', 52000, '1984-02-11'),
(3, 'Ayush', 'Mahadik', 'Recruiter', 46000, '1989-09-09'),
(5, 'Shritej', 'Patil', 'Marketing Lead', 65000, '1992-12-30');
```

```
*/

-- CREATE VIEW SHOWINNG EMPLOYEES WITH THEIR DEPARTMENT NAMES

/*
create view emp_dept_view as
select e.Emp_id, e.Emp_fname, e.Emp_lname,e.Emp_position, e.Emp_salary, d.dept_name
from Employee e
join Dept d on e.dept_id = d.dept_id;
*/

-- select * from emp_dept_view;

-- create an index for faster search

-- create index ind_emp_lname on Employee(Emp_lname);

 -- (this is not supported but in general its created in this way)
 -- create sequence emp_seq start with 100 increment by 1;

 /*
 CREATE TABLE emp_seq (
  seq_value INT NOT NULL
);
```

```
INSERT INTO emp_seq VALUES (100);


-- When you need the next value:
UPDATE emp_seq SET seq_value = seq_value + 1;
SELECT seq_value FROM emp_seq;
 */


 -- create a synonym (MySQL doesn't have Oracle-style synonyms, but you
 -- you can use a view alias as a synonym)


 -- CREATE VIEW emp_alias AS SELECT * FROM Employee;


-- select * from emp_alias;


-- 1 Employees from Dept 'Computer' or 'IT' and
-- first name starts with 'p' or 'h'


/*
select e.*
from Employee e
join Dept d on e.Dept_id  = d.Dept_id
where ( d.Dept_name in('Computer','IT')) AND
(e.Emp_fname LIKE 'p%' OR e.Emp_fname LIKE 'h%');
*/


-- 2. Number of diff employee positions
```

```
/*
select count(distinct Emp_position) as
 number_of_positions from Employee;
 */

 -- 3. 10% salary increase for before 1985

 /*
 SET SQL_SAFE_UPDATES = 0;

 update Employee
 set Emp_salary = Emp_salary * 1.10
 where year(Emp_JoinDate) < 1985;

 select * from Employee;
 */

 -- 4. Delect Department in Mumbai

 /*
 delete from Dept where Dept_location = 'Mumbai';

 select * from Dept;
*/
```

```
-- 5. Projects located in Pune

-- select Proj_Name from Project where Proj_Location = 'Pune';

-- 6.projects cost between 100000 and 500000

-- select * from Project where Proj_cost between 100000 and 500000;



-- 7. Project with maximum price and average cost

/*
select Proj_Name , Proj_cost
from Project
where Proj_cost = (select max(Proj_cost) from Project);

select avg(Proj_cost) as avg_proj_cost from Project;
 */

 -- 8. All employees in descending order of last name
 /*
 select Emp_id, concat(Emp_fname, ' ', Emp_lname) as Emp_name
 from Employee
 order by Emp_lname DESC,Emp_fname DESC;
 */
```

```
-- 9. projects stared in 2004,2005,2007

/*

SELECT Proj_Name, Proj_Location, Proj_cost

FROM Project

WHERE Proj_year IN (2004, 2005, 2007);

*/
```