QUESTION 1

```
use activity3;

create table Employee
(
      EmployeeID int Primary key,
      EmployeeName VARCHAR(45)
);

create table Department
(
Department_ID INT primary key,
Department_Name VARCHAR(225),
EmployeeID INT
);

alter table department
add constraint  Foreign key (EmployeeID)
                      references Employee(EmployeeID);

create table Project
(
ProjectId INT primary key,
ProjectName VARCHAR(255),
Department_ID INT,
status ENUM('Active','Inactive')
);
alter table Project
add constraint FOREIGN KEY (Department_ID)
                      REFERENCES Department(Department_ID);
```

```
create table Assignment
(
Assignment_ID INT primary key,
assigning_date DATETIME,
Department_ID INT ,
constraint Foreign key (Department_ID)
            references Department(Department_ID),
Project_Id INT,
```

```
constraint Foreign key (Project_Id)
references project(ProjectId)
);
```

```
insert into employee
value(3,"Alice Johnson");
select * from employee;
```

Question Answer

Que1: Insert a new employee named "Alice Johnson" with an EmployeeID of 3. Write the SQL command to insert this new employee

```
insert into employee
value(3,"Alice Johnson");
select * from employee;
```

2. Insert a new assignment with Assignment_ID of 3, assigning date '2024-07-23', for the 'HR' department and the 'Project Alpha' project. Write the SQL command to insert this new assignment.

```
-- first we need to fill data in "department" and "project" table as
assignment table is taking refernce from it
insert into department
value(123,'HR',3);

insert into project
value(1003,'Project Alpha',123,'Active');


insert into assignment
value(3,'2024-07-23',
(select Department_ID from department where Department_Name='HR'),
(select ProjectId from project where ProjectName='Project Alpha') );

select * from assignment;
```

3. Add a new column Email of type VARCHAR(100) to the Employee table. Write the SQL command to alter the Employee table.

```
alter table employee
add column Email varchar(100);
```

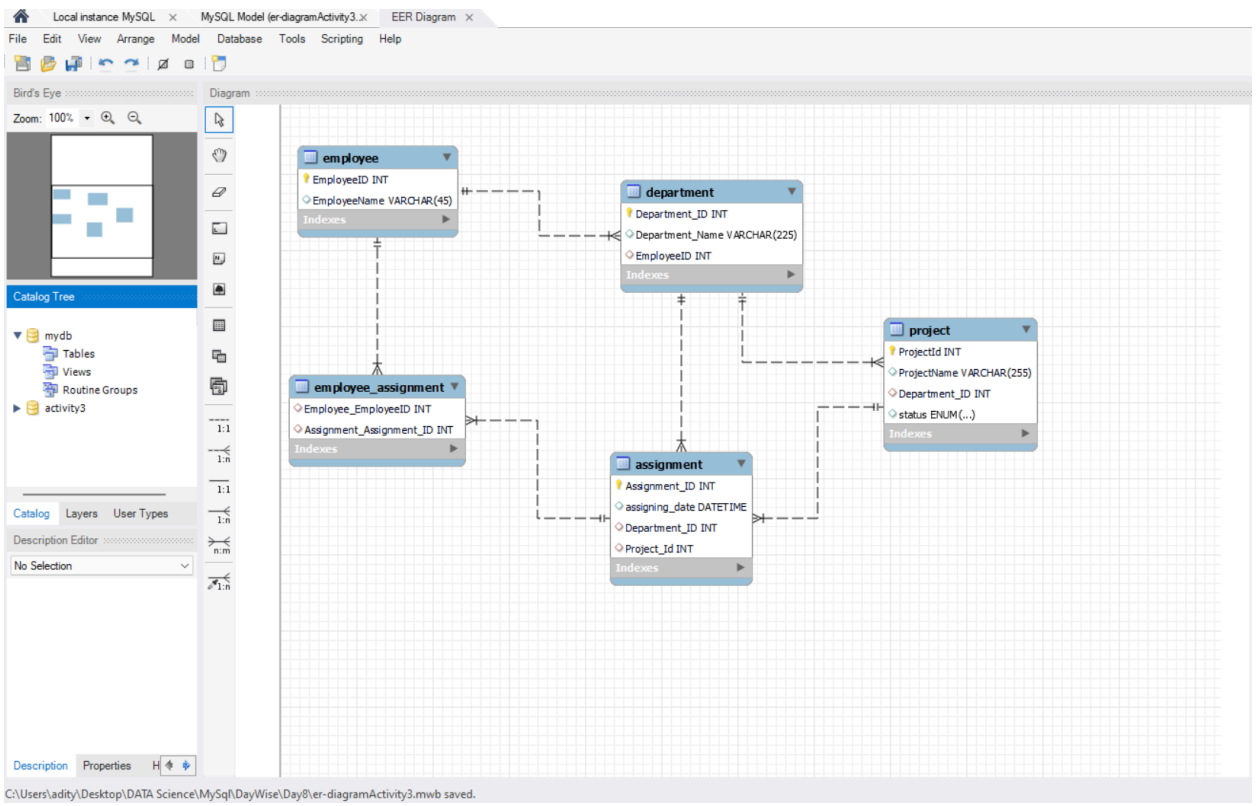
4. Change the data type of the Department_Name column in the Department table from VARCHAR(225) to VARCHAR(255). Write the SQL command to alter the Department table.

```
describe department;    -- varchar 225

alter table department
modify department_Name varchar(255);

describe department;    -- varchar 255
```

5. Increase the salary of all employees who work in the 'IT' department by 10%. Assume there is a salary column in the Employee table. Write the SQL command to perform this update.

```
select * from employee;
alter table employee
add column salary int;
-- ID    empl_name     email  salary
-- 3  Alice Johnson  null   null   (this data is already present)
-- after adding value we can do modification
SET sql_safe_updates = 0;
update employee
set salary=salary*1.1
where (select department_name from department where
department.EmployeeID=employee.EmployeeID)='IT';
```

ER diagram on next page


Local instance MySQL
MySQL Model (er-diagramActivity3.x
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Bird's Eye
Zoom: 100%
Catalog Tree
mydb
Tables
Views
Routine Groups
activity3
Catalog Layers User Types
Description Editor
No Selection
Description Properties
Diagram
employee
EmployeeID INT
EmployeeName VARCHAR(45)
Indexes
department
Department_ID INT
Department_Name VARCHAR(225)
EmployeeID INT
Indexes
project
ProjectId INT
ProjectName VARCHAR(255)
Department_ID INT
status ENUM(...)
Indexes
employee_assignment
Employee_EmployeeID INT
Assignment_Assignment_ID INT
Indexes
assignment
Assignment_ID INT
assigning_date DATETIME
Department_ID INT
Project_Id INT
Indexes
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