Lab No 04

Task:

1. Create a table EMPLOYEE with following schema: (Emp_no, E_name, E_address, E_ph_no, Dept_no, Dept_name, Job_id , Salary) Hint: Use the CREATE TABLE command and define suitable data types.

2. Add a new column; HIREDATE to the existing relation. Hint: Use ALTER TABLE with ADD option.

3. Change the datatype of JOB_ID from char to varchar2. Hint: Use ALTER TABLE with MODIFY option.

4. Change the name of column/field Emp_no to E_no. Hint: Use ALTER TABLE with RENAME COLUMN option.

5. Modify the column width of the job field of emp table Hint: Use ALTER TABLE with MODIFY option to adjust size.

Note: Source code for above Task must be attached in Lab Manual.

Important Note:

Perform above before next lab and Task perform in today's Lab will be considered as Lab assignment for Lab No 4.

Source Code for Lab assignment is given below. Prepare lab assignment thoroughly as viva will be conducted in coming lab and evaluation of viva will be considered as quiz no 1.

1. All SQL function languages like DDL, DML, DQL, DRL, DCL and TCL are used in that single code.
2. Also schema diagram is attached drawn by using Reverse engineering option.

```
create database lab5;
use lab5;
create table Departments( dept_id int auto_increment primary key, dept_name character(50) not null
unique);
create table students( student_id int auto_increment primary key, student_name character(50) not null,
email_id varchar(50) unique,
dept_id int, foreign key(dept_id) references Departments(dept_id) on delete set null on update cascade);
CREATE TABLE courses (
    course_id VARCHAR(10) PRIMARY KEY,
    title VARCHAR(100) NOT NULL,
    credit_hours INT CHECK (credit_hours BETWEEN 1 AND 4)
);
insert into Departments values (null,'Electrical'),(null,'computer science'),(null,'Civil');
insert into students values (null,'Ali','ali@email.com',1),(null,'Khan','khan@email.com',2);
insert into courses values ('cs01','Intro to ICT',3),('EE-02','Digital logic design',2);
select* from Departments;
select* from Departments,students,courses;
create table enrollments (student_id int , course_id varchar(50), primary key(student_id, course_id),  foreign
key (student_id) references students(student_id),
 foreign key(course_id) references courses(course_id));
 select* from enrollments;
 insert into enrollments values (1,'cs01');
 select* from enrollments;
 alter table enrollments add(semester varchar(20));
 update enrollments set semester='1st' where student_id=1 and course_id='cs01';
 select* from enrollments;
 use lab5;
 select* from enrollments;
 alter table enrollments modify semester varchar(30);
 create user 'Annas'@'localhost' identified by 'Pass123';
 grant select on lab5.* to 'Annas'@'localhost';
 show grants for 'Annas'@'localhost';
 use lab5;
 show grants for 'Annas'@'localhost';
 use lab5;
 update courses set title='Data Structure' where course_id='cs-01';
 select* from courses;
 update courses set title='Data Structure' where course_id='cs01';
 select* from courses;
show grants for 'Annas'@'localhost';
REVOKE SELECT ON `lab5`.* FROM 'Annas'@'localhost';
FLUSH PRIVILEGES;
show grants for 'Annas'@'localhost';
```