# ABD Lab Assignment 1: MySQL

**Clear screen of MySQL:**

\! clear

**Create Database:**

Create database ADS_Lab;

**Show all available databases in the current MySQL database server:**

show databases;

**Use or change current database to which you want to work:**

use ADS_Lab;

**Drop a database with a specified name permanently**

drop database ADS_Lab;

**Show all tables in a current database.**

Show tables;

**Create a new table:**

create table table_name (column1 datatype constraints,);

**Adding column to table:**

alter table table_name add column column_name datatype;

**Dropping column from table:**

alter table table_name drop column column_name;

**ADD Primary key to table:**

alter table table_name add primary key (column_name);

**DROP Primary key from table:**

alter table table_name drop primary key;

**Drop table from database:**

drop table table_name;

**Show columns of a table:**

show columns from table_name;

**MODIFY DATA IN TABLE**

**Insert new row into table:**

insert into students (firstname, lastname, marks) values (‘Nikhil', 'SG', 70);

**Insert multiple rows into a table:**

insert into students (firstname, lastname, marks) values ('Dishan', 'Alur', 55), ('Ashok', 'Boni', 60);

**Update all rows in a table:**

update students set marks = 0;

**Update data for a set of rows specified by a condition in WHERE clause:**

update students set marks = 80 where lastname = 'SG';

**Create Database with name Programs:**

create database Programs;

use Programs;

**Create following tables with specified attributes. If required, provide primary key**

**Student: Name, RegNumber, email, Phone,**

**Instructor: Name, EmpID, email, Designation, Phone**

**Course: Name, CourseID, ContactHours, InstID**

**Take: StudentID, CourseID, Grade**

create table Student (Name varchar(100), RegNumber varchar(20) primary key, email varchar(100), phone varchar(15));

create table Instructor (Name varchar(100), EmpID varchar(20) primary key, email varchar(100), designation varchar(50), phone varchar(15));

create table Course (Name varchar(100), Courseid varchar(20) primary key, ContactHours int, Instid varchar(20), foreign key (InstID) references instructor(EmpID));

create table Take (Studentid varchar(20), Courseid varchar(20), Grade varchar(2), primary key (Studentid, Courseid), foreign key (Studentid) references student(RegNumber), foreign key (Courseid) references course(Courseid));

**3) Populate data into all tables**

insert into Student(Name, RegNumber,email,phone) values ("Nikhil",01,"Nikhil@gmail.com",123),("Ashok",02,"ashok@gmail.com",456),("dishan",03,"dishan@gmail.com",789);

insert into Instructor(Name, EmpID,email,designation,phone) values("deepka sir",01,"deepka@gmail.com","ABD",98710),("Arockaraj",02,"arcokaraj@gmail.com","FML",956789),("sundarsan",03,"sundarsan@gmail.com","APS",78923);

insert into Course(Name, Courseid, ContactHours, Instid) values ("AIML",01,"9-12",7241),("BDA",02,"1-5",7241),("Cloud Computing",03,"10-1",7241);

insert into Take(Studentid, Courseid, Grade) values (01,01,"A"),(02,01,"B"),(03,02,"A");

**4) Create empty table NewCourse. Structure of this new table should be same as existing table “Course”.**

create table NewCourse (Name varchar(100), Courseid varchar(20) primary key, ContactHours int, Instid varchar(20), foreign key (InstID) references instructor(EmpID));

**5) Transfer data from table Course to table NewCourse**

insert into NewCourse (Name, Courseid, ContactHours, Instid) select Name, Courseid, ContactHours, InstID from Course;