1. create a database called 'assignment' (Note please do the assignment tasks in this database)

**Ans. CREATE DATABASE Assignment;**

2. Create the tables from assignment\_tables.sql and enter the records as specified in it.

**Ans. Question not clear**

3. Create a table called authors with the following columns

authorid , name

- choose appropriate datatypes for the columns

a) Insert the following data into the table

1, J K Rowling

2, Thomas Hardy

3, Oscar Wilde

4, Sidney Sheldon

5, Alistair Maclean

6, Jane Autsen

**Ans.** **create table Authors(**

**Author\_id INT,**

**Name VARCHAR (30));**

**INSERT INTO Authors VALUES (1, 'JK Rowling');**

**INSERT INTO Authors VALUES(2, 'Thomas Hardy');**

**INSERT INTO Authors VALUES(3, 'Oscar Wilde');**

**INSERT INTO Authors VALUES(4, 'Sidney Sheldon');**

**INSERT INTO Authors VALUES(5, 'Alistair Maclean');**

**INSERT INTO Authors VALUES(6, 'Jane Austen');**

b) Add a couple of authors of your choice

**Ans. INSERT INTO Authors VALUES(7, 'Ernest Hemingway');**

**INSERT INTO Authors VALUES(8, 'Mark Twain');**

**INSERT INTO Authors VALUES(9, 'Charles Dickens');**

**INSERT INTO Authors VALUES(10, 'William Shakespeare');**

c) Change 'Alistair Maclean' to 'Alastair McNeal'

**Ans. UPDATE Authors**

**SET Name = 'Alastair McNeal'**

**WHERE Name = 'Alistair Maclean' ;**

4. Create a table called Books with the following columns

bookid, title, authorid

- choose appropriate datatypes for the columns

a) Insert the following records

1,Harry Potter and the Philosopher's Stone,1

2,Harry Potter and the Chamber of Secrets,1

3,Harry Potter and the Half-Blood Prince,1

4,Harry Potter and the Goblet of Fire,1

5,Night Without End,5

6,Fear is the Key,5

7,Where Eagles Dare,5

8,Sense and Sensibility,6

9,Pride and Prejudice,6

10,Emma,6

11,Random Book,22

**Ans.**

**CREATE table Books(**

**bookid INT,**

**Title VARCHAR(70),**

**Authorid INT);**

**INSERT INTO Books VALUES(1,"Harry Potter and the Philosopher's Stone",1);**

**INSERT INTO Books VALUES(2,"Harry Potter and the Chamber of Secrets",1);**

**INSERT INTO Books VALUES(3,"Harry Potter and the HalfBlood Prince",1);**

**INSERT INTO Books VALUES(4,"Harry Potter and the Goblet of Fire",1);**

**INSERT INTO Books VALUES(5,"Night Without End",5);**

**INSERT INTO Books VALUES(6,"Fear is the Key",5);**

**INSERT INTO Books VALUES(7,"Where Eagles Dare",5);**

b) Delete 'Random Book' from the table.

**Ans. Delete FROM Books**

**Where bookid = 1;**

5. Rename the table Books to Favbooks and Authors to Favauthors.

**Ans. ALTER table Books RENAME TO Favbooks;**

**ALTER table Authors RENAME TO Favauthors;**

6. Create the following tables. Use auto increment wherever applicable

a. Products

product\_id - primary key

product\_name - cannot be null and only unique values are allowed

description

supplier\_id - foreign key of supplier table

b. Suppliers

supplier\_id - primary key

supplier\_name

location

c. Stock

id - primary key

product\_id - foreign key of product table

balance\_stock

**Ans. Create table Products(**

**product\_id INT PRIMARY KEY AUTO\_INCREMENT,**

**product\_name VARCHAR (30) NOT NULL UNIQUE ,**

**Description VARCHAR (70),**

**supplier\_id INT);**

**Create table Suppliers(**

**supplier\_id INT PRIMARY KEY AUTO\_INCREMENT,**

**supplier\_name VARCHAR(20),**

**location VARCHAR (20));**

**ALTER TABLE Products**

**ADD FOREIGN KEY(supplier\_id)**

**REFERENCES Suppliers (supplier\_id)**

**ON UPDATE CASCADE ON DELETE CASCADE;**

**Create table Stock(**

**stock\_id INT PRIMARY KEY AUTO\_INCREMENT,**

**product\_id INT,**

**balance\_stock INT,**

**Foreign key (product\_id) REFERENCES Products (product\_id) ON UPDATE CASCADE ON DELETE CASCADE);**

7. Enter some records into the three tables.

**Ans. INSERT INTO Products VALUES(1, "Chai", "Chai is good", 1);**

**INSERT INTO Products VALUES(2, "Tofu", "Tofu is good", 2);**

**INSERT INTO Suppliers VALUES(1, “Amazon”, “US”);**

**INSERT INTO Suppliers VALUES(2, “Ebay”, “UK”);**

**INSERT INTO Stock VALUES(1,1,79);**

**INSERT INTO Stock VALUES(2,2,97);**

8. Modify the supplier table to make supplier name unique and not null.

**Ans.** **ALTER TABLE suppliers MODIFY supplier\_name varchar(20) unique not null;**

9. Modify the emp table as follows

1. Add a column called deptno

**Ans. alter table emp add dept\_no INT;**

b. Set the value of deptno in the following order

deptno = 20 where emp\_no is divisible by 2

deptno = 30 where emp\_no is divisible by 3

deptno = 40 where emp\_nois divisible by 4

deptno = 50 where emp\_no is divisible by 5

deptno = 10 for the remaining records.

**Ans. Update emp**

**set dept\_no =20**

**where emp\_no%2=0;**

**Update emp**

**set dept\_no =30**

**where emp\_no %3=0;**

**Update emp**

**set dept\_no =40**

**where emp\_no%4=0;**

**Update emp**

**set dept\_no =50**

**where emp\_no%5=0;**

**Update emp**

**set dept\_no =10**

**where dept\_no IS NULL;**

10. Create a unique, hash index on the emp\_no column. /

**Ans.**

**CREATE UNIQUE INDEX hidx using hash ON emp(emp\_no);**