Assignment

Feb20/ DBT/002

Database Technologies

Diploma in Advance Computing

February 2020

**Task 1.**

1. Create ***COURSE*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| name | varchar(45) |
| duration | varchar(45) |
| summery | varchar(1024) |

mysql> create table COURSE(id int primary key, name varchar(45), duration varchar(45), summery varchar(1024));

mysql> desc COURSE;

+----------+---------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+---------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| name | varchar(45) | YES | | NULL | |

| duration | varchar(45) | YES | | NULL | |

| summery | varchar(1024) | YES | | NULL | |

+----------+---------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

1. Create ***STUDENT*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | Intprimary key |
| namefirst | varchar(45) |
| namelast | varchar(45) |
| DOB | date |
| emailID | varchar(128) |

mysql> create table STUDENT(id int primary key, namefirst varchar(45), namelast varchar(45), DOB date, emailID varchar(128));

Query OK, 0 rows affected (0.07 sec)

mysql> desc STUDENT;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| namefirst | varchar(45) | YES | | NULL | |

| namelast | varchar(45) | YES | | NULL | |

| DOB | date | YES | | NULL | |

| emailID | varchar(128) | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

5 rows in set (0.00 sec)

1. Create ***STUDENT\_PHONE*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| studentID | int foreign key(studentid) references student(id) |
| number | varchar(45) |
| isActive | bool |

mysql> create table STUDENT\_PHONE(id int primary key, studentID int, number varchar(45), isActive bool , constraint fk\_id foreign key(id) references STUDENT (id));

Query OK, 0 rows affected (0.09 sec)

mysql> desc STUDENT\_PHONE;

+-----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+-------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| studentID | int | YES | | NULL | |

| number | varchar(45) | YES | | NULL | |

| isActive | tinyint(1) | YES | | NULL | |

+-----------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

1. Create ***STUDENT\_ADDRESS*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| studentID | int uniquenotnullforeign key(studentid) references student(id) |
| address | varchar(128) |

mysql> create table STUDENT\_ADDRESS(id int primary key, studentID int unique key not null, address varchar(128), constraint fk\_sid foreign key(studentID) references STUDENT(id));

Query OK, 0 rows affected (0.14 sec)

mysql> desc STUDENT\_ADDRESS;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| studentID | int | NO | UNI | NULL | |

| address | varchar(128) | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

3 rows in set (0.01 sec)

1. Create ***FACULTY*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | Intprimary key |
| namefirst | varchar(45) |
| namelast | varchar(45) |
| DOB | date |
| emailID | varchar(128) |

create table FACULTY(id int primary key, namefirst varchar(45),namelast varchar (45),DOB date, emailID varchar(128));

Query OK, 0 rows affected (0.10 sec)

mysql> desc FACULTY;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| namefirst | varchar(45) | YES | | NULL | |

| namelast | varchar(45) | YES | | NULL | |

| DOB | date | YES | | NULL | |

| emailID | varchar(128) | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

5 rows in set (0.00

1. Create ***FACULTY\_PHONE*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| facultyID | int foreign key(facultyid) references faculty(id) |
| number | varchar(10) |

mysql> create table FACULTY\_PHONE(id int primary key, facultyid int, number varchar(10), constraint fk\_fid foreign key(facultyid) references faculty(id));

Query OK, 0 rows affected (0.12 sec)

mysql> desc FACULTY\_PHONE;

+-----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+-------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| facultyid | int | YES | MUL | NULL | |

| number | varchar(10) | YES | | NULL | |

+-----------+-------------+------+-----+---------+-------+

3 rows in set (0.01 sec)

1. Create ***FACULTY\_ADDRESS*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| facultyID | int uniquenotnullforeign key(facultyid) references faculty(id) |
| address | varchar(128) |

mysql> create table FACULTY\_ADDRESS(id int primary key,facultyID int unique key not null,address varchar(128),constraint fk\_aid foreign key(facultyID) references faculty(id));

Query OK, 0 rows affected (0.12 sec)

mysql> desc FACULTY\_ADDRESS;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| facultyID | int | NO | UNI | NULL | |

| address | varchar(128) | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

1. Create ***MODULES*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| name | varchar(128) |
| duration | int |

create table MODULES(id int primary key, name varchar(128),duration int);

Query OK, 0 rows affected (0.07 sec)

mysql> desc MODULES;

+----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| name | varchar(128) | YES | | NULL | |

| duration | int | YES | | NULL | |

+----------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

1. Create ***COURSE\_MODULES*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| courseID | int foreign key (courseid) references course(id) |
| moduleID | int foreign key (moduleid) references modules(id) |

mysql> create table COURSE\_MODULES(id int primary key, courseID int, moduleID int, constraint fk\_cid foreign key(courseID) references course(id), constraint fk\_mid foreign key(moduleID) references MODULES(id));

Query OK, 0 rows affected (0.16 sec)

mysql> desc COURSE\_MODULES;

+----------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| courseID | int | YES | MUL | NULL | |

| moduleID | int | YES | MUL | NULL | |

+----------+------+------+-----+---------+-------+

3 rows in set (0.01 sec)

1. Create ***STUDENT\_QUALIFICATIONS*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| studentID | int foreign key(studentid) references student(id) |
| name | varchar(128) |
| college | varchar(128) |
| university | varchar(128) |
| marks | varchar(45) |
| year | int |

mysql> create table STUDENT\_QUALIFICATIONS(id int primary key,studentID int, name varchar(128), college varchar(128), univery varchar(128),marks varchar(45),year int, constraint fk\_nid foreign key(studentid) references student(id));

Query OK, 0 rows affected (0.16 sec)

mysql> desc STUDENT\_QUALIFICATIONS;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| studentID | int | YES | MUL | NULL | |

| name | varchar(128) | YES | | NULL | |

| college | varchar(128) | YES | | NULL | |

| univery | varchar(128) | YES | | NULL | |

| marks | varchar(45) | YES | | NULL | |

| year | int | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

7 rows in set (0.01 sec)

1. Create ***FACULTY\_QUALIFICATIONS*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| facultyID | int foreign key (facultyid) references faculty(id) |
| name | varchar(128) |
| college | varchar(128) |
| university | varchar(128) |
| marks | varchar(45) |
| year | int |

mysql> create table FACULTY\_QUALIFICATIONS(id int primary key,facultyID int,name varchar(128),college varchar(128), university varchar(128), marks varchar(45), year int, foreign key(facultyid) references faculty(id));

Query OK, 0 rows affected (0.13 sec)

mysql> desc FACULTY\_QUALIFICATIONS;

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| facultyID | int | YES | MUL | NULL | |

| name | varchar(128) | YES | | NULL | |

| college | varchar(128) | YES | | NULL | |

| university | varchar(128) | YES | | NULL | |

| marks | varchar(45) | YES | | NULL | |

| year | int | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

7 rows in set (0.01 sec)

1. Create ***COURSE\_BATCHES*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| name | varchar(45) |
| courseID | int foreign key (courseid) references course (id) |
| starton | date |
| endson | date |
| capacity | int |

mysql> create table COURSE\_BATCHES(id int primary key,name varchar(45),courseID int,starton date,endson date,capacity int,foreign key (courseid) references course(id));

Query OK, 0 rows affected (0.62 sec)

mysql> desc COURSE\_BATCHES;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| name | varchar(45) | YES | | NULL | |

| courseID | int | YES | MUL | NULL | |

| starton | date | YES | | NULL | |

| endson | date | YES | | NULL | |

| capacity | int | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

6 rows in set (0.01 sec)

1. Create ***BATCH\_STUDENTS*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| batchID | int foreign key (batchid) references course\_batches (id) |
| studentID | int foreign key (studentid) references student (id) |

mysql> create table BATCH\_STUDENTS (id int primary key, batchID int,studentID int, foreign key (batchid) references course\_batches(id),foreign key (studentid) references student(id));

Query OK, 0 rows affected (0.13 sec)

mysql> desc BATCH\_STUDENTS;

+-----------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| batchID | int | YES | MUL | NULL | |

| studentID | int | YES | MUL | NULL | |

+-----------+------+------+-----+---------+-------+

3 rows in set (0.01 sec)

1. Create ***STUDENT\_CARDS*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| studentID | int foreign key(studentid) references student(id) |
| name | varchar(45) |
| isActive | bool |

mysql> create table STUDENT\_CARDS(id int primary key, studentID int, name varchar(45), isActive bool, foreign key (studentid) references student(id));

Query OK, 0 rows affected (0.12 sec)

mysql> desc STUDENT\_CARDS;

+-----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+-------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| studentID | int | YES | MUL | NULL | |

| name | varchar(45) | YES | | NULL | |

| isActive | tinyint(1) | YES | | NULL | |

+-----------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

1. Create ***STUDENT\_ORDER*** Relation with following columns using Workbench.

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| studentID | int foreign key(studentid) references student(id) |
| date | date |
| amount | int |

Mysql> create table STUDENT\_ORDER(id int primary key, studentID int, date date, amount int, foreign key (studentid) references student(id));

Query OK, 0 rows affected (0.10 sec)

mysql> desc STUDENT\_ORDER;

+-----------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| studentID | int | YES | MUL | NULL | |

| date | date | YES | | NULL | |

| amount | int | YES | | NULL | |

+-----------+------+------+-----+---------+-------+

4 rows in set (0.01 sec)