Assignment

March/ DBT/002

Database Technologies

Diploma in Advance Computing

March 2023

**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) |

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

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

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 |

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

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| studentID | int unique not null foreign key(studentid) references student(id) |
| address | varchar(128) |

🡪alter table student\_address

🡪ADD FOREIGN KEY (studentID) REFERENCES student(ID);

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

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | Int primary 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));

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) |

* create table faculty\_phone (ID int primary key, facultyID int, number varchar(10));
* alter table faculty\_phone
* ADD FOREIGN KEY (facultyID) REFERENCES faculty(ID);

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

|  |  |
| --- | --- |
| Field Name | Datatype (size) |
| ID | int primary key |
| facultyID | int unique not null foreign key(facultyid) references faculty(id) |
| address | varchar(128) |

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Create table faculty\_address (ID int primary key, facultyID int, address varchar(128), foreign key(facultyID) references faculty(ID));

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);

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) |

* Create table course\_modules (ID int primary key, courseID int, moduleId int, foreign key(courseID) references course(ID), foreign key(moduleId) references modules(ID));

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 |

* Create table student\_qualifications (ID int primary key, studentID int , name varchar(128) , college varchar(128), university varchar(128), marks varchar(45), year int, foreign key(studentID) references student(ID));

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 |

* 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));

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 |

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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));

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) |

* 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));

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 |

Create table ***STUDENT\_CARDS*** (ID int primary key, studentID int, name varchar(45), isActive bool, foreign key(studentID) references student(ID));

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 |

Create table ***STUDENT\_ORDER*** (ID int primary key, studentID int, date date, amount int , foreign key(studentID) references student(ID));

**Task 2.**

1. Insert the records in ***COURSE, STUDENT***, ***FACULTY, STUDENT\_PHONE, STUDENT\_ADDRESS, FACULTY, FACULTY\_PHONE, FACULTY\_ADDRESS, MODULES, COURSE\_MODULES, STUDENT\_QUALIFICATIONS, FACULTY\_QUALIFICATIONS, COURSE\_BATCHES, BATCH\_STUDENTS, STUDENT\_CARDS, and STUDENT\_ORDER***  relation. Get the data from “Data for Assignment002 (Create Campus \_with\_constraintsTable)” Sheet1 file which will be provided to you.