**Consider the following database schema of a university Library that loans books to students:**

Student (SID, SName, SMobile, Collage, Section, Level, SAddress, Email)

Loan (SID, ISBN, LDate, Lduration, Returned)

Book (ISBN, BName, Topic, Avalible\_copy, BType, ASSN)

Author (SSN, AName, AAddress)

1. **Open Microsoft Access program**
2. **Create new query**
3. **Change the view to SQL**
4. **Write SQL statements to do the following – if there is any problem list and explain it - :**
5. **Create the previous 4 relations – complete the statement then run SQL–**

1-

CREATE TABLE ………………. (

SSN integer,

AName ………………(30),

AAddress …………………(30) ,

PRIMARY KEY( …………………….. ));

2-

CREATE TABLE Book (

ISBN varchar (20) ,

BName varchar(30) Not NULL,

………… ……………………(…….),

Avalible\_copy int,

BType varchar(10) ,

ASSN integer,

PRIMARY KEY(……………),

FOREIGN KEY (ASSN) REFERENCES …………… (……….) );

3-

CREATE TABLE Student(

SID integer NOT NULL,

……………… varchar(30) NOT NULL ,

…………….. varchar(10) NOT NULL,

………………… varchar(30) NOT NULL,

…………… varchar (5) NOT NULL,

…………… integer ,

SAddress varchar(30) ,

Email varchar(30),

……………………… …………………. );

4-

CREATE TABLE Loan (

SID integer,

ISBN varchar(20),

…………… DATE,

Lduration SMALLINT ,

PRIMARY KEY(………… ,…………. , ………. ),

FOREIGN KEY (SID) REFERENCES Student ,

FOREIGN KEY (ISBN) REFERENCES Book );

1. Insert these data into author table – SQL - ?

|  |  |  |
| --- | --- | --- |
| **Ssn** | **Aname** | **aaddress** |
| 1 | Abdullah Aljumaa | Riyadh |
| 2 | khalid almuneef | Riyadh |
| 3 | Najeeb alzamel | Dammam |

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1. Insert these data into **book** table ?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ISBN** | **Bname** | **Type** | **Available\_copy** | **Btype** | **ASSN** |
| 1123 | موعد مع الحياة |  | 5 | book | 2 |
| 1345 | عظماء بلا مدارس |  | 8 | book | 2 |
| 1567 | How to programming |  | 10 | book | 5 |

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1. Change the Author ssn to 1 for the book 1245 ?

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1. Decrease the avalible\_copy for the book 1123 by 1 ?

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1. list all details for the authors who live in Riyadh orderd by the their names from Z to A ?

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1. Delete the author who live in Dammam ?

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