

Table Statements

CREATE TABLE USER

(Username VARCHAR(15) **NOT NULL**,
Password VARCHAR(20) **NOT NULL**,
PRIMARY KEY (Username));

CREATE TABLE STAFF

(Username VARCHAR(15) **NOT NULL**,
PRIMARY KEY (Username),
FOREIGN KEY (Username) **REFERENCES** User(Username)
ON DELETE CASCADE **ON UPDATE** CASCADE);

CREATE TABLE STUDENT_FACULTY

(Username VARCHAR(15) **NOT NULL**,
Name VARCHAR(30) **NOT NULL**,
DOB DATE **NOT NULL**,
Email VARCHAR(30) **NOT NULL**,
IsDebarred BOOLEAN **NOT NULL**,
Gender CHAR **NOT NULL**,
Address VARCHAR(30),
IsFaculty BOOLEAN **NOT NULL**,
Penalty DECIMAL(5, 2) **NOT NULL**,
Dept VARCHAR(30),
PRIMARY KEY (Username),
FOREIGN KEY (Username) **REFERENCES** User(Username)
ON DELETE CASCADE **ON UPDATE** CASCADE);

CREATE TABLE BOOK

(ISBN CHAR(9) **NOT NULL**,
Title VARCHAR(30) **NOT NULL**,
Cost DECIMAL(5, 2) **NOT NULL**,
IsReserved BOOLEAN **NOT NULL**,
Edition INT **NOT NULL**,
PubliPlace VARCHAR(15) **NOT NULL**,
Publisher VARCHAR(15) **NOT NULL**,
CopyYr DECIMAL(4, 0) **NOT NULL**,
ShelfID INT,
SubName VARCHAR(30),
PRIMARY KEY (ISBN),
FOREIGN KEY (ShelfID) **REFERENCES** SHELF(ShelfID)
ON DELETE SET NULL **ON UPDATE** CASCADE,
FOREIGN KEY (SubName) **REFERENCES** SUBJECT(SubName)
ON DELETE SET NULL **ON UPDATE** CASCADE);

CREATE TABLE BOOKCOPY

(ISBN CHAR(9) **NOT NULL**,
CopyID INT **NOT NULL**,
IsChecked BOOLEAN **NOT NULL**,
IsHold BOOLEAN **NOT NULL**,
IsDamaged BOOLEAN **NOT NULL**,
FuRequester VARCHAR(15),
PRIMARY KEY (ISBN, CopyID),
FOREIGN KEY (ISBN) **REFERENCES** BOOK(ISBN)
ON DELETE CASCADE **ON UPDATE** CASCADE);

CREATE TABLE AUTHOR

(ISBN CHAR(9) **NOT NULL**,

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Author VARCHAR(15) NOT NULL,  
PRIMARY KEY (ISBN, Author),  
FOREIGN KEY (ISBN) REFERENCES BOOK(ISBN)  
ON DELETE CASCADE ON UPDATE CASCADE);
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CREATE TABLE ISSUE  
( Username VARCHAR(15) NOT NULL,  
ISBN CHAR(9) NOT NULL,  
CopyID INT NOT NULL,  
IssueID CHAR(9) UNIQUE,  
ExtenDate DATE NOT NULL,  
IssueDate DATE NOT NULL,  
ReturnDate DATE NOT NULL CHECK (ReturnDate >= ExtenDate),  
NumExten INT NOT NULL CHECK (NumExten <= 5),  
PRIMARY KEY (Username, (ISBN, CopyID) ),  
FOREIGN KEY (Username) REFERENCES STUDENT_FACULTY(Username)  
ON DELETE CASCADE ON UPDATE CASCADE,  
FOREIGN KEY (ISBN) REFERENCES BOOKCOPY(ISBN)  
ON DELETE CASCADE ON UPDATE CASCADE,  
FOREIGN KEY (CopyID) REFERENCES BOOKCOPY(CopyID)  
ON DELETE CASCADE ON UPDATE CASCADE);
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CREATE TABLE FLOOR  
( FloorID INT NOT NULL,  
NumAssistant INT NOT NULL,  
NumCopier INT NOT NULL,  
PRIMARY KEY (FloorID) );
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CREATE TABLE SHELF  
( ShelfID INT NOT NULL,  
FloorID INT,  
AisleID INT NOT NULL,  
PRIMARY KEY (ShelfID),  
FOREIGN KEY (FloorID) REFERENCES FLOOR(FloorID)  
ON DELETE SET NULL ON UPDATE CASCADE);
```

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CREATE TABLE SUBJECT  
( SubName VARCHAR(30) NOT NULL,  
FloorID INT,  
NumJournal INT NOT NULL,  
PRIMARY KEY (SubName),  
FOREIGN KEY (FloorID) REFERENCES FLOOR(FloorID)  
ON DELETE SET NULL ON UPDATE CASCADE);
```

```
CREATE TABLE KEYWORD  
( SName VARCHAR(30) NOT NULL,  
Keyword VARCHAR(15) NOT NULL,  
PRIMARY KEY (SName, Keyword),  
FOREIGN KEY (SName) REFERENCES SUBJECT(SubName)  
ON DELETE CASCADE ON UPDATE CASCADE);
```