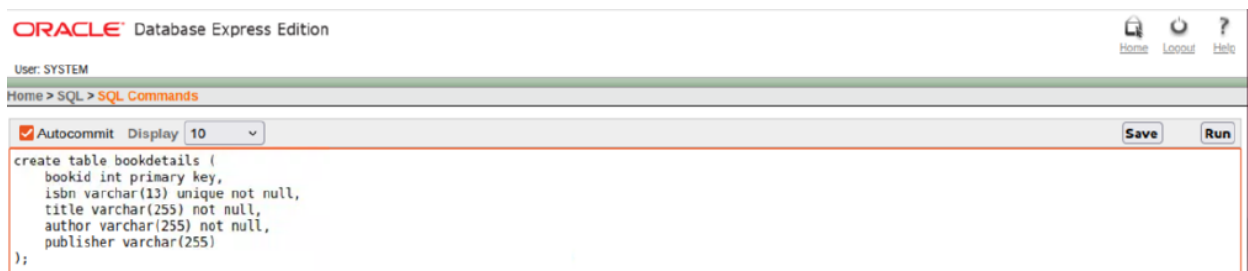


Assignment-2

Design a database schema for a library system, including tables, fields, and constraints like NOT NULL, UNIQUE, and CHECK. Include primary and foreign keys to establish relationships between tables.

```
create table bookdetails (
bookid int primary key,
isbn varchar(13) unique not null,
title varchar(255) not null,
author varchar(255) not null,
publisher varchar(255),
);
```



Object Type	TABLE	Object	BOOKDETAILS							
	Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comments
	<u>BOOKDETAILS</u>	<u>BOOKID</u>	Number	-	-	0	1	-	-	-
		<u>ISBN</u>	Varchar2	13	-	-	-	-	-	-
		<u>TITLE</u>	Varchar2	255	-	-	-	-	-	-
		<u>AUTHOR</u>	Varchar2	255	-	-	-	-	-	-
		<u>PUBLISHER</u>	Varchar2	255	-	-	-	✓	-	-
1 - 5										

```
create table student (  
  studentid int primary key,  
  firstname varchar(255) not null,  
  lastname varchar(255) not null,  
  email varchar(255) unique not null,  
  phonenumber varchar(15) unique,  
  enrollmentdate date not null,  
  status varchar(50) not null check (status in ('active', 'inactive'))  
);
```

```
User: SYSTEM
home > SQL > SQL Commands
[ ] Autocommit Display 10 v
);

create table student (
    studentid int primary key,
    firstname varchar(255) not null,
    lastname varchar(255) not null,
    email varchar(255) unique not null,
    phonenumber varchar(15) unique,
    enrollmentdate date not null,
    status varchar(50) not null check (status in ('active', 'inactive'))
);
```

Results	Explain	Describe	Saved SQL	History
-------------------------	-------------------------	--------------------------	---------------------------	-------------------------

Object Type	TABLE	Object	STUDENT
-------------	-------	--------	---------

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENT	STUDENTID	Number	-	-	0	1	-	-	-
	FIRSTNAME	Varchar2	255	-	-	-	-	-	-
	LASTNAME	Varchar2	255	-	-	-	-	-	-
	EMAIL	Varchar2	255	-	-	-	-	-	-
	PHONENUMBER	Varchar2	15	-	-	-	✓	-	-
	ENROLLMENTDATE	Date	7	-	-	-	-	-	-
	STATUS	Varchar2	50	-	-	-	-	-	-

```
User: SYSTEM
Home > SQL > SQL Commands

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create table issue (
    issueid int primary key,
    bookid int not null,
    studentid int not null,
    issuedate date not null,
    duedate date not null,
    returndate date,
    foreign key (bookid) references bookdetails(bookid),
    foreign key (studentid) references student(studentid),
    check (duedate > issuedate),
    check (returndate is null or returndate >= issuedate)
);
desc issue;
```

☒ Autocommit Display 10 ▼

```
create table return (  
    returnid int primary key,  
    issueid int not null,  
    returndate date not null,  
    condition varchar(50) not null check (condition in ('good', 'damaged', 'lost')),  
    fineamount decimal(10, 2) default 0 check (fineamount >= 0),  
    foreign key (issueid) references issue(issueid)  
);  
  
desc return;
```

Object Type	TABLE	Object	RETURN							
	Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
	<u>RETURN</u>	<u>RETURNID</u>	Number	-	-	0	1	-	-	-
		<u>ISSUEID</u>	Number	-	-	0	-	-	-	-
		<u>RETURNDATE</u>	Date	7	-	-	-	-	-	-
		<u>CONDITION</u>	Varchar2	50	-	-	-	-	-	-
		<u>FINEAMOUNT</u>	Number	-	10	2	-	✓	0	-
1 - 5										