Day 1

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Task 1 :

1.Create book as table with columns BookID , BookName , AuthorName , ISBN

2.BookID should be primary key

3. Alter type from NVARCHAR(100) to NVARCHAR(50)

4.Alter type from NVArCHAR(100) to NVARCHAR (150

Solution :

Step 1 : Create Book Table in that make `BookID` to Primary Key:

```
CREATE TABLE Book (
    BookID INT PRIMARY KEY, --set as primary
    BookName NVARCHAR(100),
    AuthorName NVARCHAR(100),
    ISBN NVARCHAR(100)
);
```

Step 2: Insert Some Sample values

```
-- Sample data for the Book table
INSERT INTO Book VALUES (1, 'Romeo and Juliet', 'William Shakespeare', 'R121');
Insert into Book values(2,'You can','jack','R131');
INSERT INTO Book VALUES (3, 'To Kill a Mockingbird', 'Harper Lee', 'TKM123');
INSERT INTO Book VALUES (4, 'Pride and Prejudice', 'Jane Austen', 'PP456');
INSERT INTO Book VALUES (5, 'The Great Gatsby', 'F. Scott Fitzgerald', 'GG789');
```

The values in table look like

	BookID	BookName	AuthorName	ISBN
1	1	Romeo Juliet	William Shaksphere	R121
2	2	Can We	jack	R131
3	3	To Kill a Mockingbird	Harper Lee	TKM123
4	4	Pride and Prejudice	Jane Austen	PP456
5	5	The Great Gatsby	F. Scott Fitzgerald	GG789

Step 3 : Alter type from NVARCHAR(100) to NVARCHAR(50)

```
Alter table book alter column bookname Nvarchar(50)
```

Step 4 : Alter type from NVArCHAR(100) to NVARCHAR (150)

```
Alter table book alter column AuthorName nvarchar(150);
```

Task 2:

1)Create Books Table with Bookid , book name

2)Authors table with author id , author name

3)Create a junction table for books and authors

Step 1: Create Books Table:

```
CREATE TABLE Books (
    BookID INT PRIMARY KEY,
    BookName NVARCHAR(100)
);
```

Step 2 : Insert Some sample data

```
Insert into Books values(1,'Sample1');
Insert into Books values(2,'Sample2');
```

The Value in table look like

	BookID	BookName
1	1	Sample1
2	2	Sample2

Step 3: Create Authors Table:

```
CREATE TABLE Authors (
    AuthorID INT PRIMARY KEY,
    AuthorName NVARCHAR(100)
);
```

Step 4: Insert some sample data

```
Insert into Authors values(1,'Author1'),(2,'Author2');
```

The Value in table look like

	AuthorID	AuthorName
1	1	Author1
2	2	Author2

Step 5 : Create Junction Table for Books and Authors:

```
CREATE TABLE BookAuthors (
    BookID INT,
    AuthorID INT,
    PRIMARY KEY (BookID, AuthorID),
    FOREIGN KEY (BookID) REFERENCES Books(BookID),
    FOREIGN KEY (AuthorID) REFERENCES Authors(AuthorID)
);
```

Step 6: Insert Some data

```
insert into BookAuthors values((select BookID from Books where BookName='Sample1'),
(select AuthorId from Authors where AuthorName='Author2'));
```

The data in table look like

	BookID	AuthorID
1	1	2

Step 7: Make Database Diagram(This is how the junction look like):