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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:

1.The below query is used to create table book with columns BookID as primary key , BookName,AuthorName,ISBN

```
CREATE TABLE Book (
    BookID INT PRIMARY KEY,
    BookName NVARCHAR(100),
    AuthorName NVARCHAR(100),
    ISBN int
);
```

2.The below query is used to Alter type from NVARCHAR(100) to NVARCHAR(50) from the column BookName and Alter type from NVARCHAR(100) to NVARCHAR (150) from the column AuthorName.

```
ALTER TABLE Book
ALTER COLUMN BookName NVARCHAR(50);

ALTER TABLE Book
ALTER COLUMN AuthorName NVARCHAR(150);
```

3.Sample data is inserted into the book table using the insert query

```
INSERT INTO Book (BookID, BookName, AuthorName, ISBN) VALUES
(1, 'Effective Java', 'Joshua Bloch', 1111),
(2, 'Clean Code', 'Robert C. Martin', 2222),
(3, 'The Pragmatic Programmer', 'Andrew Hunt', 3333),
(4, 'Design Patterns', 'Erich Gamma', 4444),
(5, 'Refactoring', 'Martin Fowler', 5555);
```

4.The book table with sample data

	BookID	BookName	AuthorName	ISBN
1	1	Effective Java	Joshua Bloch	1111
2	2	Clean Code	Robert C. Martin	2222
3	3	The Pragmatic Programmer	Andrew Hunt	3333
4	4	Design Patterns	Erich Gamma	4444
5	5	Refactoring	Martin Fowler	5555

Task 2:

Create books Table with Bookid , book name Authors table with author id , author name Create a junction table for books and authors

Solution

1.The below query is used to create
Books table with BookID and BookName.
Authors table with AuthorID and AuthorName.
BookAuthors junction table linking BookID and AuthorID as a composite primary key with foreign keys referencing the Books and Authors tables.

```
CREATE TABLE Books (
    BookID INT PRIMARY KEY,
    BookName NVARCHAR(100)
);
CREATE TABLE Authors (
    AuthorID INT PRIMARY KEY,
    AuthorName NVARCHAR(100)
);
CREATE TABLE BookAuthors (
    BookID INT,
    AuthorID INT,
    PRIMARY KEY (BookID, AuthorID),
    FOREIGN KEY (BookID) REFERENCES Books(BookID),
    FOREIGN KEY (AuthorID) REFERENCES Authors(AuthorID)
);
```

2.Now we insert data using insert query into these tables and establish relationships between books and authors.

```
INSERT INTO Books (BookID, BookName) VALUES
(1, 'Book One'),
(2, 'Book Two'),
(3, 'Book Three'),
(4, 'Book Four'),
(5, 'Book Five');

INSERT INTO Authors (AuthorID, AuthorName) VALUES
(1, 'Author One'),
(2, 'Author Two'),
(3, 'Author Three'),
(4, 'Author Four'),
(5, 'Author Five');

INSERT INTO BookAuthors (BookID, AuthorID) VALUES
(1, 1),
(2, 2),
(3, 3),
(4, 4),
(5, 5);
```

3.The Books tables with sample data

	BookID	BookName
1	1	Book One
2	2	Book Two
3	3	Book Three
4	4	Book Four
5	5	Book Five

4.The authors tables with sample data

	AuthorID	AuthorName
1	1	Author One
2	2	Author Two
3	3	Author Thr...
4	4	Author Four
5	5	Author Five

5.The BookAuthors table with sample data

	BookID	AuthorID
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5

6.The database diagram to visualize the relationship between the tables