```
-------------------------------------------------------------------------------------------
---           RUN THIS SECTION TO CREATE TWO TABLES FOR THIS EXERCISE                 ----
-------------------------------------------------------------------------------------------

CREATE TABLE Author (
       AuthorID INT IDENTITY(1,1) NOT NULL,
       FirstName VARCHAR(30) NOT NULL,
       LastName VARCHAR(30) NOT NULL,
       BirthDate DATE NULL,
       CONSTRAINT [PK_Author] PRIMARY KEY CLUSTERED (AuthorID)
)


CREATE TABLE Book (
       BookID INT IDENTITY(1,1) NOT NULL,
       ISBN CHAR(13) NOT NULL,
       Title VARCHAR(250) NOT NULL,
       AuthorID INT NOT NULL,
       CONSTRAINT [PK_Book] PRIMARY KEY CLUSTERED (BookID)
)


ALTER TABLE [dbo].[Book]
WITH NOCHECK ADD  CONSTRAINT [FK_Book_Author] FOREIGN KEY([AuthorID])
REFERENCES [dbo].[Author] ([AuthorID])
GO

ALTER TABLE [dbo].[Book] CHECK CONSTRAINT [FK_Book_Author]
GO

-------------------------------------------------------------------------------------------
---               END OF SECTION TO RUN BEFORE DOING THIS EXERCISE                    ----
-------------------------------------------------------------------------------------------
```

Problems on next page!

1)
Write a stored procedure called uspInsertAuthor to insert into the Author table.
It should take in parameters for first name, last name and birth date.

2)
Write a stored procedure called uspInsertBook to insert into the Book table.
It should take in parameters for ISBN, title and author id.

3)
Use your stored procedure to insert an author

Use your stored procedure to insert a book

Display the author and book info together on one line

4)
Now create a stored procedure called uspUpdateAuthor to update all the author information for a given AuthorID

5)
Now create a stored procdedure called uspUpdateBook to update all the book information for a given BookID

6)
Now change your author information using your Update procedure

Now change your book information using your Update procedure

Display the author and book info together on one line again

7)
Now write a stored procedure called uspDeleteAuthor that deletes a record for a given AuthorID

8)
And finally, create a stored procedure called uspDeleteBook which deletes for a given BookID

9)
What happens if you try to use uspDeleteAuthor to remove the author assigned to your book?

Now use uspDeleteBook to remove the book. Why didn't that give you a Foreign Key Violation Error?

Can you now delete the Author?

Solutions below…….

```sql
---- Write a stored procedure called uspInsertAuthor to insert into the Author table.
---- It should take in parameters for first name, last name and birth date.

CREATE PROCEDURE uspInsertAuthor (@FirstName VARCHAR(30), @LASTNAME VARCHAR(30),
@BirthDate DATE = NULL)
AS
BEGIN
	/*
	CREATED:	KLN 11/14/2018
	PURPOSE:	To take in Author info and create a new row in Author table.
	*/

	INSERT INTO Author (FirstName, LastName, BirthDate)
	VALUES (@FirstName, @LASTNAME, @BirthDate)

END
GO


---- Write a stored procedure called uspInsertBook to insert into the Book table.
---- It should take in parameters for ISBN, title and author id.

CREATE PROCEDURE uspInsertBook (@ISBN CHAR(13), @Title VARCHAR(250), @AuthorID INT)
AS
BEGIN
	/*
	CREATED:	KLN 11/14/2018
	PURPOSE:	To take in Book info, including AuthorID FK, and insert into Book
table.
	*/

	INSERT INTO Book (ISBN, Title, AuthorID)
	VALUES (@ISBN, @Title, @AuthorID)

END
GO


---- Use your stored procedure to insert an author
uspInsertAuthor 'Stephen', 'King', '1/1/1945'

---- Use your stored procedure to insert a book
uspInsertBook '123-456-78990', 'Carrie', 1


---- Display the author and book info together on one line
SELECT *
FROM Book b
INNER JOIN Author a ON b.AuthorID = a.AuthorID
```

```
---- Now create a stored procedure called uspUpdateAuthor to update all the author
information for a given AuthorID

CREATE PROCEDURE uspUpdateAuthor (@AuthorID INT, @FirstName VARCHAR(30), @LASTNAME
VARCHAR(30), @BirthDate DATE = NULL)
AS
BEGIN
	/*
	CREATED:	KLN 11/14/2018
	PURPOSE:	To take in Author info and update an existing row by ID.
	*/

	UPDATE Author
	SET FirstName = @FirstName,
		LastName = @LASTNAME,
		BirthDate = @BirthDate
	WHERE AuthorID = @AuthorID


END
GO


---- Now create a stored procdedure called uspUpdateBook to update all the book
information for a given BookID

CREATE PROCEDURE uspUpdateBook (@BookID INT, @ISBN CHAR(13), @Title VARCHAR(250),
@AuthorID INT)
AS
BEGIN
	/*
	CREATED:	KLN 11/14/2018
	PURPOSE:	To take in Book info and update Book table by ID.
	*/

	UPDATE Book
	SET	ISBN = @ISBN,
		Title = @Title,
		AuthorID = @AuthorID
	WHERE BookID = @BookID

END
GO


---- Now change your author information using your Update procedure
uspUpdateAuthor 1, 'Mr. Stephen', 'King Jr.', '12/31/1958'

---- Now change your book information using your Update procedure
uspUpdateBook 1, '123-456-78910', 'IT', 1


---- Display the author and book info together on one line again
SELECT *
FROM Book b
INNER JOIN Author a ON b.AuthorID = a.AuthorID
```

```
---- Now write a stored procedure called uspDeleteAuthor that deletes a record for a
given AuthorID

CREATE PROCEDURE uspDeleteAuthor (@AuthorID INT)
AS
BEGIN
	/*
	CREATED:	KLN 11/14/2018
	PURPOSE:	To delete an Author record by ID.
	*/

	DELETE FROM Author
	WHERE AuthorID = @AuthorID

END
GO


---- And finally, create a stored procedure called uspDeleteBook which deletes for a
given BookID

CREATE PROCEDURE uspDeleteBook (@BookID INT)
AS
BEGIN
	/*
	CREATED:	KLN 11/14/2018
	PURPOSE:	To delete a Book record by ID.
	*/

	DELETE Book
	WHERE BookID = @BookID

END
GO


---- What happens if you try to use uspDeleteAuthor to remove the author assigned to your
book?
---- ANSWER:  Foreign Key violation

---- Now use uspDeleteBook to remove the book.  Why didn't that give you a Foreign Key
Violation Error?
---- ANSWER:  Because no other tables reference the Book table's Primary Key.


uspDeleteAuthor 1

uspDeleteBook 1


---- Can you now delete the Author?
---- ANSWER:  Yes
uspDeleteAuthor 1
```