Syracuse University

Project Final Report
Orange Publishing Corporation

IST 659 M003 Fall 2017

Rahul Jairaj, Bradley Choi
12-12-2017

Contents

PROJECT SUMMARY

The proposed project is in relation to a hypothetical publishing company – called Orange Publishing Corporation. We plan to digitize everything by making their data management paperless. By doing so, we intend to streamline all the processes involved in publication.

The firm is dedicated to bringing great works from all walks of life: humanities, businesses, social sciences, science, technology, medicine and fiction. The publishing company assists writers to publish their works in paper format. The company also has skilled editors who scope through raw manuscripts and help transform them into works of art and it also helps in bringing together writers and artists during the designing phase.

Based on the feedback received, we've decided to narrow the scope for the project to include the Editorial process, Artists (and their works), and the book - and remove the sections relating to distribution and sales. Hence, employees may be only Artists, Authors or Editors.

We assume that works of art are created by artists. An artwork can be a part of several designs. A design is linked to one book. For example, if "Mickey Mouse" is an artwork, it can be a part of design 1 and design 2, which may be linked to books 5 and 6 – both of which may be related to "Mickey Mouse".

We also have the matter of royalties, due to authors. This along with other relevant information would be addressed in the entity.

Finally, manuscripts, submitted by authors eventually end up being edited by editors and eventually get turned into books.

With the proposed system, we assume that all relevant parties can produce the relevant work on the agreed timetable. The currently, existing system is one in which everything is done by paper and this system will greatly improve their efficiency and expand the firms market reach. One can easily view all the details in relation to books, authors, artists or editors this way.

PROPOSED ENTITIES AND ERD

Employees		Employees - Author, Artist or Editor
EmployeeID	INTEGER	ID for Employee
FName	VARCHAR	First Name for Employee
LName	VARCHAR	Last Name of Employee
Email	VARCHAR	Email of Employee
StNumber	INTEGER	Street Number of Employee
StName	VARCHAR	Street Address of Employee
City	VARCHAR	City of Employee
State	VARCHAR	State of Employee
PostalCode	VARCHAR	Postal Code of Employee
PhoneNumber	VARCHAR	Phone Number of Employee
TypeDiscriminator	VARCHAR	Defines the type of Employee – Artist , Author, Editor

Manuscripts		Manuscript Submitted by Author
ManuscriptID	INTEGER	ID of Manuscript
ManuscriptName	VARCHAR	Name of Manuscript
DateSubmitted	DATE	Date Manuscript is submitted – Defaults to current date
AuthorID	INTEGER	ID of Author
EditorID	INTEGER	ID of Editor
DueDate	DATE	Date it is due
BookID	INTEGER	The book to which this Manuscript is linked.

Artworks		All the artworks appearing any book
ArtworkID	INTEGER	ID of the artwork
ArtworkName	VARCHAR	Name of the work
ArtistID	INTEGER	ID of Artist

Design		Collection of artworks
DesignID	INTEGER	ID of a design
DesignName	VARCHAR	Name of design
ArtworkID	INTEGER	ID of artworks

Books		Book details
BookID	INTEGER	ID of book
BookName	VARCHAR	Name of book
AuthorID	INTEGER	ID of author

DesignID	INTEGER	ID of design
EditorID	INTEGER	ID of editor

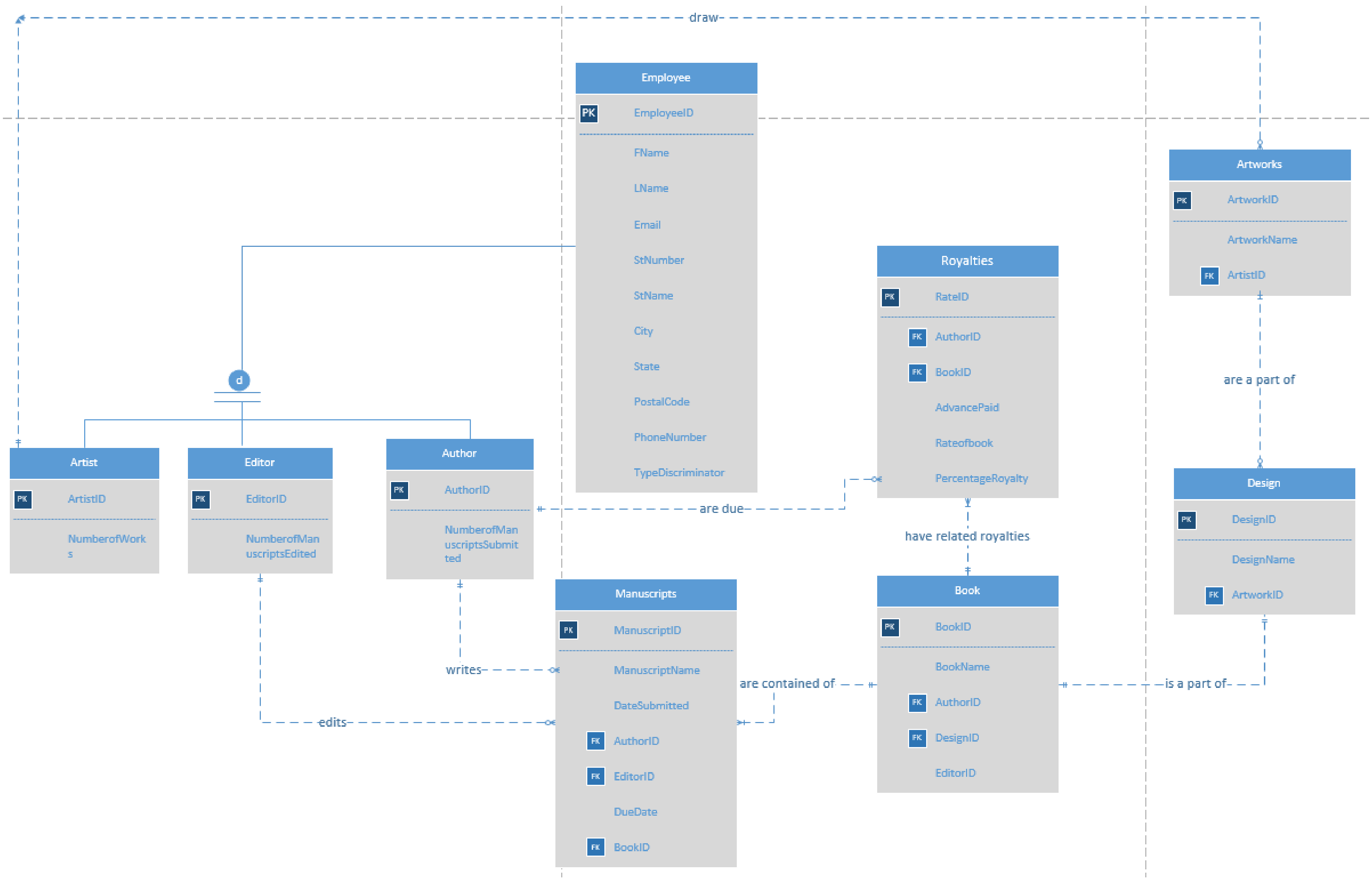
Royalties		Remuneration given to authors
RateID	INTEGER	ID of rates offered
AuthorID	VARCHAR	Author ID
BookID	INTEGER	Book ID
AdvancePaid	INTEGER	Advance Paid to author
Rateofbook	INTEGER	Rate of the book
PercentageRoyalty	INTEGER	Percentage of royalties

Artists		Details of Artists
ArtistID	INTEGER	ID of Artists
NumberofWorks	INTEGER	Total number of works the artist has – including outside of the publishing company.

Authors		Details of Authors
AuthorID	INTEGER	ID of Authors
NumberofManuscriptsWritten	INTEGER	Total number of books the author has – including outside of the publishing company.

Editor		Details of Editor
EditorID	INTEGER	ID of Editors
NumberofManuscriptsEdited	INTEGER	Total number of works the editor has edited as a sign of experience – including outside of the publishing company.

In addition to what has been discussed in the Implementation phase and the Final phase is that we've added Book ID to Manuscript Table and removed Manuscript ID from Books Table. We didn't need this in the first phase as we considered the scenario in which one author/editor edits one manuscript which will be linked to one book only, data wise. With this change, and subsequent changes in forms, we can handle scenarios in which there are different authors and editors editing different manuscripts linked to one book, which may or may not have one of the authors (or editors) who worked on one of the composite manuscripts. The ERD has been subsequently revised as well:


draw
Employee
PK EmployeeID
FName
LName
Email
StNumber
StName
City
State
PostalCode
PhoneNumber
TypeDiscriminator
d
Artist
PK ArtistID
NumberofWorks
Editor
PK EditorID
NumberofManuscriptsEdited
Author
PK AuthorID
NumberofManuscriptsSubmitted
are due
writes
edits
Manuscripts
PK ManuscriptID
ManuscriptName
DateSubmitted
FK AuthorID
FK EditorID
DueDate
FK BookID
are contained of
Royalties
PK RateID
FK AuthorID
FK BookID
AdvancePaid
Rateofbook
PercentageRoyalty
have related royalties
Book
PK BookID
BookName
FK AuthorID
FK DesignID
EditorID
is a part of
Artworks
PK ArtworkID
ArtworkName
FK ArtistID
are a part of
Design
PK DesignID
DesignName
FK ArtworkID

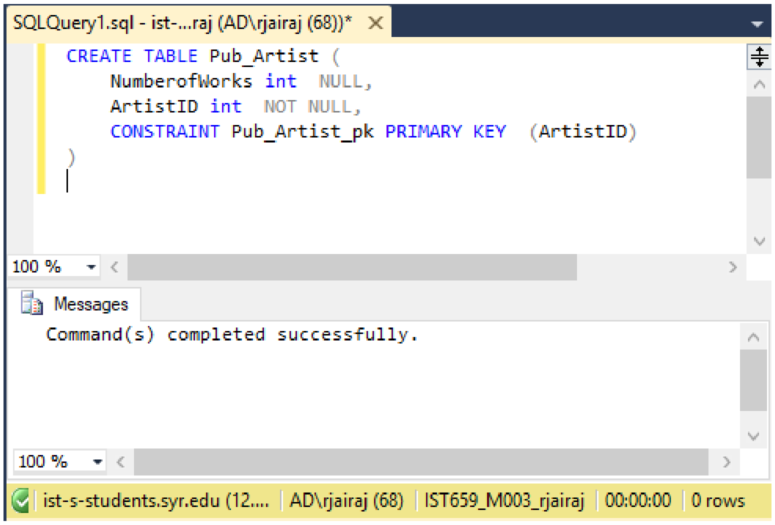
DATABASE SYSTEM INFRASTRUCTURE

We use the default infrastructure – a client – server model running SQL Server as the DB engine and we have used Access as the interface design tool for forms and reports.

CREATING TABLES AND INSERTING DATA

Creating Table: Pub_Artist

```
CREATE TABLE Pub_Artist (
    NumberofWorks int  NULL,
    ArtistID int  NOT NULL,
    CONSTRAINT Pub_Artist_pk PRIMARY KEY  (ArtistID)
);
```



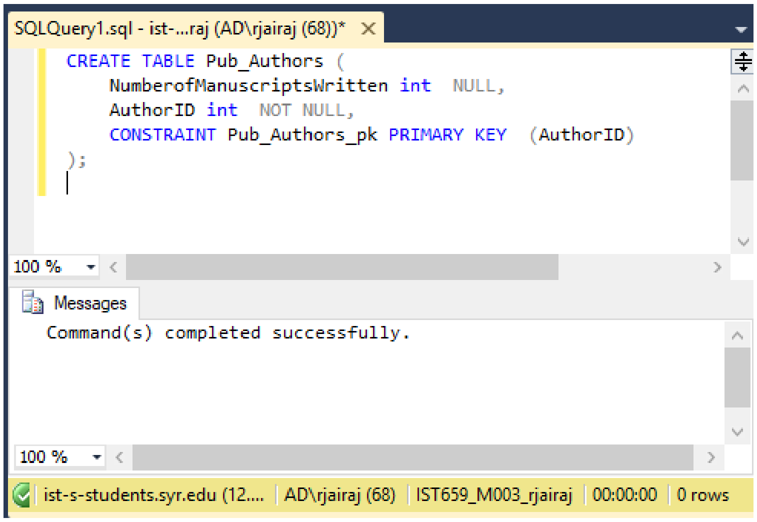
SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages
100 %
ist-s-students.syr.edu (12....
AD\rjairaj (68)
IST659_M003_rjairaj
00:00:00
0 rows

```
CREATE TABLE Pub_Artist (
    NumberofWorks int  NULL,
    ArtistID int  NOT NULL,
    CONSTRAINT Pub_Artist_pk PRIMARY KEY  (ArtistID)
)
```

```
Command(s) completed successfully.
```

Creating Table: Pub_Authors

```
CREATE TABLE Pub_Authors (
    NumberofManuscriptsWritten int  NULL,
    AuthorID int  NOT NULL,
    CONSTRAINT Pub_Authors_pk PRIMARY KEY  (AuthorID)
);
```

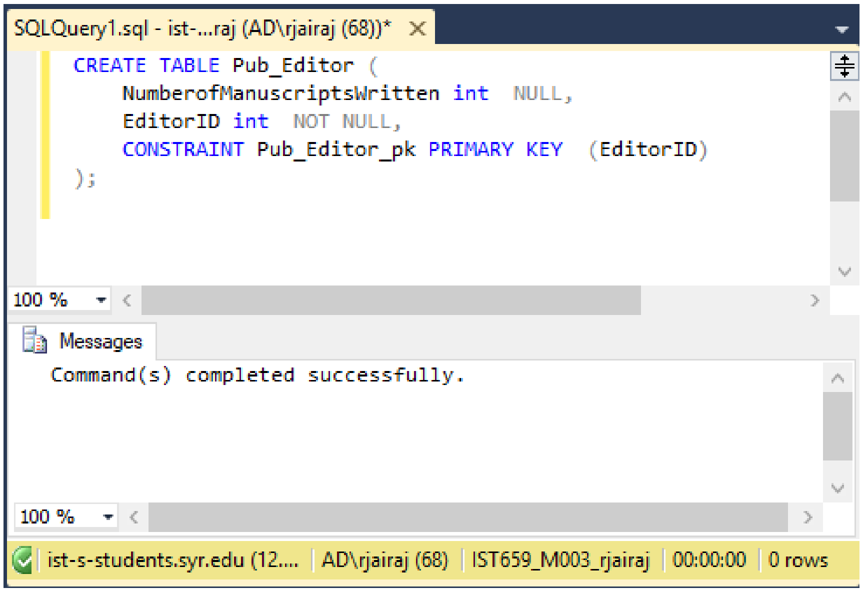

SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages
100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
CREATE TABLE Pub_Authors (
    NumberofManuscriptsWritten int  NULL,
    AuthorID int  NOT NULL,
    CONSTRAINT Pub_Authors_pk PRIMARY KEY  (AuthorID)
);
```

```
Command(s) completed successfully.
```

Creating Table: Pub_Editor

```
CREATE TABLE Pub_Editor (
    NumberofManuscriptsWritten int  NULL,
    EditorID int  NOT NULL,
    CONSTRAINT Pub_Editor_pk PRIMARY KEY  (EditorID)
);
```

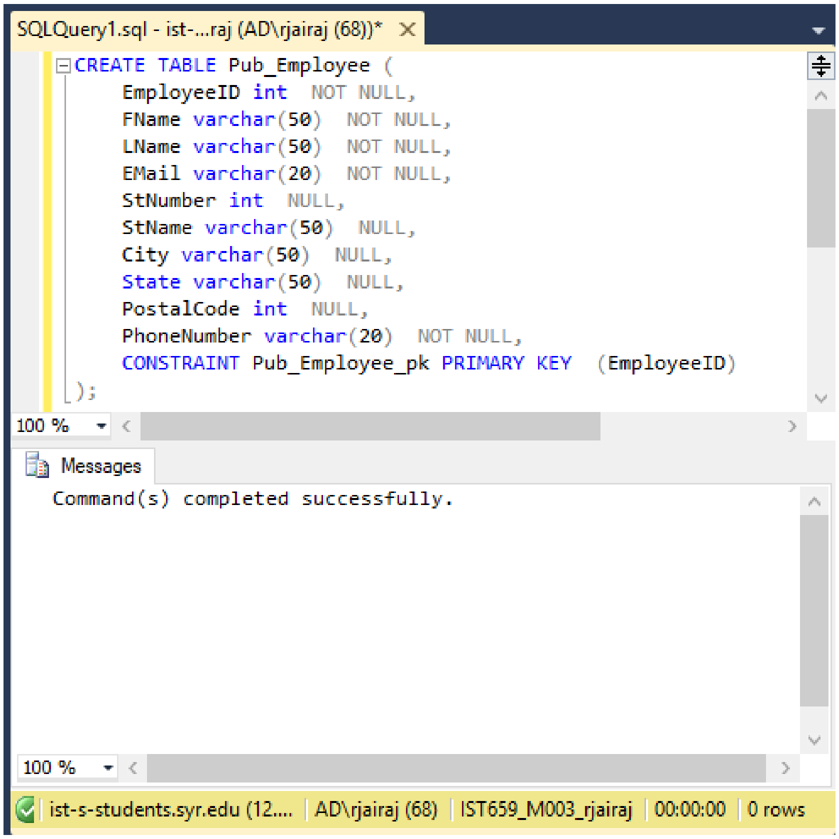

SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages
100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
CREATE TABLE Pub_Editor (
    NumberofManuscriptsWritten int  NULL,
    EditorID int  NOT NULL,
    CONSTRAINT Pub_Editor_pk PRIMARY KEY  (EditorID)
);
```

```
Command(s) completed successfully.
```

Create Table: Pub_Employee

```
CREATE TABLE Pub_Employee (
    EmployeeID int  NOT NULL,
    FName varchar(50)  NOT NULL,
    LName varchar(50)  NOT NULL,
    EMail varchar(20)  NOT NULL,
    StNumber int  NULL,
    StName varchar(50)  NULL,
    City varchar(50)  NULL,
    State varchar(50)  NULL,
    PostalCode int  NULL,
    PhoneNumber varchar(20)  NOT NULL,
    CONSTRAINT Pub_Employee_pk PRIMARY KEY  (EmployeeID)
);
```



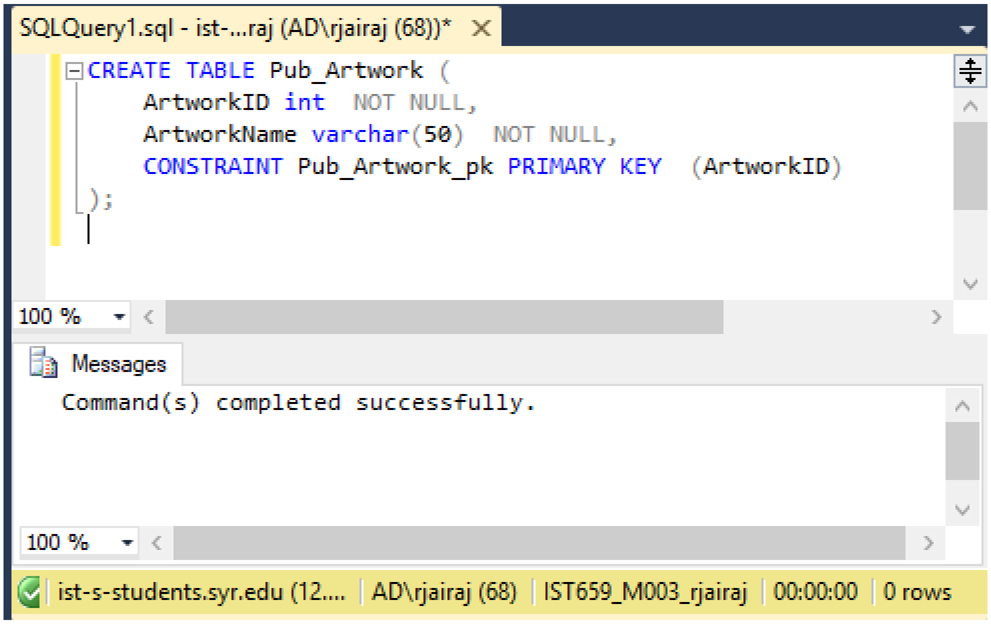
```
CREATE TABLE Pub_Employee (
    EmployeeID int  NOT NULL,
    FName varchar(50)  NOT NULL,
    LName varchar(50)  NOT NULL,
    EMail varchar(20)  NOT NULL,
    StNumber int  NULL,
    StName varchar(50)  NULL,
    City varchar(50)  NULL,
    State varchar(50)  NULL,
    PostalCode int  NULL,
    PhoneNumber varchar(20)  NOT NULL,
    CONSTRAINT Pub_Employee_pk PRIMARY KEY  (EmployeeID)
);
```

```
Command(s) completed successfully.
```

```
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows
```

Create Table: Pub_Artwork

```
CREATE TABLE Pub_Artwork (
    ArtworkID int  NOT NULL,
    ArtworkName varchar(50)  NOT NULL,
    CONSTRAINT Pub_Artwork_pk PRIMARY KEY  (ArtworkID)
);
```

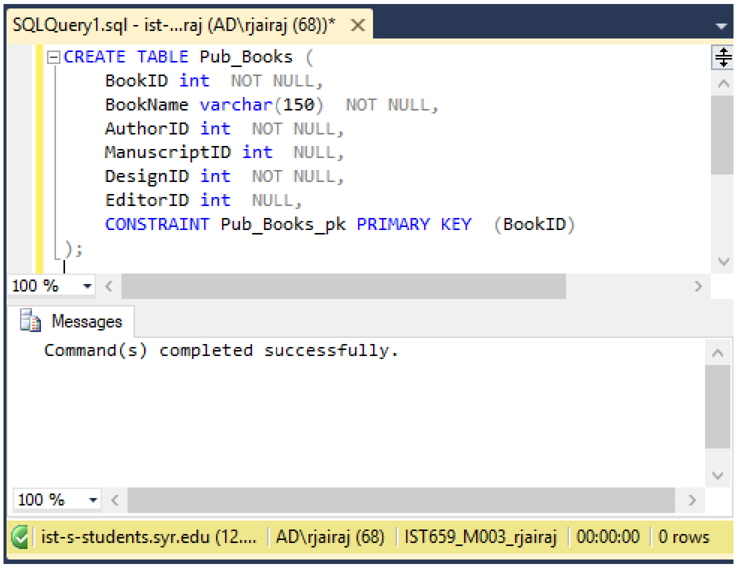

SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages
100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
CREATE TABLE Pub_Artwork (
    ArtworkID int  NOT NULL,
    ArtworkName varchar(50)  NOT NULL,
    CONSTRAINT Pub_Artwork_pk PRIMARY KEY  (ArtworkID)
);
```

```
Command(s) completed successfully.
```

Create Table: Pub_Books

```
CREATE TABLE Pub_Books (
    BookID int  NOT NULL,
    BookName varchar(150)  NOT NULL,
    AuthorID int  NOT NULL,
    ManuscriptID int  NULL,
    DesignID int  NOT NULL,
    EditorID int  NULL,
    CONSTRAINT Pub_Books_pk PRIMARY KEY  (BookID)
);
```

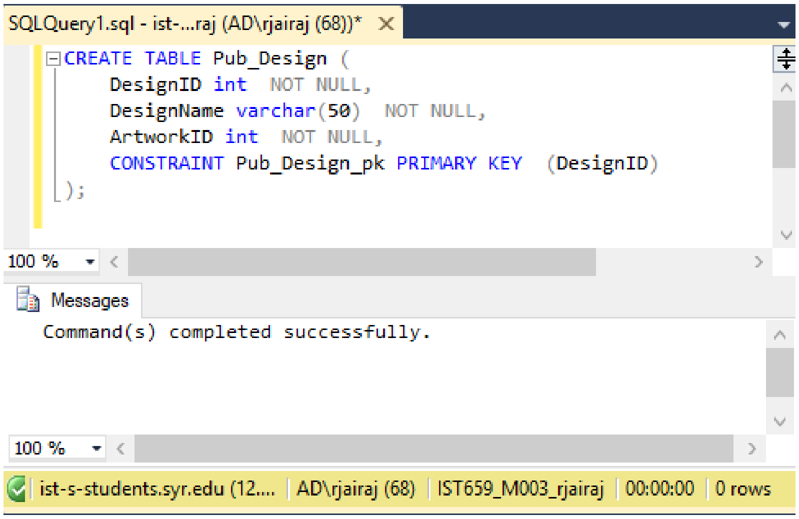

SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages
100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
CREATE TABLE Pub_Books (
    BookID int  NOT NULL,
    BookName varchar(150)  NOT NULL,
    AuthorID int  NOT NULL,
    ManuscriptID int  NULL,
    DesignID int  NOT NULL,
    EditorID int  NULL,
    CONSTRAINT Pub_Books_pk PRIMARY KEY  (BookID)
);
```

```
Command(s) completed successfully.
```

Create Table: Pub_Design

```
CREATE TABLE Pub_Design (
    DesignID int  NOT NULL,
    DesignName varchar(50)  NOT NULL,
    ArtworkID int  NOT NULL,
    CONSTRAINT Pub_Design_pk PRIMARY KEY  (DesignID)
);
```



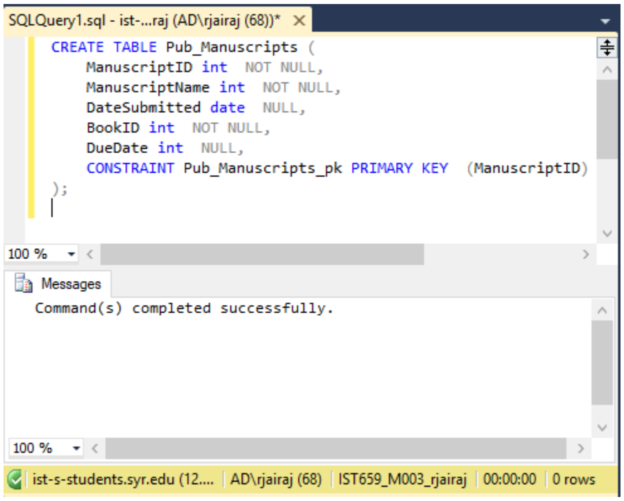
```
CREATE TABLE Pub_Design (
    DesignID int  NOT NULL,
    DesignName varchar(50)  NOT NULL,
    ArtworkID int  NOT NULL,
    CONSTRAINT Pub_Design_pk PRIMARY KEY  (DesignID)
);
```

```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Create Table: Pub_Manuscripts

```
CREATE TABLE Pub_Manuscripts (
    ManuscriptID int  NOT NULL,
    ManuscriptName int  NOT NULL,
    DateSubmitted date  NULL,
    BookID int  NOT NULL,
    DueDate int  NULL,
    CONSTRAINT Pub_Manuscripts_pk PRIMARY KEY  (ManuscriptID)
);
```



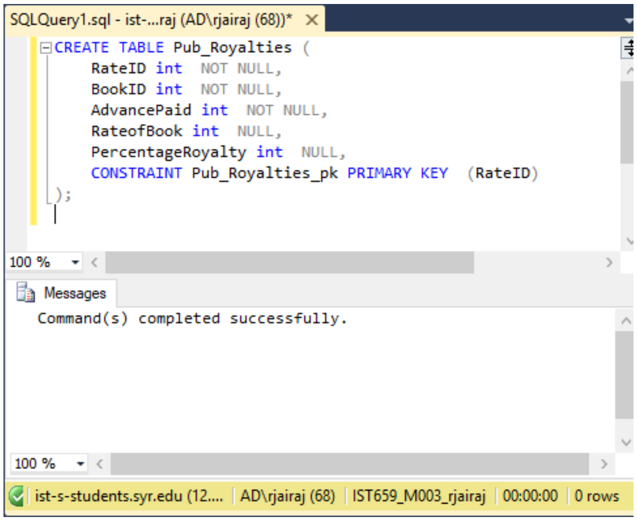
```
CREATE TABLE Pub_Manuscripts (
    ManuscriptID int  NOT NULL,
    ManuscriptName int  NOT NULL,
    DateSubmitted date  NULL,
    BookID int  NOT NULL,
    DueDate int  NULL,
    CONSTRAINT Pub_Manuscripts_pk PRIMARY KEY  (ManuscriptID)
);
```

```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Create Table: Pub_Royalties

```
CREATE TABLE Pub_Royalties (
    RateID int  NOT NULL,
    BookID int  NOT NULL,
    AdvancePaid int  NOT NULL,
    RateofBook int  NULL,
    PercentageRoyalty int  NULL,
    CONSTRAINT Pub_Royalties_pk PRIMARY KEY  (RateID)
);
```



SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*

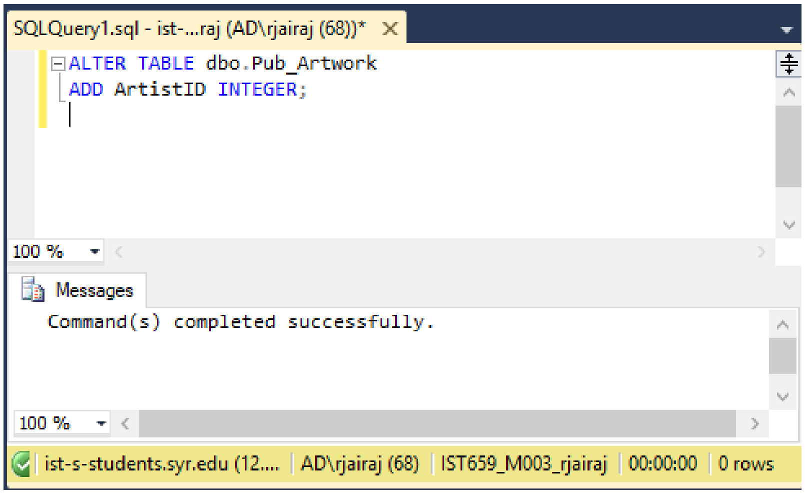
```
CREATE TABLE Pub_Royalties (
    RateID int  NOT NULL,
    BookID int  NOT NULL,
    AdvancePaid int  NOT NULL,
    RateofBook int  NULL,
    PercentageRoyalty int  NULL,
    CONSTRAINT Pub_Royalties_pk PRIMARY KEY  (RateID)
);
```

```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Adding a new column for ArtistID in Pub_Artwork

```
ALTER TABLE dbo.Pub_Artwork
ADD ArtistID INTEGER;
```



SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*

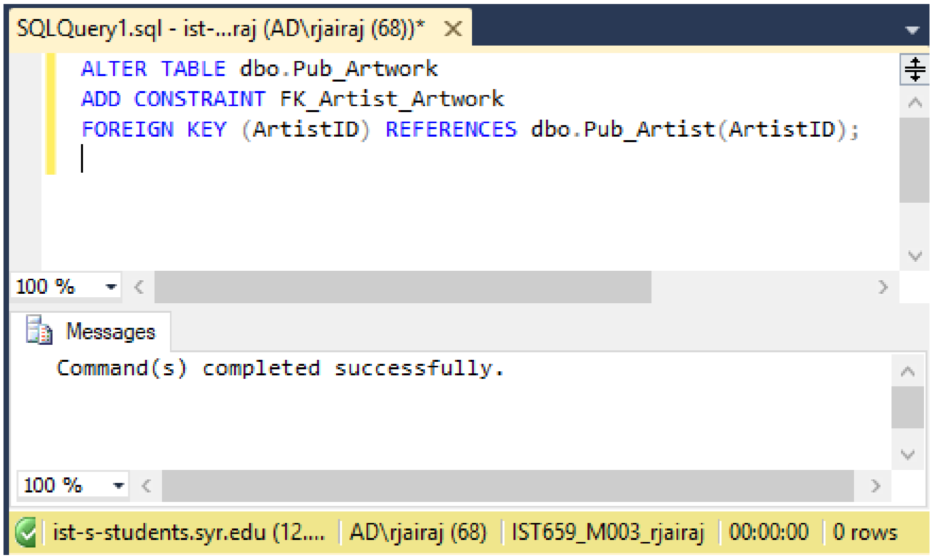
```
ALTER TABLE dbo.Pub_Artwork
ADD ArtistID INTEGER;
```

```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Adding Foreign Key for ArtistID in Pub_Artwork (with reference to ArtistID from Pub_Artist)

```
ALTER TABLE dbo.Pub_Artwork
ADD CONSTRAINT FK_Artist_Artwork
FOREIGN KEY (ArtistID) REFERENCES dbo.Pub_Artist(ArtistID);
```



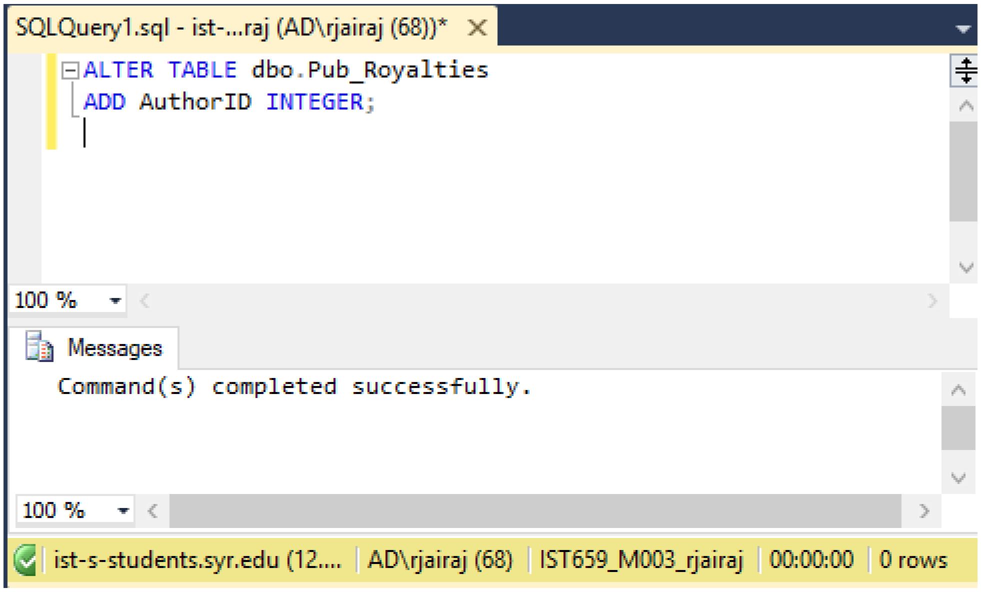
```
ALTER TABLE dbo.Pub_Artwork
ADD CONSTRAINT FK_Artist_Artwork
FOREIGN KEY (ArtistID) REFERENCES dbo.Pub_Artist(ArtistID);
```

```
Command(s) completed successfully.
```

```
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows
```

Adding a new column for AuthorID in Pub_Royalties

```
ALTER TABLE dbo.Pub_Royalties
ADD AuthorID INTEGER;
```



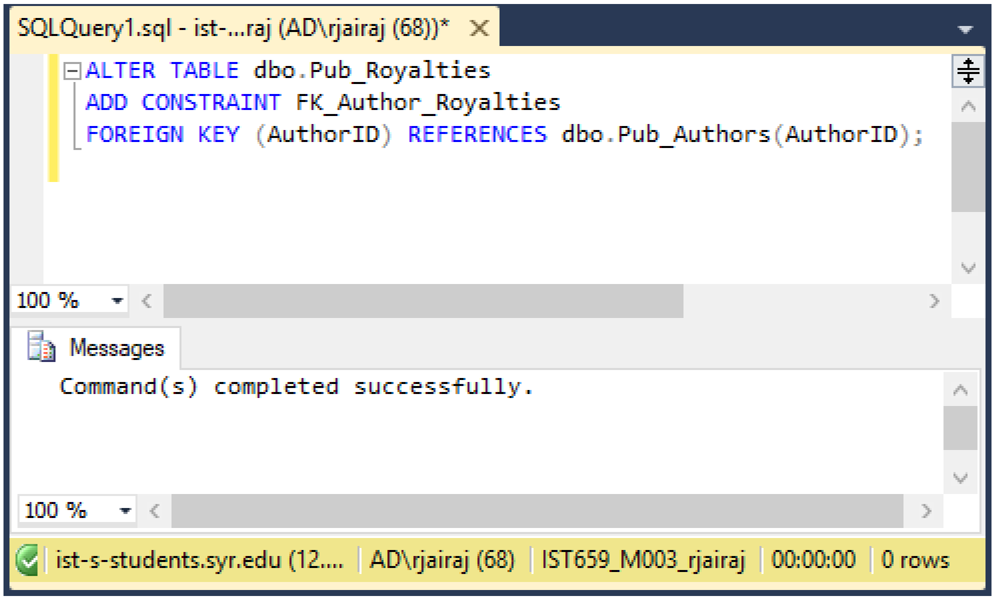
```
ALTER TABLE dbo.Pub_Royalties
ADD AuthorID INTEGER;
```

```
Command(s) completed successfully.
```

```
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows
```

Adding Foreign Key for AuthorID in Pub_Royalties (with reference to AuthorID from Pub_Authors)

```
ALTER TABLE dbo.Pub_Royalties
ADD CONSTRAINT FK_Author_Royalties
FOREIGN KEY (AuthorID) REFERENCES dbo.Pub_Authors(AuthorID);
```



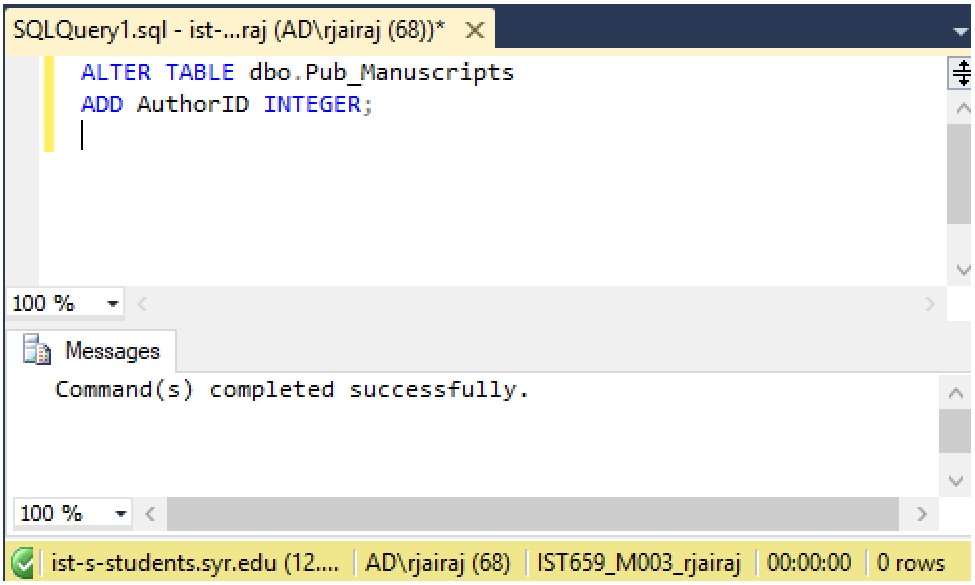
```
ALTER TABLE dbo.Pub_Royalties
ADD CONSTRAINT FK_Author_Royalties
FOREIGN KEY (AuthorID) REFERENCES dbo.Pub_Authors(AuthorID);
```

```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Adding a new column for AuthorID in Pub_Manuscripts

```
ALTER TABLE dbo.Pub_Manuscripts
ADD AuthorID INTEGER;
```



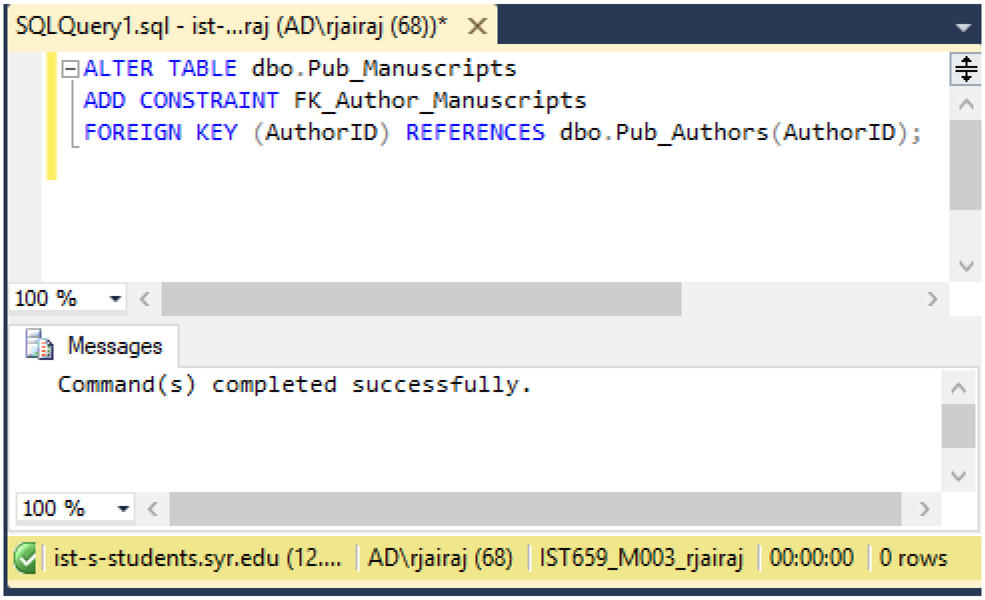
```
ALTER TABLE dbo.Pub_Manuscripts
ADD AuthorID INTEGER;
```

```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Adding Foreign Key for AuthorID in Pub_Manuscripts (with reference to AuthorID from Pub_Authors)

```
ALTER TABLE dbo.Pub_Manuscripts
ADD CONSTRAINT FK_Author_Manuscripts
FOREIGN KEY (AuthorID) REFERENCES dbo.Pub_Authors(AuthorID);
```

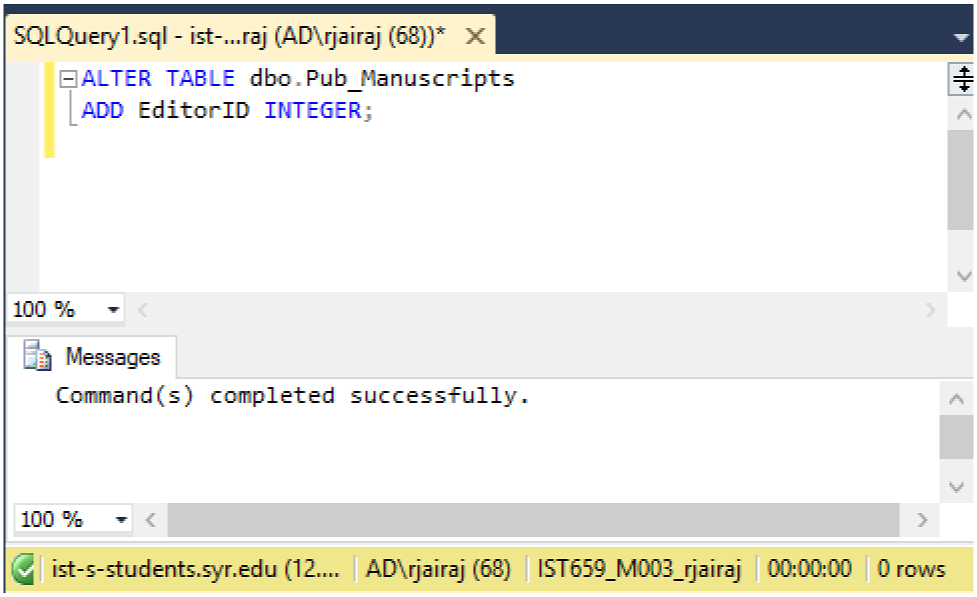

SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages
100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
ALTER TABLE dbo.Pub_Manuscripts
ADD CONSTRAINT FK_Author_Manuscripts
FOREIGN KEY (AuthorID) REFERENCES dbo.Pub_Authors(AuthorID);
```

```
Command(s) completed successfully.
```

Adding a new column for EditorID in Pub_Manuscripts

```
ALTER TABLE dbo.Pub_Manuscripts
ADD EditorID INTEGER;
```

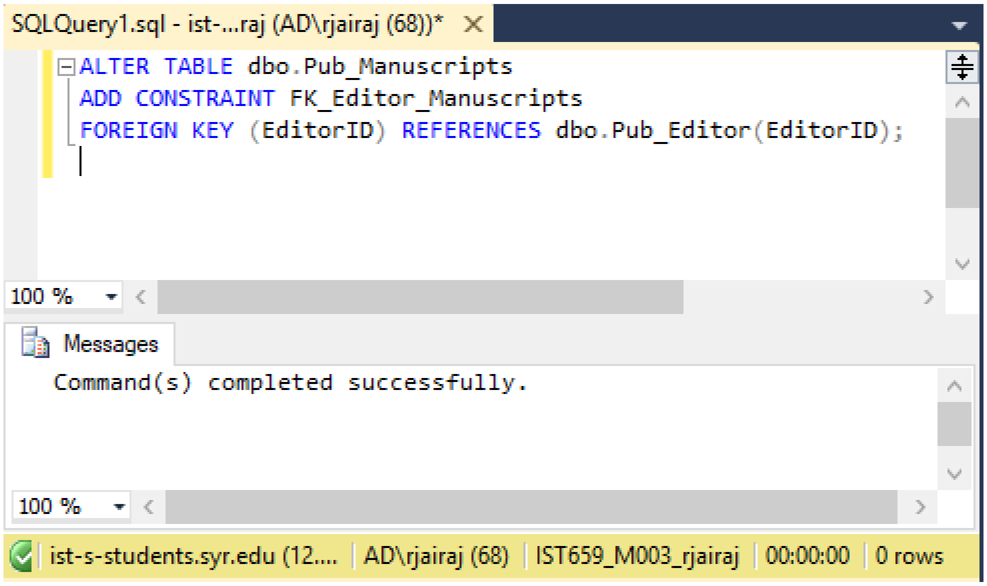

SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages
100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
ALTER TABLE dbo.Pub_Manuscripts
ADD EditorID INTEGER;
```

```
Command(s) completed successfully.
```

Adding Foreign Key for EditorID in Pub_Manuscripts (with reference to EditorID from Pub_Editor)

```
ALTER TABLE dbo.Pub_Manuscripts
ADD CONSTRAINT FK_Editor_Manuscripts
FOREIGN KEY (EditorID) REFERENCES dbo.Pub_Editor(EditorID);
```



SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*

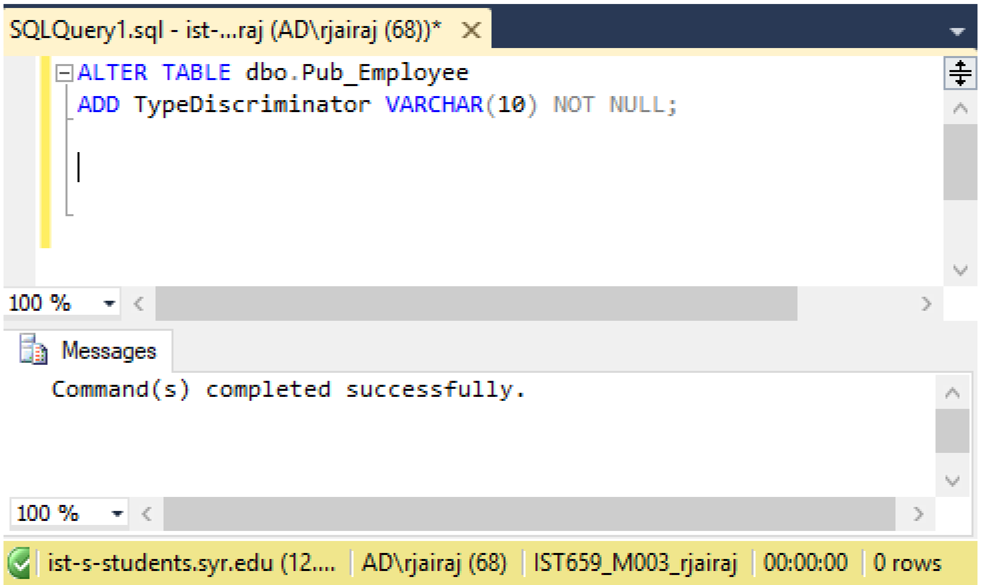
```
ALTER TABLE dbo.Pub_Manuscripts
ADD CONSTRAINT FK_Editor_Manuscripts
FOREIGN KEY (EditorID) REFERENCES dbo.Pub_Editor(EditorID);
```

```
Command(s) completed successfully.
```

100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Adding a Type Discriminator to Employees for the three types of employees:

```
ALTER TABLE dbo.Pub_Employee
ADD TypeDiscriminator VARCHAR(10) NOT NULL;
```



SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*

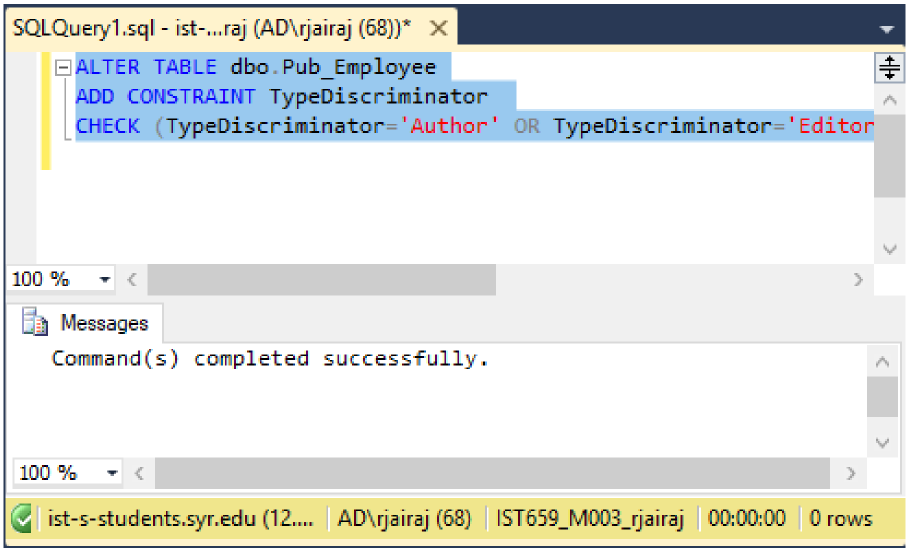
```
ALTER TABLE dbo.Pub_Employee
ADD TypeDiscriminator VARCHAR(10) NOT NULL;
```

```
Command(s) completed successfully.
```

100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Adding a constraint for the type of Employee – Artist, Author or Editor:

```
ALTER TABLE dbo.Pub_Employee
ADD CONSTRAINT TypeDiscriminator
CHECK (TypeDiscriminator='Author' OR TypeDiscriminator='Editor' OR
TypeDiscriminator='Artist')
```


SQLQuery1.sql - ist-...raj (AD\rjairaj (68))*
100 %
Messages

```
ALTER TABLE dbo.Pub_Employee
ADD CONSTRAINT TypeDiscriminator
CHECK (TypeDiscriminator='Author' OR TypeDiscriminator='Editor
```

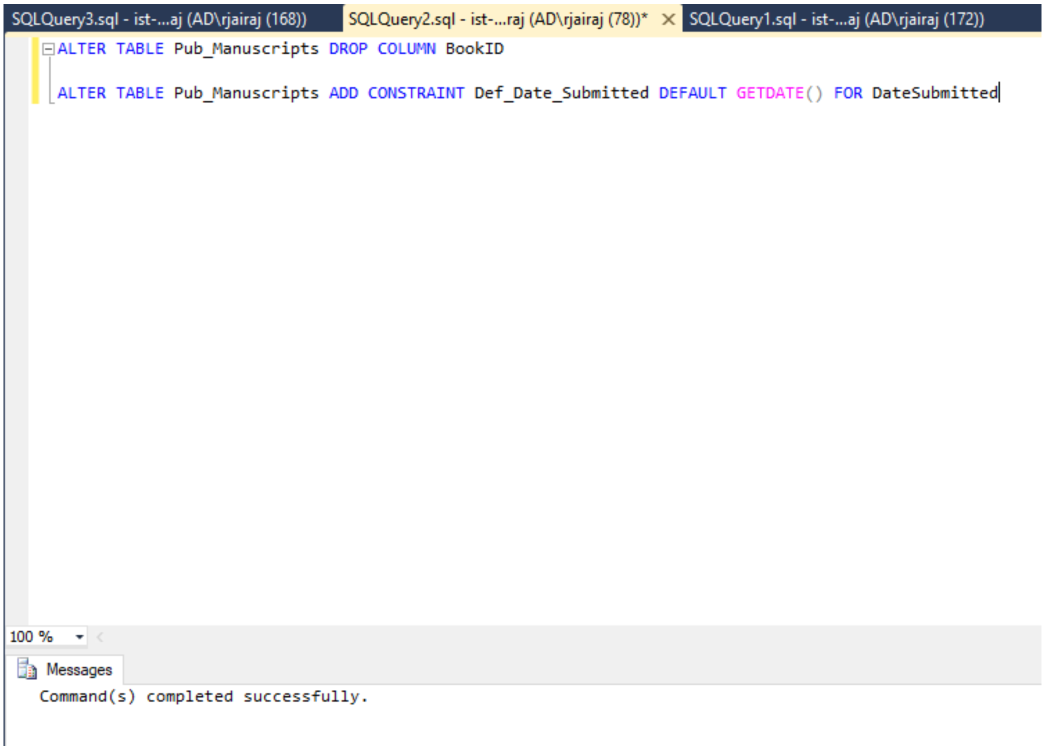
```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (68) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Modify Manuscript as:

```
ALTER TABLE Pub_Manuscripts DROP COLUMN BookID

ALTER TABLE Pub_Manuscripts ADD CONSTRAINT Def_Date_Submitted DEFAULT GETDATE() FOR
DateSubmitted
```

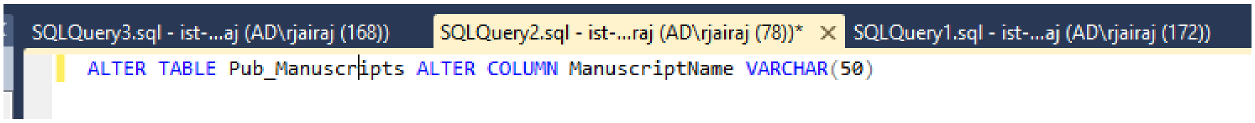

SQLQuery3.sql - ist-...aj (AD\rjairaj (168))
SQLQuery2.sql - ist-...raj (AD\rjairaj (78))*
SQLQuery1.sql - ist-...aj (AD\rjairaj (172))
100 %
Messages

```
ALTER TABLE Pub_Manuscripts DROP COLUMN BookID

ALTER TABLE Pub_Manuscripts ADD CONSTRAINT Def_Date_Submitted DEFAULT GETDATE() FOR DateSubmitted
```

```
Command(s) completed successfully.
```

```
ALTER TABLE Pub_Manuscripts ALTER COLUMN ManuscriptName VARCHAR(50)
```

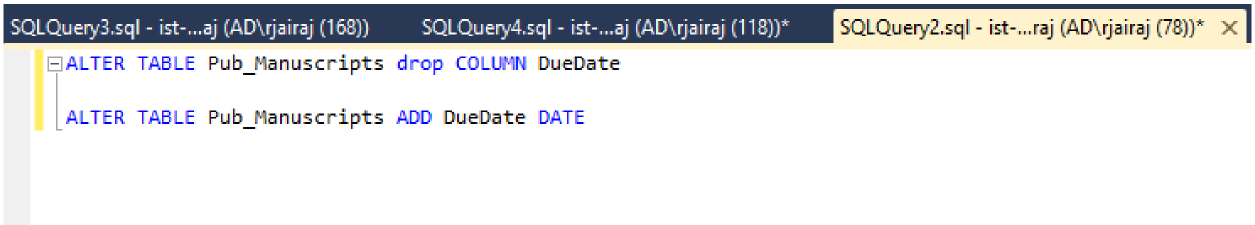

SQLQuery3.sql - ist-...aj (AD\rjairaj (168))
SQLQuery2.sql - ist-...raj (AD\rjairaj (78))*
SQLQuery1.sql - ist-...aj (AD\rjairaj (172))

```
ALTER TABLE Pub_Manuscripts ALTER COLUMN ManuscriptName VARCHAR(50)
```

Changing incorrect datatypes

```
ALTER TABLE Pub_Manuscripts drop COLUMN DueDate

ALTER TABLE Pub_Manuscripts ADD DueDate DATE
```


SQLQuery3.sql - ist-...aj (AD\rjairaj (168))
SQLQuery4.sql - ist-...aj (AD\rjairaj (118))*
SQLQuery2.sql - ist-...raj (AD\rjairaj (78))*

```
ALTER TABLE Pub_Manuscripts drop COLUMN DueDate

ALTER TABLE Pub_Manuscripts ADD DueDate DATE
```

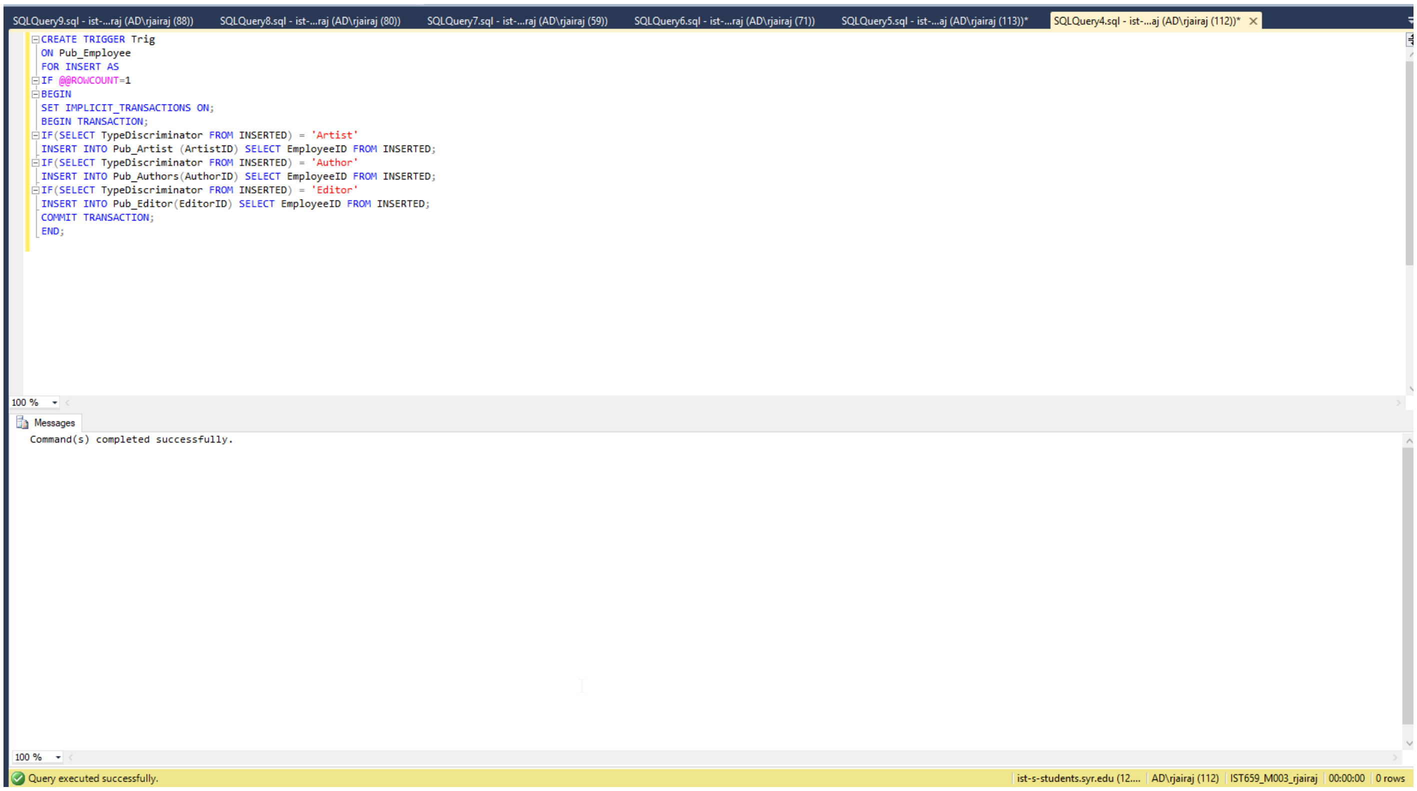
Now most importantly, we have the trigger for auto inserting employees into their respective tables:

```
CREATE TRIGGER Trig
ON Pub_Employee
FOR INSERT AS
IF @@ROWCOUNT=1
BEGIN
SET IMPLICIT_TRANSACTIONS ON;
BEGIN TRANSACTION;
IF(SELECT TypeDiscriminator FROM INSERTED) = 'Artist'
INSERT INTO Pub_Artist (ArtistID) SELECT EmployeeID FROM INSERTED;
IF(SELECT TypeDiscriminator FROM INSERTED) = 'Author'
INSERT INTO Pub_Authors(AuthorID) SELECT EmployeeID FROM INSERTED;
IF(SELECT TypeDiscriminator FROM INSERTED) = 'Editor'
INSERT INTO Pub_Editor(EditorID) SELECT EmployeeID FROM INSERTED;
COMMIT TRANSACTION;
END;
```

Here, we have set transactions on just in case something goes wrong, we don't want anything to get wrongly inserted.

We have also used the "if" condition to determine which type of employee is being inserted, and based on the condition, insert into the appropriate table.

The inserted table contains the latest inserted row.



SQLQuery9.sql - ist-...raj (AD\rjairaj (88))
SQLQuery8.sql - ist-...raj (AD\rjairaj (80))
SQLQuery7.sql - ist-...raj (AD\rjairaj (59))
SQLQuery6.sql - ist-...raj (AD\rjairaj (71))
SQLQuery5.sql - ist-...aj (AD\rjairaj (113))*
SQLQuery4.sql - ist-...aj (AD\rjairaj (112))*
100 %
Messages
100 %

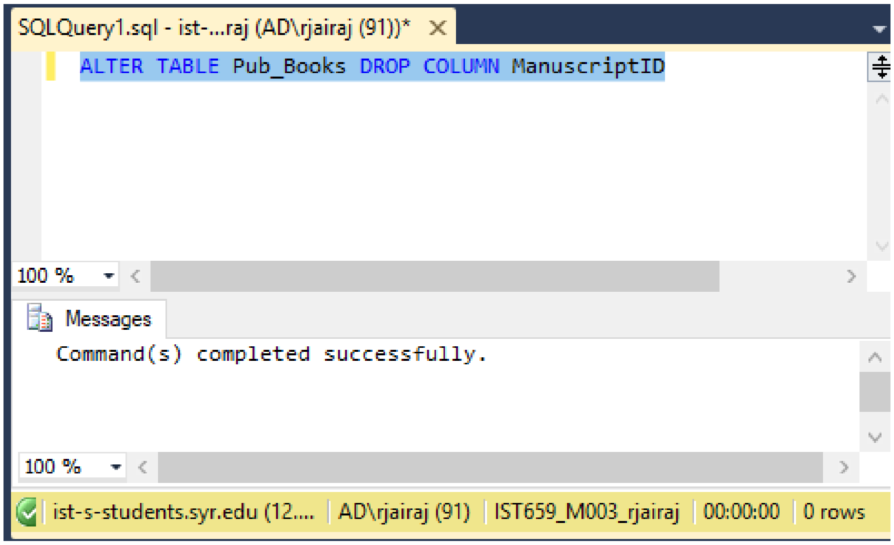
```
CREATE TRIGGER Trig
ON Pub_Employee
FOR INSERT AS
IF @@ROWCOUNT=1
BEGIN
SET IMPLICIT_TRANSACTIONS ON;
BEGIN TRANSACTION;
IF(SELECT TypeDiscriminator FROM INSERTED) = 'Artist'
INSERT INTO Pub_Artist (ArtistID) SELECT EmployeeID FROM INSERTED;
IF(SELECT TypeDiscriminator FROM INSERTED) = 'Author'
INSERT INTO Pub_Authors(AuthorID) SELECT EmployeeID FROM INSERTED;
IF(SELECT TypeDiscriminator FROM INSERTED) = 'Editor'
INSERT INTO Pub_Editor(EditorID) SELECT EmployeeID FROM INSERTED;
COMMIT TRANSACTION;
END;
```

```
Command(s) completed successfully.
```

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\rjairaj (112) | IST659_M003_rjairaj | 00:00:00 | 0 rows

Now, for the change from the implementation report, we remove the column Manuscript ID from Books and add Book ID to Manuscript to handle the scenario of linking multiple manuscripts to one book. We can also view scenarios in which the same author/editor need not be linked to the same author/editor in both Manuscript and Books tables. So, Adam can write Manuscript 1, Bob can edit it, Charles can write Manuscript 2, Darren can edit it and combining the 2 manuscripts to Book1, a totally new author, Elliot can consolidate it and Farid can edit it.

```
ALTER TABLE Pub_Books DROP COLUMN ManuscriptID
```

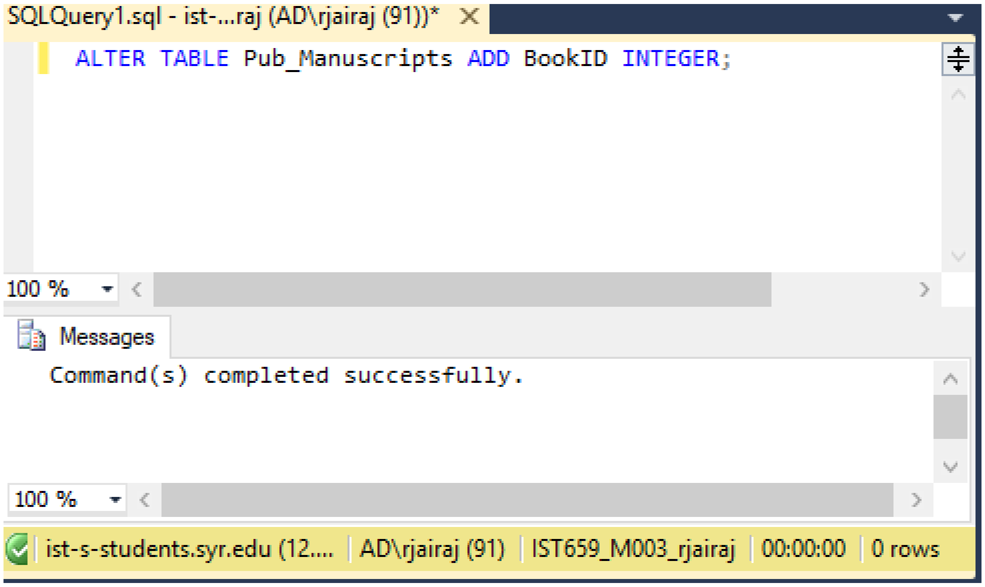


```
ALTER TABLE Pub_Books DROP COLUMN ManuscriptID
```

```
Command(s) completed successfully.
```

ist-s-students.syr.edu (12.... | AD\rjairaj (91) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
ALTER TABLE Pub_Manuscripts ADD BookID INTEGER
```


SQLQuery1.sql - ist-...raj (AD\rjairaj (91))*
100 %
Messages
100 %
ist-s-students.syr.edu (12.... | AD\rjairaj (91) | IST659_M003_rjairaj | 00:00:00 | 0 rows

```
ALTER TABLE Pub_Manuscripts ADD BookID INTEGER;
```

```
Command(s) completed successfully.
```

Now, on the topic of inserting data into the tables we have the following:

PS – It must be mentioned that we have used only a few of these queries in order to populate our tables – rest were added via access. It was all junk data initially to ensure whether correct data was passed downstream to relevant areas, and later these were modified. So, this data was made to be as such over the course of time and these statements are created after the fact, in order for recreation and verification.

For Pub_employee table:

```
INSERT INTO Pub_Employee VALUES
(1,'Rahul','Jairaj','rj@pub.com',657,'Brighton Ave.','Syracuse','NY',13244,'315-572-
6884','Artist'),
(2,'AJ','Mannings','aj@pub.com',333,'S. Crouse Ave.','Syracuse','NY',13225,'444-666-
8888','Artist'),
(3,'Bill','Gates','bg@pub.com',333,'Clapham','San Francisco','CA',66666,'111-222-
3333','Artist'),
(4,'Brian','Cadillac','bc@pub.com',747,'Big Tree Lane','Los Angeles','CA',55555,'444-222-
6666','Author'),
(5,'Mary','Holm','mh@pub.com',799,'Littleroot','New York','NY',99999,'111-222-
4444','Author'),
(6,'Ulyses','Jardin','uj@pub.com',342,'Pinecone Pl.','Los Angeles','CA',28342,'666-455-
3333','Author'),
(7,'Fraco','Leone','fl@pub.com',429,'Fairhaven','San Jose','CA',83456,'222-777-
4444','Editor'),
(8,'Lionel','Ritchie','lr@pub.com',783,'Teakwood','Los Angeles','CA',59699,'111-333-
7543','Editor'),
(9,'Shankar','Varma','sv@pub.com',284,'Hastings','New York','NY',37466,'928-111-
3445','Editor'),
(10,'Jacques','Mariland','jm@pub.com',542,'Cianwood','Buffalo','NY',14567,'444-333-
7777','Artist'),
(11,'Jamir','Luciene','jl@pub.com',732,'H. Jameson','New York','NY',53367,'455-323-
7777','Author'),
(12,'Jay','Raj','jr@pub.com',777,'E. Mauvile','Albany','NY',38367,'895-323-
8977','Editor')
```

Now, moving on to the Pub_Artist table,

```
UPDATE Pub_Artist SET NumberofWorks = 5 WHERE ArtistID=1
UPDATE Pub_Artist SET NumberofWorks = 6 WHERE ArtistID=2
UPDATE Pub_Artist SET NumberofWorks = 7 WHERE ArtistID=3
```

Similarly for Pub_Editor table:

```
UPDATE Pub_Editor SET NumberofManuscriptsWritten = 11 WHERE EditorID=7
UPDATE Pub_Editor SET NumberofManuscriptsWritten = 12 WHERE EditorID=8
UPDATE Pub_Editor SET NumberofManuscriptsWritten = 13 WHERE EditorID=9
```

And for Pub_Authors table:

```
UPDATE Pub_Authors SET NumberofManuscriptsWritten = 8 WHERE AuthorID=4
UPDATE Pub_Authors SET NumberofManuscriptsWritten = 9 WHERE AuthorID=5
UPDATE Pub_Authors SET NumberofManuscriptsWritten = 10 WHERE AuthorID=6
```

Moving on to the Artwork table, as we have already filled in artist details,

```
INSERT INTO Pub_Artwork VALUES
(1,'Snitch',1),
(2,'Wand',2),
(3,'Mickey',2),
(4,'President',1)
```

Next, we can do designs:

```
INSERT INTO Pub_Design VALUES
(1,'Design 1',1),
(2,'Design 2',2),
(3,'Design 3',1)
```

Moving on to Manuscripts, as we have done Authors and Editors,

We have two different statements because we the users didn’t enter SubmittedDate the first 2 times – by default it will take it as the current date y the GETDATE() function.

```
INSERT INTO Pub_Manuscripts (ManuscriptID,ManuscriptName,AuthorID,EditorID,DueDate)
VALUES
(1,'Sports in Harry Potter',4,7,'2017-12-06'),
(3,'Magical Boy Wizard',5,8,'2017-12-08');
INSERT INTO Pub_Manuscripts VALUES (3,'Magic Animals','2017-11-24',6,8,'2017-11-29');
```

Coming up next, we have the central entity – Pub_Books:

```
  INSERT INTO Pub_Books
  VALUES (1,'Quidditch',4,1,1,7),
  (2,'Harry Potter',5,2,2,8)
```

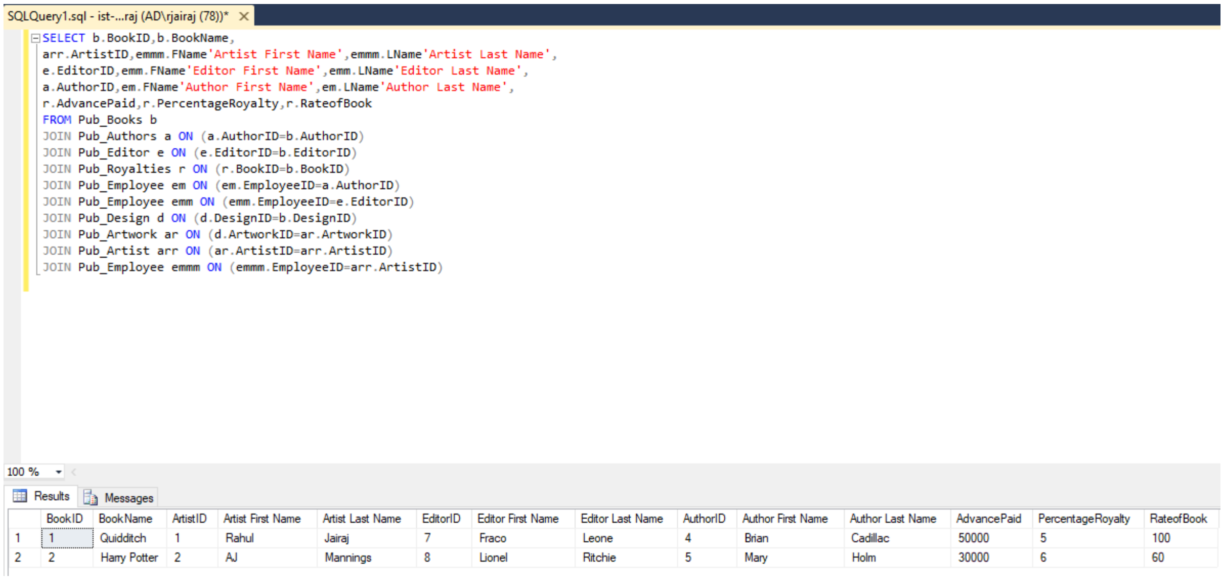
Finally, we have royalty:

```
INSERT INTO Pub_Royalties
VALUES (1,1,50000,100,5,4),
(2,2,30000,60,6,5)
```

DATA QUESTIONS

1. How to view all the details of all books – Book ID, Author, Editor, Royalties etc.?

```
SELECT b.BookID,b.BookName,
arr.ArtistID,emmm.FName'Artist First Name',emmm.LName'Artist Last Name',
e.EditorID,emm.FName'Editor First Name',emm.LName'Editor Last Name',
a.AuthorID,em.FName'Author First Name',em.LName'Author Last Name',
r.AdvancePaid,r.PercentageRoyalty,r.RateofBook
FROM Pub_Books b
JOIN Pub_Authors a ON (a.AuthorID=b.AuthorID)
JOIN Pub_Editor e ON (e.EditorID=b.EditorID)
JOIN Pub_Royalties r ON (r.BookID=b.BookID)
JOIN Pub_Employee em ON (em.EmployeeID=a.AuthorID)
JOIN Pub_Employee emm ON (emm.EmployeeID=e.EditorID)
JOIN Pub_Design d ON (d.DesignID=b.DesignID)
JOIN Pub_Artwork ar ON (d.ArtworkID=ar.ArtworkID)
JOIN Pub_Artist arr ON (ar.ArtistID=arr.ArtistID)
JOIN Pub_Employee emmm ON (emmm.EmployeeID=arr.ArtistID)
```

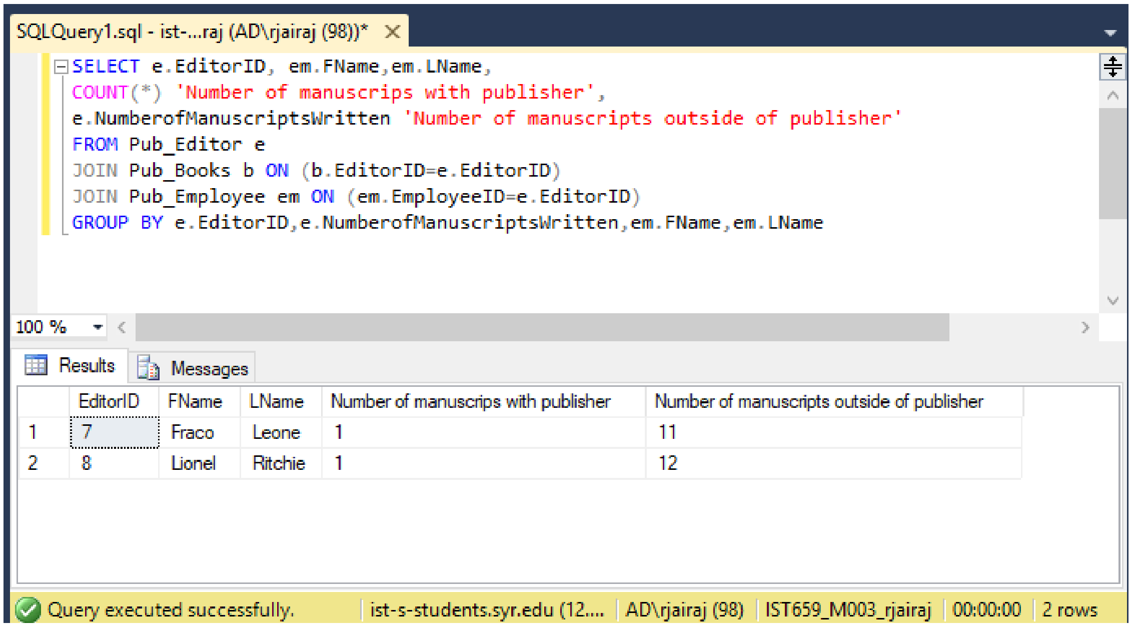


```
SELECT b.BookID,b.BookName,
arr.ArtistID,emmm.FName'Artist First Name',emmm.LName'Artist Last Name',
e.EditorID,emm.FName'Editor First Name',emm.LName'Editor Last Name',
a.AuthorID,em.FName'Author First Name',em.LName'Author Last Name',
r.AdvancePaid,r.PercentageRoyalty,r.RateofBook
FROM Pub_Books b
JOIN Pub_Authors a ON (a.AuthorID=b.AuthorID)
JOIN Pub_Editor e ON (e.EditorID=b.EditorID)
JOIN Pub_Royalties r ON (r.BookID=b.BookID)
JOIN Pub_Employee em ON (em.EmployeeID=a.AuthorID)
JOIN Pub_Employee emm ON (emm.EmployeeID=e.EditorID)
JOIN Pub_Design d ON (d.DesignID=b.DesignID)
JOIN Pub_Artwork ar ON (d.ArtworkID=ar.ArtworkID)
JOIN Pub_Artist arr ON (ar.ArtistID=arr.ArtistID)
JOIN Pub_Employee emmm ON (emmm.EmployeeID=arr.ArtistID)
```

	BookID	BookName	ArtistID	Artist First Name	Artist Last Name	EditorID	Editor First Name	Editor Last Name	AuthorID	Author First Name	Author Last Name	AdvancePaid	PercentageRoyalty	RateofBook
1	1	Quidditch	1	Rahul	Jairaj	7	Fraco	Leone	4	Brian	Cadillac	50000	5	100
2	2	Harry Potter	2	AJ	Mannings	8	Lionel	Ritchie	5	Mary	Holm	30000	6	60

2. Compare the number of works an editor has in the publishing company as compared to outside.

```
SELECT e.EditorID, em.FName,em.LName,
COUNT(*) 'Number of manuscrips with publisher',
e.NumberofManuscriptsWritten 'Number of manuscripts outside of publisher'
FROM Pub_Editor e
JOIN Pub_Books b ON (b.EditorID=e.EditorID)
JOIN Pub_Employee em ON (em.EmployeeID=e.EditorID)
GROUP BY e.EditorID,e.NumberofManuscriptsWritten,em.FName,em.LName
```



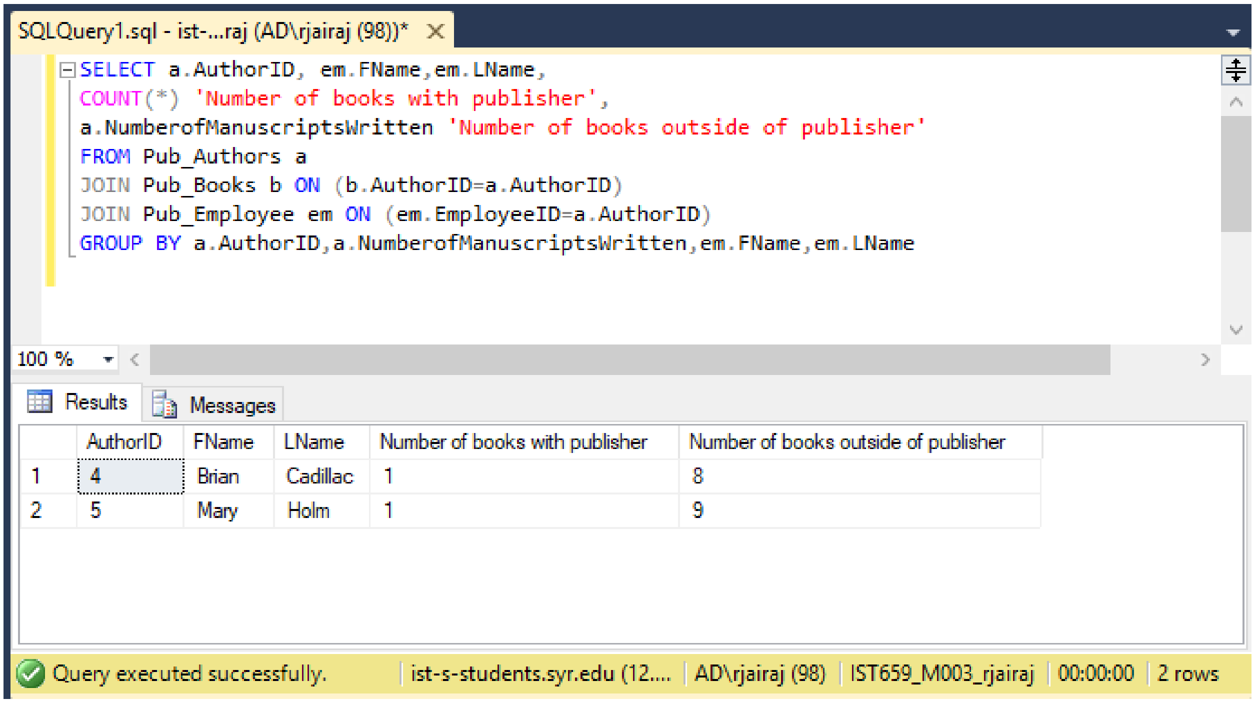
```
SELECT e.EditorID, em.FName,em.LName,
COUNT(*) 'Number of manuscrips with publisher',
e.NumberofManuscriptsWritten 'Number of manuscripts outside of publisher'
FROM Pub_Editor e
JOIN Pub_Books b ON (b.EditorID=e.EditorID)
JOIN Pub_Employee em ON (em.EmployeeID=e.EditorID)
GROUP BY e.EditorID,e.NumberofManuscriptsWritten,em.FName,em.LName
```

	EditorID	FName	LName	Number of manuscrips with publisher	Number of manuscripts outside of publisher
1	7	Fraco	Leone	1	11
2	8	Lionel	Ritchie	1	12

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\rjairaj (98) | IST659_M003_rjairaj | 00:00:00 | 2 rows

3. Compare the number of works an author has in the publishing company as compared to outside.

```
SELECT a.AuthorID, em.FName,em.LName,
COUNT(*) 'Number of books with publisher',
a.NumberofManuscriptsWritten 'Number of books outside of publisher'
FROM Pub_Authors a
JOIN Pub_Books b ON (b.AuthorID=a.AuthorID)
JOIN Pub_Employee em ON (em.EmployeeID=a.AuthorID)
GROUP BY a.AuthorID,a.NumberofManuscriptsWritten,em.FName,em.LName
```



SQLQuery1.sql - ist-...raj (AD\rjairaj (98))*

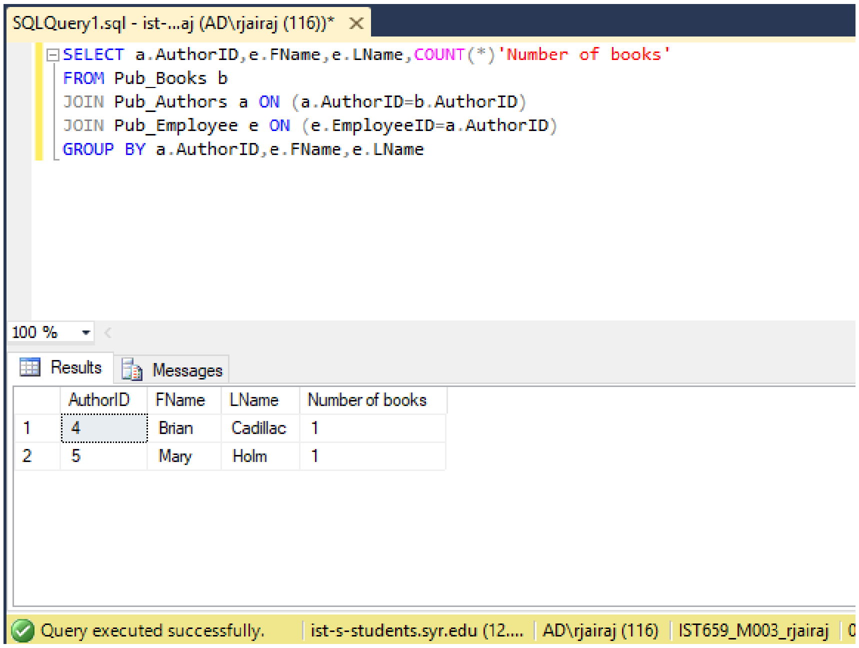
```
SELECT a.AuthorID, em.FName,em.LName,
COUNT(*) 'Number of books with publisher',
a.NumberofManuscriptsWritten 'Number of books outside of publisher'
FROM Pub_Authors a
JOIN Pub_Books b ON (b.AuthorID=a.AuthorID)
JOIN Pub_Employee em ON (em.EmployeeID=a.AuthorID)
GROUP BY a.AuthorID,a.NumberofManuscriptsWritten,em.FName,em.LName
```

	AuthorID	FName	LName	Number of books with publisher	Number of books outside of publisher
1	4	Brian	Cadillac	1	8
2	5	Mary	Holm	1	9

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\rjairaj (98) | IST659_M003_rjairaj | 00:00:00 | 2 rows

4. Number of books for each author

```
SELECT a.AuthorID,e.FName,e.LName,COUNT(*)'Number of books'
FROM Pub_Books b
JOIN Pub_Authors a ON (a.AuthorID=b.AuthorID)
JOIN Pub_Employee e ON (e.EmployeeID=a.AuthorID)
GROUP BY a.AuthorID,e.FName,e.LName
```



SQLQuery1.sql - ist-...aj (AD\rjairaj (116))*

```sql
SELECT a.AuthorID,e.FName,e.LName,COUNT(*)'Number of books'
FROM Pub_Books b
JOIN Pub_Authors a ON (a.AuthorID=b.AuthorID)
JOIN Pub_Employee e ON (e.EmployeeID=a.AuthorID)
GROUP BY a.AuthorID,e.FName,e.LName
```

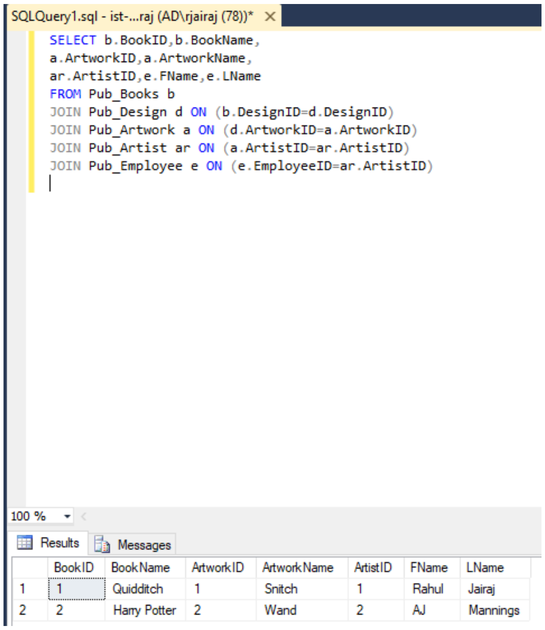
100 %

	AuthorID	FName	LName	Number of books
1	4	Brian	Cadillac	1
2	5	Mary	Holm	1

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\rjairaj (116) | IST659_M003_rjairaj | 0

5. Which artist has drawn in each book?

```sql
SELECT b.BookID,b.BookName,
a.ArtworkID,a.ArtworkName,
ar.ArtistID,e.FName,e.LName
FROM Pub_Books b
JOIN Pub_Design d ON (b.DesignID=d.DesignID)
JOIN Pub_Artwork a ON (d.ArtworkID=a.ArtworkID)
JOIN Pub_Artist ar ON (a.ArtistID=ar.ArtistID)
JOIN Pub_Employee e ON (e.EmployeeID=ar.ArtistID)
```



SQLQuery1.sql - ist-...raj (AD\rjairaj (78))*

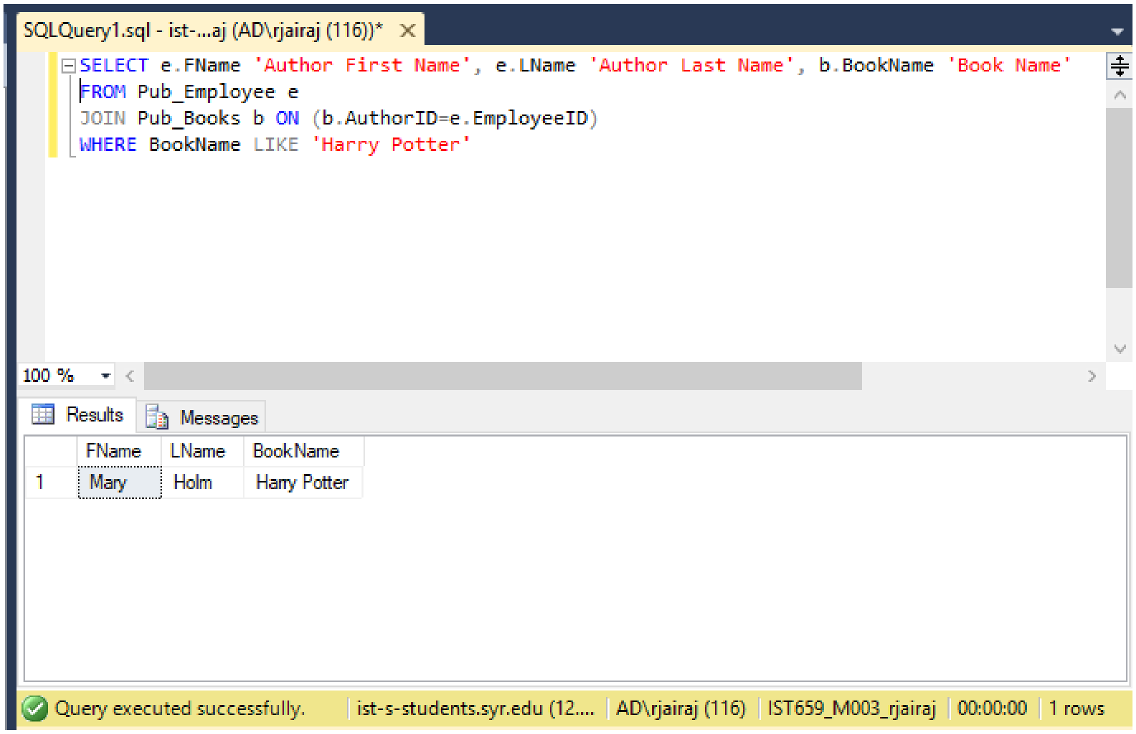
```sql
SELECT b.BookID,b.BookName,
a.ArtworkID,a.ArtworkName,
ar.ArtistID,e.FName,e.LName
FROM Pub_Books b
JOIN Pub_Design d ON (b.DesignID=d.DesignID)
JOIN Pub_Artwork a ON (d.ArtworkID=a.ArtworkID)
JOIN Pub_Artist ar ON (a.ArtistID=ar.ArtistID)
JOIN Pub_Employee e ON (e.EmployeeID=ar.ArtistID)
```

100 %

	BookID	BookName	ArtworkID	ArtworkName	ArtistID	FName	LName
1	1	Quidditch	1	Snitch	1	Rahul	Jairaj
2	2	Harry Potter	2	Wand	2	AJ	Mannings

6. Who is the author of “Harry Potter”

```
SELECT e.FName 'Author First Name', e.LName 'Author Last Name', b.BookName 'Book Name'
FROM Pub_Employee e
JOIN Pub_Books b ON (b.AuthorID=e.EmployeeID)
WHERE BookName LIKE 'Harry Potter'
```



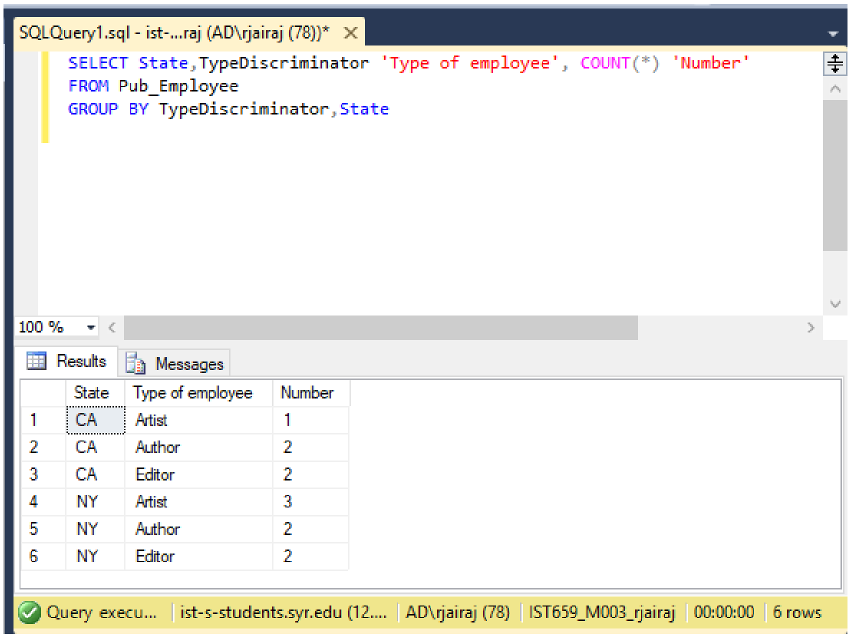
```
SELECT e.FName 'Author First Name', e.LName 'Author Last Name', b.BookName 'Book Name'
FROM Pub_Employee e
JOIN Pub_Books b ON (b.AuthorID=e.EmployeeID)
WHERE BookName LIKE 'Harry Potter'
```

	FName	LName	BookName
1	Mary	Holm	Harry Potter

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\rjairaj (116) | IST659_M003_rjairaj | 00:00:00 | 1 rows

7. How many of each – authors, editors and artists are from each state?

```
SELECT State,TypeDiscriminator 'Type of employee', COUNT(*) 'Number'
FROM Pub_Employee
GROUP BY TypeDiscriminator,State
```



```
SELECT State,TypeDiscriminator 'Type of employee', COUNT(*) 'Number'
FROM Pub_Employee
GROUP BY TypeDiscriminator,State
```

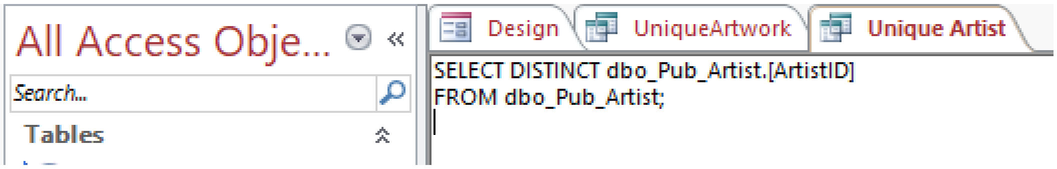
	State	Type of employee	Number
1	CA	Artist	1
2	CA	Author	2
3	CA	Editor	2
4	NY	Artist	3
5	NY	Author	2
6	NY	Editor	2

Query execu... | ist-s-students.syr.edu (12.... | AD\rjairaj (78) | IST659_M003_rjairaj | 00:00:00 | 6 rows

FORMS

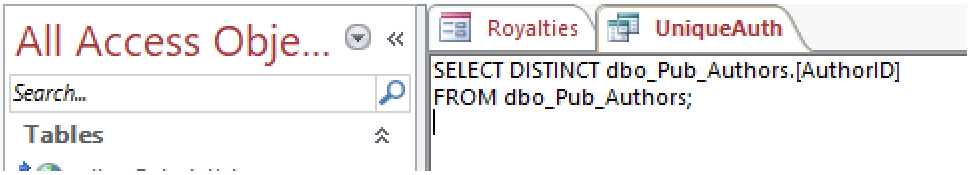
First of all, we have a few queries for helping make combo boxes.

Listing out all unique Artists:



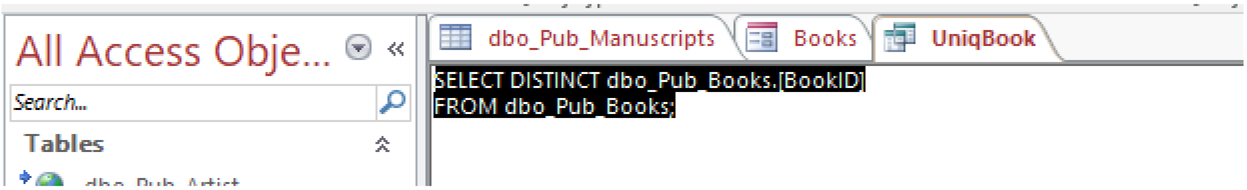
```
SELECT DISTINCT dbo_Pub_Artist.[ArtistID]
FROM dbo_Pub_Artist;
```

Listing out all unique Authors:



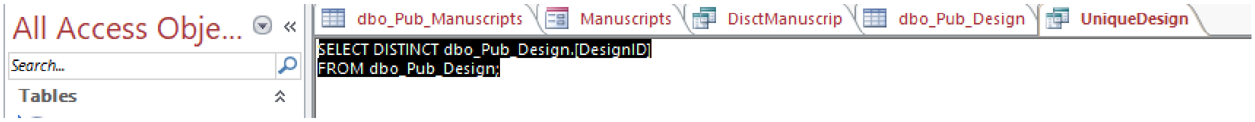
```
SELECT DISTINCT dbo_Pub_Authors.[AuthorID]
FROM dbo_Pub_Authors;
```

Listing out all unique Books:



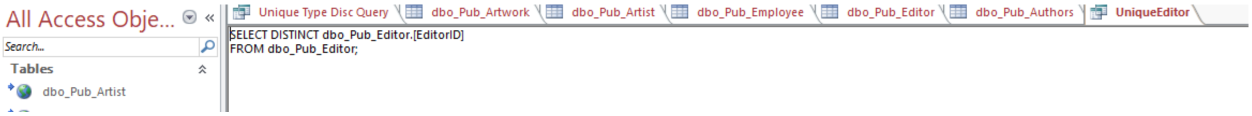
```
SELECT DISTINCT dbo_Pub_Books.[BookID]
FROM dbo_Pub_Books;
```

Listing out all unique Designs:



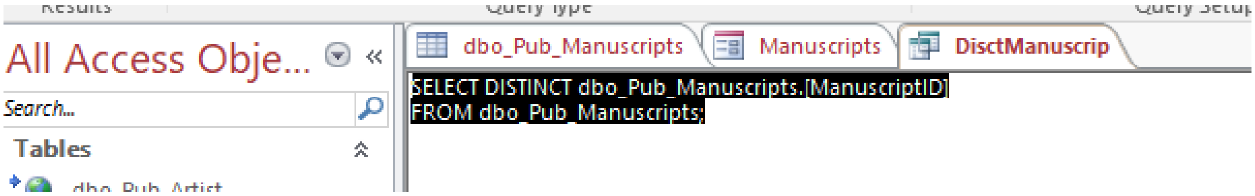
```
SELECT DISTINCT dbo_Pub_Design.[DesignID]
FROM dbo_Pub_Design;
```

Listing out all unique Editor:



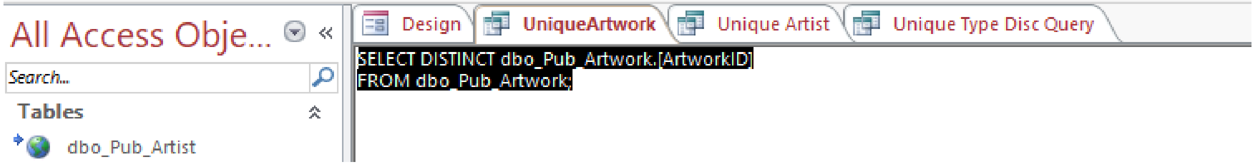
```
SELECT DISTINCT dbo_Pub_Editor.[EditorID]
FROM dbo_Pub_Editor;
```

Listing out all unique Manuscripts:



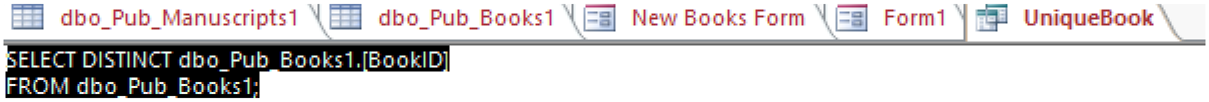
```
SELECT DISTINCT dbo_Pub_Manuscripts.[ManuscriptID]
FROM dbo_Pub_Manuscripts;
```

Listing out all unique Artworks:



```
SELECT DISTINCT dbo_Pub_Artwork.[ArtworkID]
FROM dbo_Pub_Artwork;
```

In addition, for the final report, we needed to query unique Books as well:

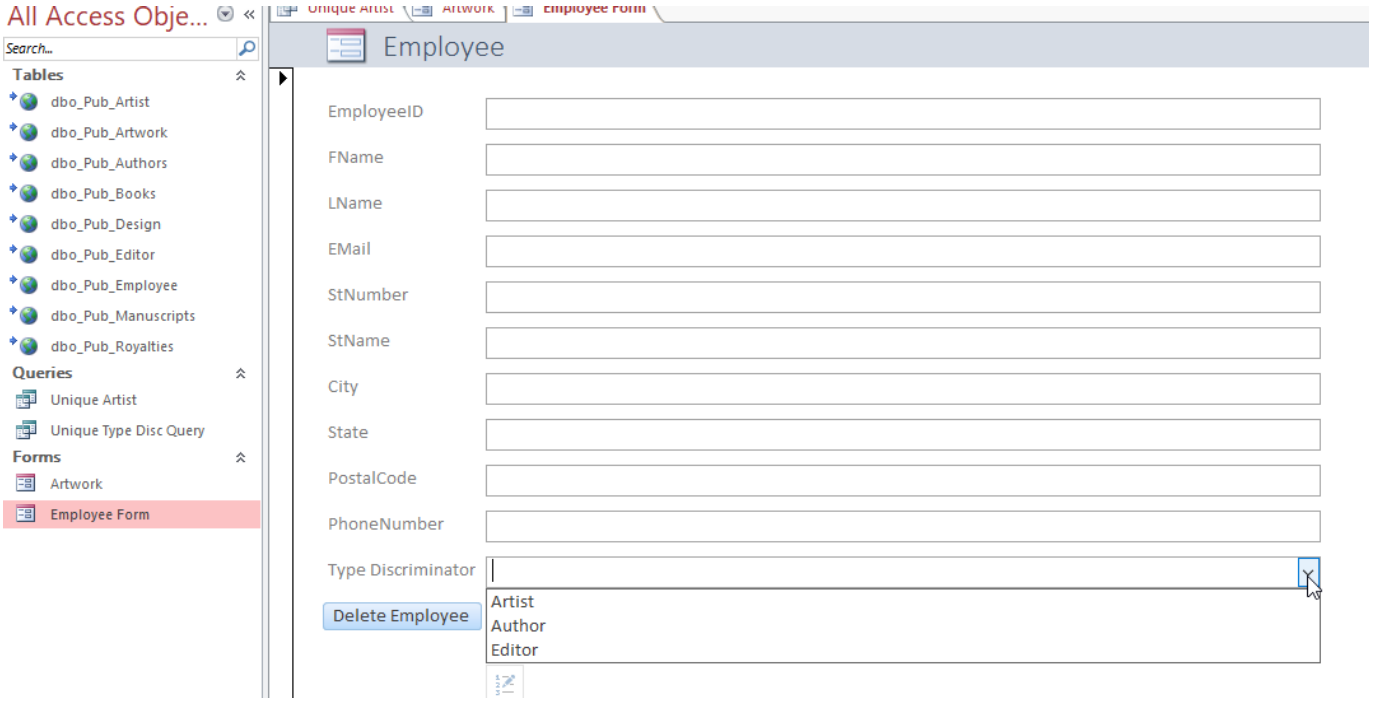


```
SELECT DISTINCT dbo_Pub_Books1.[BookID]
FROM dbo_Pub_Books1;
```

First of all, we have a form for Employees:

Here, we have buttons for adding and deleting employees.

We have a dropdown list for the type discriminator – ‘Author’, ‘Editor’ or ‘Artist’ – these are fixed values and embedded into the TypeDiscriminator column in Employee table.



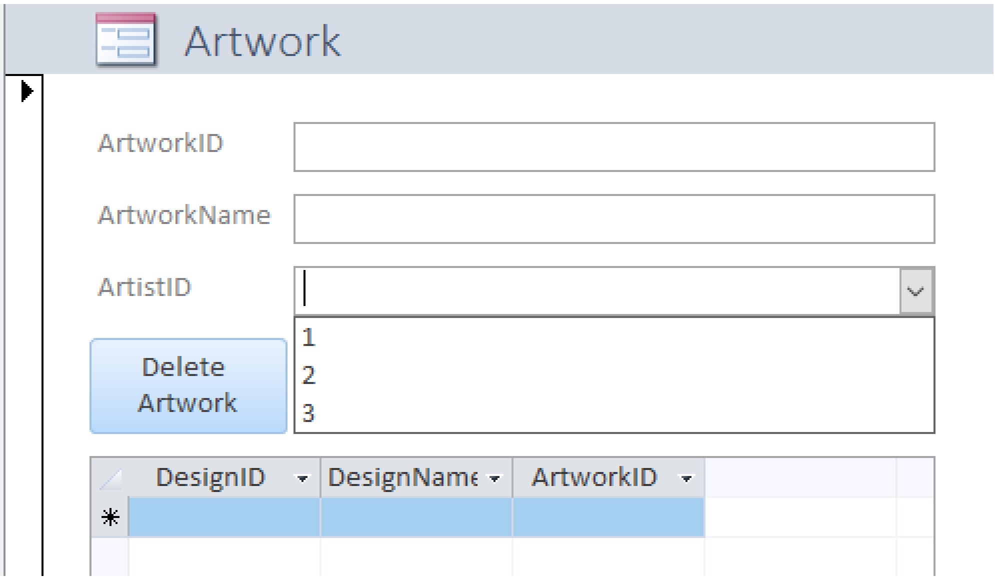
Next, moving to Artworks:

We have buttons for adding and deleting Artworks.

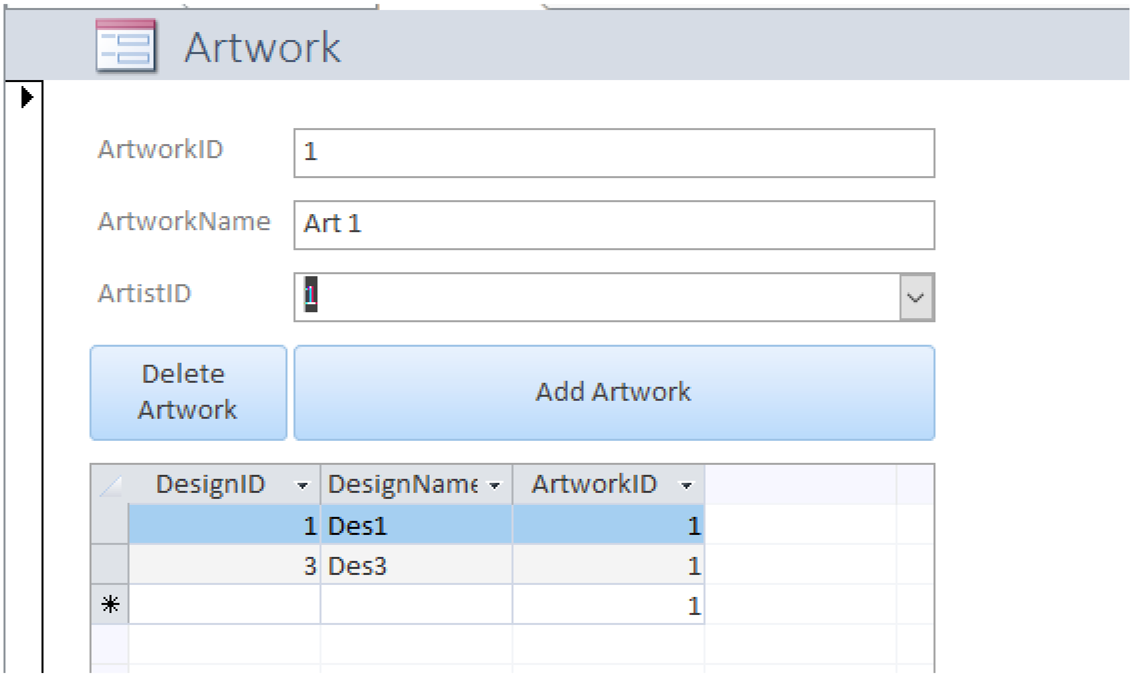
ArtistID is a combobox which has values derived from the query mentioned earlier – for unique ArtistIDs from Artist table.

These are embedded into the ArtistID in the Artwork Table.

We also have a sub-form with Design and its details – which filters the data as per the ArtworkID



Here is a populated form as an example.



ArtworkID	1
ArtworkName	Art 1
ArtistID	1

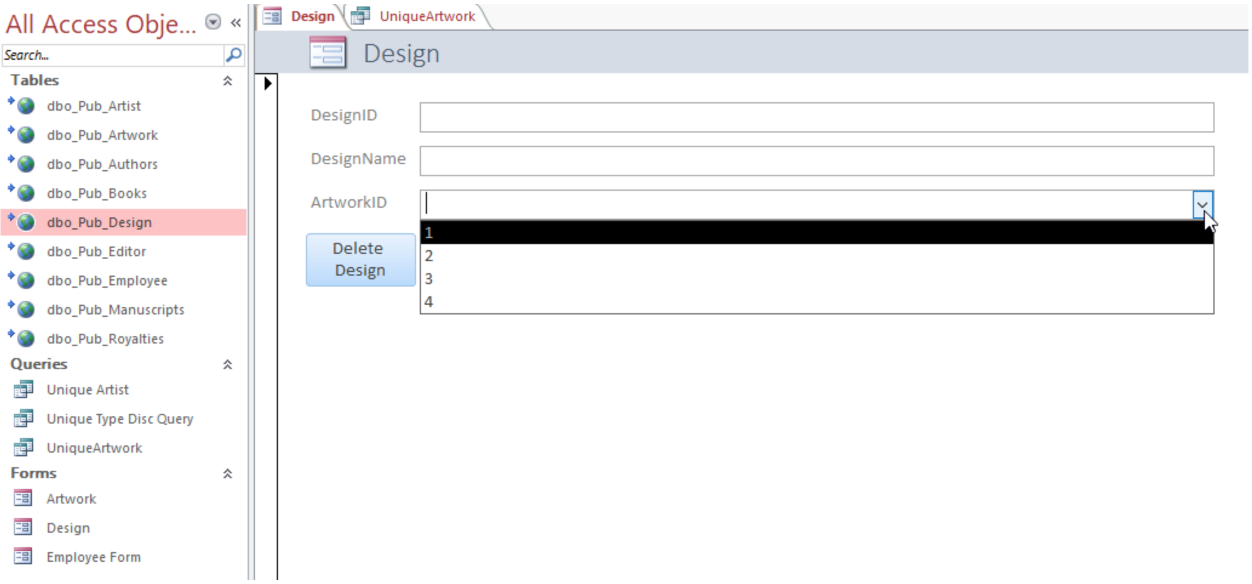
	DesignID	DesignName	ArtworkID
	1	Des1	1
	3	Des3	1
*			1

Next we have the Design form:

We have buttons for adding and deleting Designs.

ArtworkID is a combobox which has values derived from the query mentioned earlier – for unique ArtworkIDs from Artwork table.

These are embedded into the ArtworkID in the Design Table.



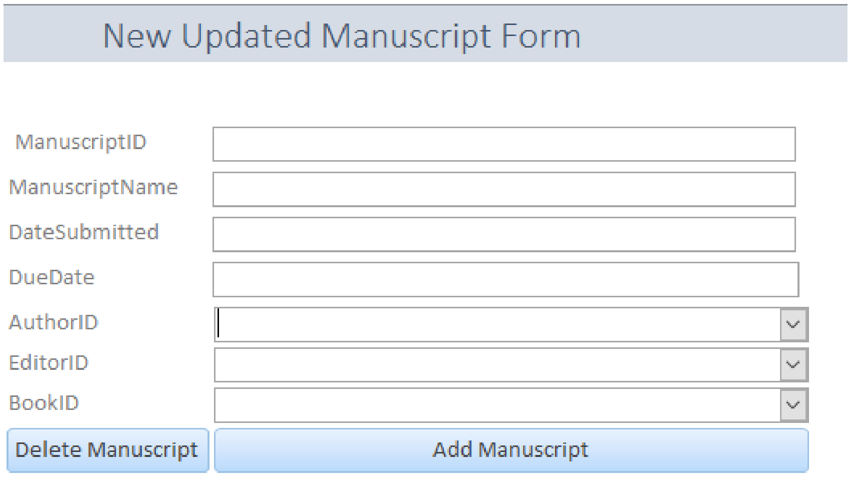
Moving on, we have the Manuscript form:

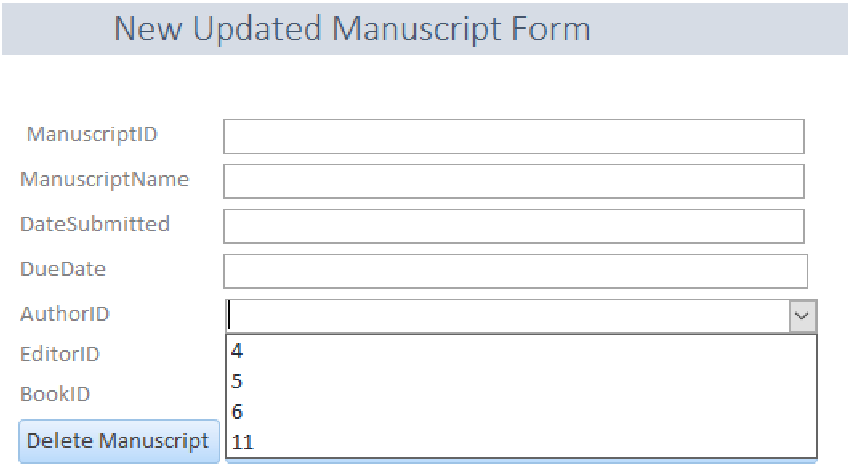
We have buttons for adding and deleting Manuscripts.

AuthorID and EditorID are comboboxes which have values derived from the queries mentioned earlier – for unique AuthorIDs and EditorIDs.

These are embedded into the AuthorID and EditorID in the Manuscripts Table.

(This form was updated, and book ID has been added, for the implementation phase. It also follows the same rules as Author ID and Editor ID. With the newly created query mentioned earlier, we list unique values of Book ID and embed it back into the Manuscript table.)





New Updated Manuscript Form

ManuscriptID

ManuscriptName

DateSubmitted

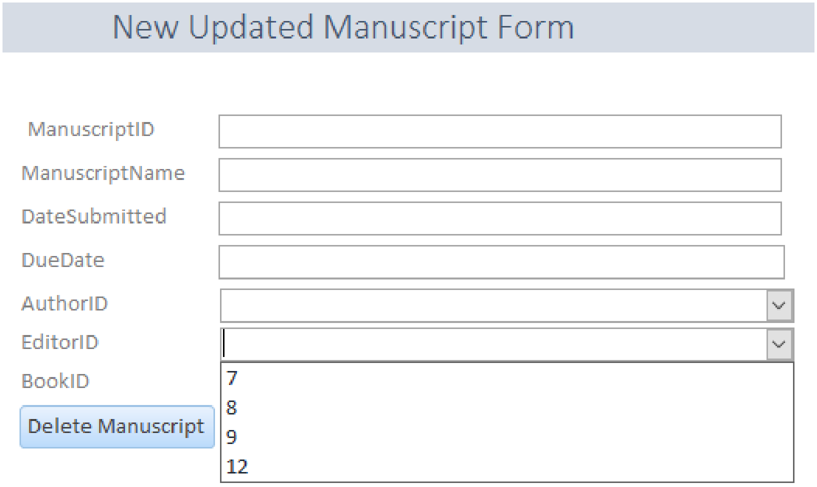
DueDate

AuthorID

4
5
6
11

EditorID

BookID



New Updated Manuscript Form

ManuscriptID

ManuscriptName

DateSubmitted

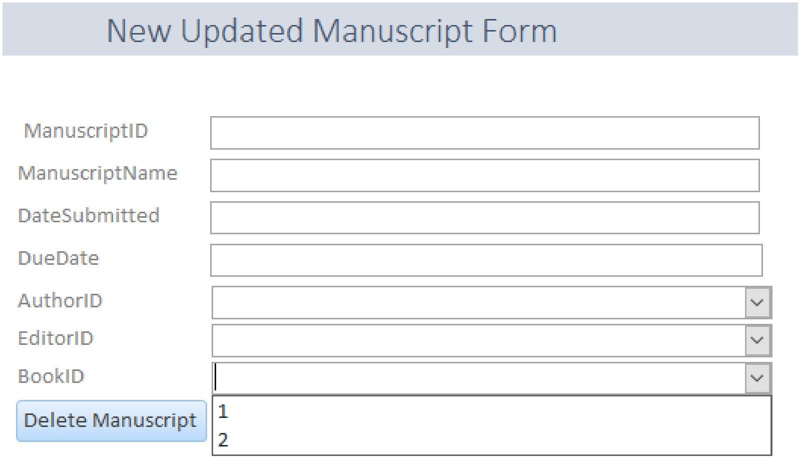
DueDate

AuthorID

EditorID

7
8
9
12

BookID



New Updated Manuscript Form

ManuscriptID

ManuscriptName

DateSubmitted

DueDate

AuthorID

EditorID

BookID

1
2

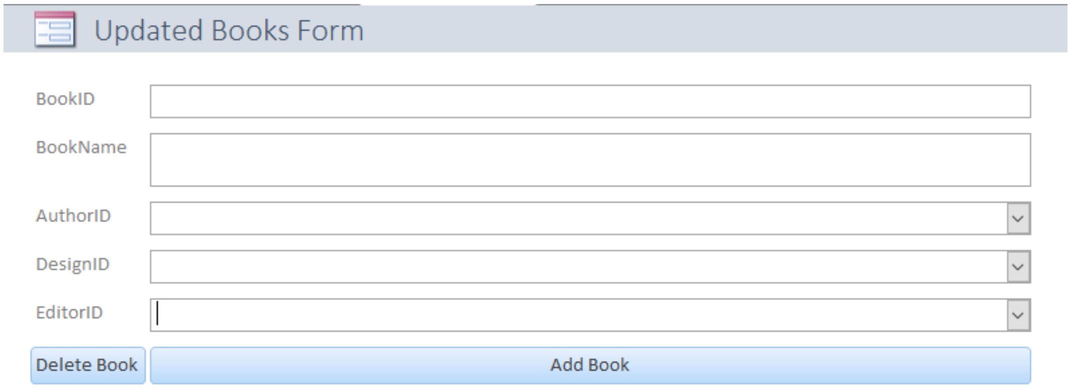
Coming up, is Books form:

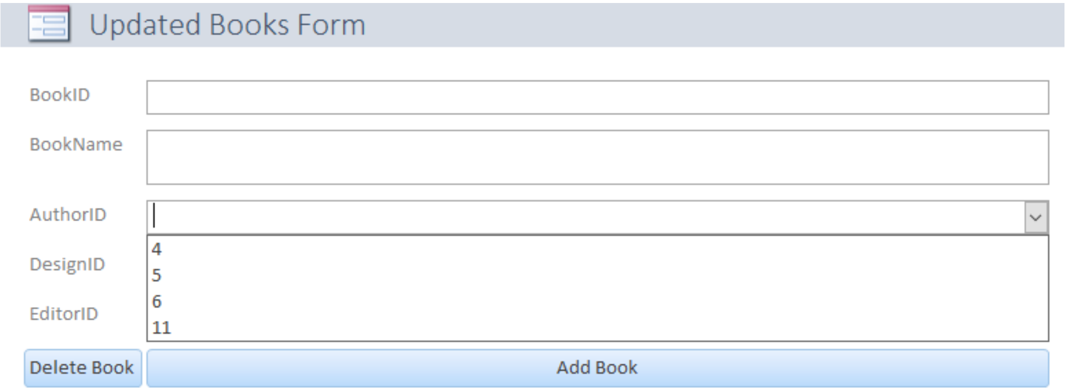
We have buttons for adding and deleting Books.

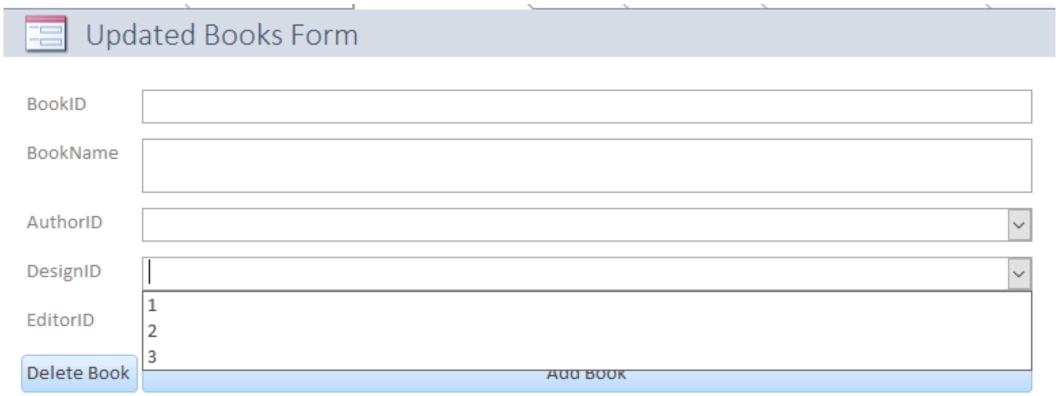
AuthorID, EditorID, DesignID are comboboxes which have values derived from the queries mentioned earlier.

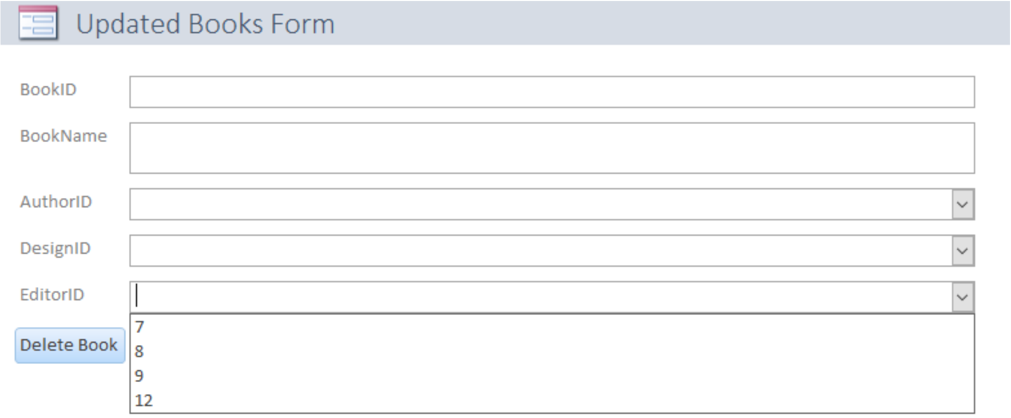
These are embedded into the fields of AuthorID, EditorID, DesignID in the Books Table.

(Manuscript ID has been removed from this table as per the change planned.)







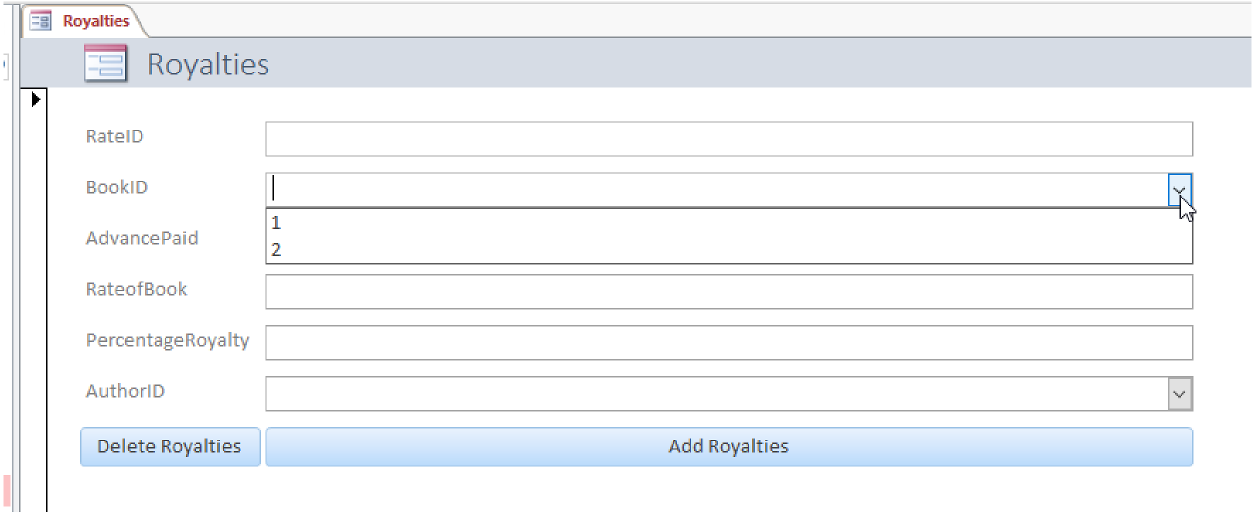


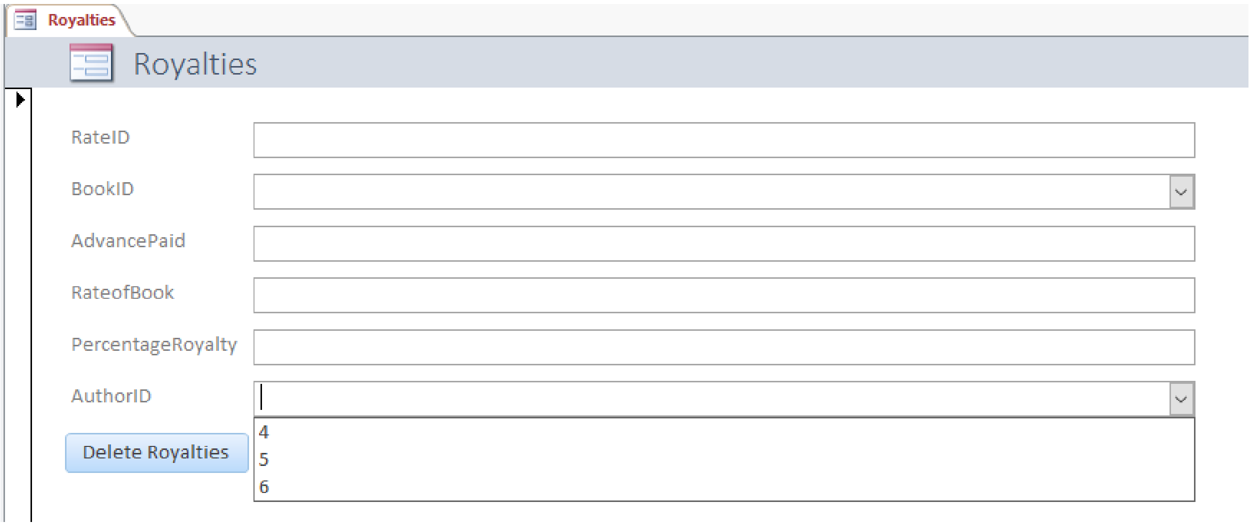
Next, we have the Royalties form:

We have buttons for adding and deleting Royalties.

AuthorID and BookID are comboboxes which have values derived from the queries mentioned earlier – for unique AuthorIDs and BookIDs.

These are embedded into the AuthorID and BookID in the Royalties Table.



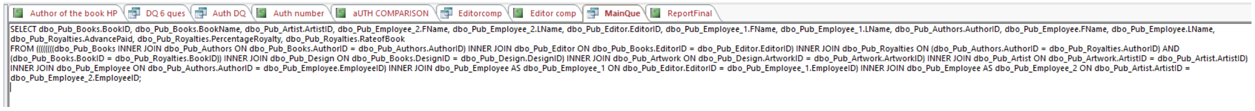


Royalties

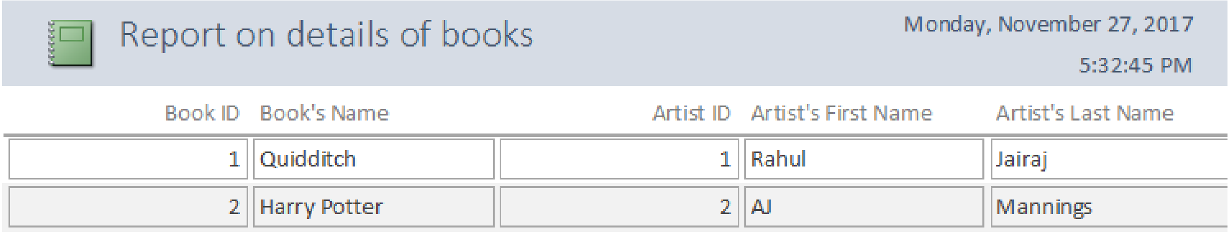
RateID	
BookID	
AdvancePaid	
RateofBook	
PercentageRoyalty	
AuthorID	4 5 6

REPORTS AND QUERIES FOR DATA QUESTIONS IN ACCESS

1. How to view all the details of all books – Book ID, Author, Editor, Royalties etc.?



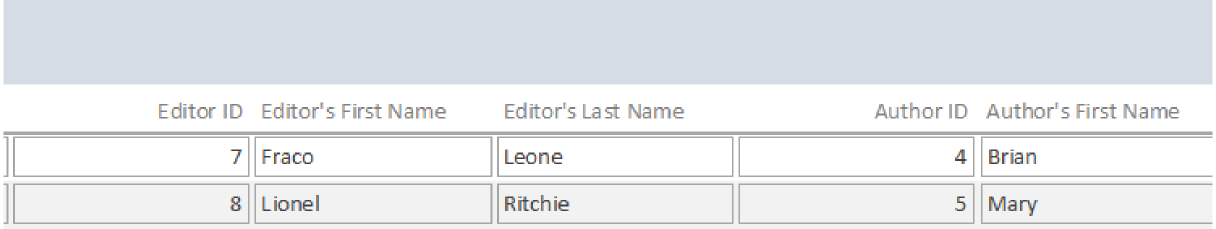
```
SELECT dbo_Pub_Books.BookID, dbo_Pub_Books.BookName, dbo_Pub_Artist.ArtistID, dbo_Pub_Employee_2.FName, dbo_Pub_Employee_2.LName, dbo_Pub_Editor.EditorID, dbo_Pub_Employee_1.FName, dbo_Pub_Employee_1.LName, dbo_Pub_Authors.AuthorID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName,
dbo_Pub_Royalties.AdvancePaid, dbo_Pub_Royalties.PercentageRoyalty, dbo_Pub_Royalties.RateofBook
FROM ((((((((dbo_Pub_Books INNER JOIN dbo_Pub_Authors ON dbo_Pub_Books.AuthorID = dbo_Pub_Authors.AuthorID) INNER JOIN dbo_Pub_Editor ON dbo_Pub_Books.EditorID = dbo_Pub_Editor.EditorID) INNER JOIN dbo_Pub_Royalties ON (dbo_Pub_Authors.AuthorID = dbo_Pub_Royalties.AuthorID) AND
(dbo_Pub_Books.BookID = dbo_Pub_Royalties.BookID)) INNER JOIN dbo_Pub_Design ON dbo_Pub_Books.DesignID = dbo_Pub_Design.DesignID) INNER JOIN dbo_Pub_Artwork ON dbo_Pub_Design.ArtworkID = dbo_Pub_Artwork.ArtworkID) INNER JOIN dbo_Pub_Artist ON dbo_Pub_Artwork.ArtistID = dbo_Pub_Artist.ArtistID)
INNER JOIN dbo_Pub_Employee ON dbo_Pub_Authors.AuthorID = dbo_Pub_Employee.EmployeeID) INNER JOIN dbo_Pub_Employee AS dbo_Pub_Employee_1 ON dbo_Pub_Editor.EditorID = dbo_Pub_Employee_1.EmployeeID) INNER JOIN dbo_Pub_Employee AS dbo_Pub_Employee_2 ON dbo_Pub_Artist.ArtistID =
dbo_Pub_Employee_2.EmployeeID;
```

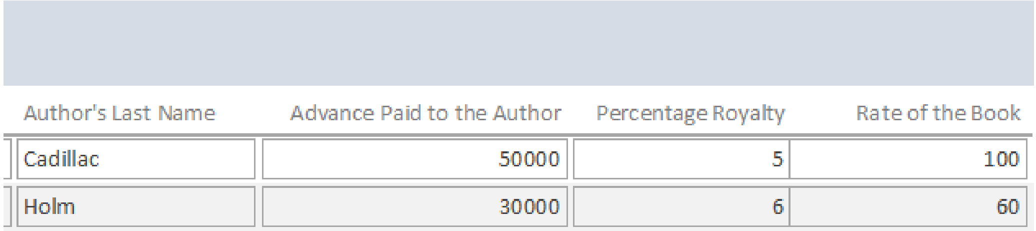

Report on details of books

Monday, November 27, 2017

5:32:45 PM

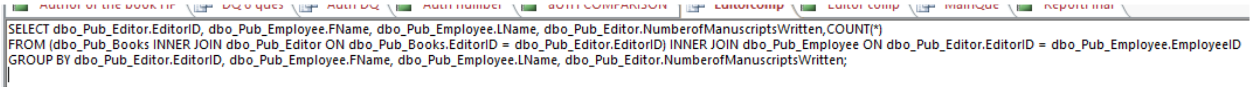
Book ID	Book's Name	Artist ID	Artist's First Name	Artist's Last Name
1	Quidditch	1	Rahul	Jairaj
2	Harry Potter	2	AJ	Mannings



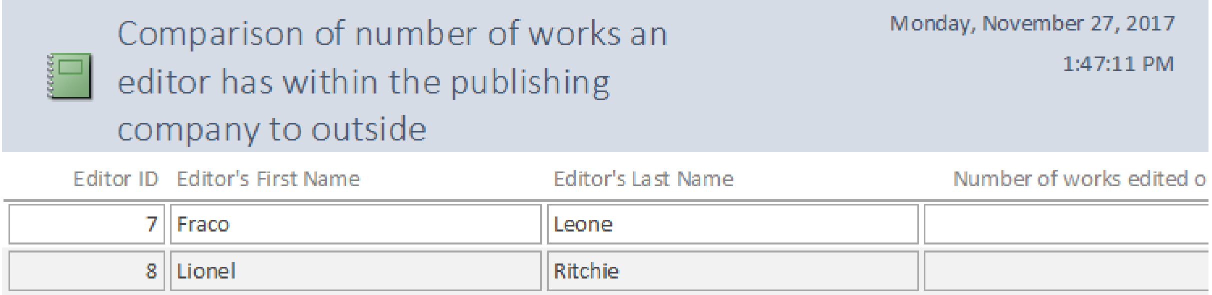


Editor ID	Editor's First Name	Editor's Last Name	Author ID	Author's First Name	Author's Last Name	Advance Paid to the Author	Percentage Royalty	Rate of the Book
7	Fraco	Leone	4	Brian	Cadillac	50000	5	100
8	Lionel	Ritchie	5	Mary	Holm	30000	6	60

2. Compare the number of works an editor has in the publishing company as compared to outside.



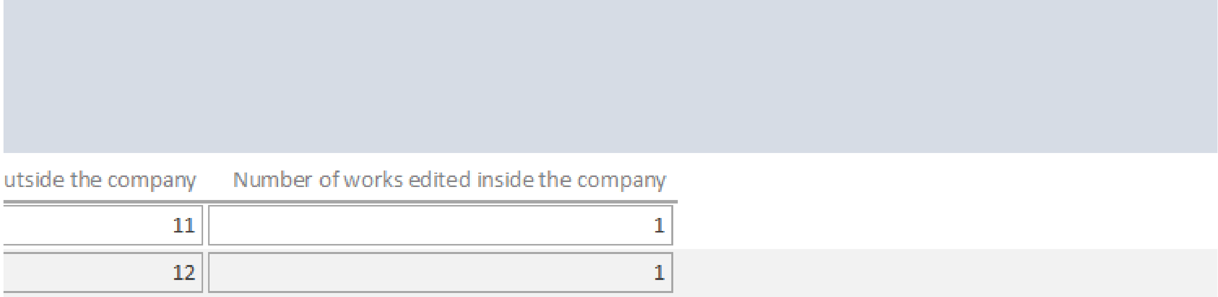
```
SELECT dbo_Pub_Editor.EditorID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName, dbo_Pub_Editor.NumberofManuscriptsWritten,COUNT(*)
FROM (dbo_Pub_Books INNER JOIN dbo_Pub_Editor ON dbo_Pub_Books.EditorID = dbo_Pub_Editor.EditorID) INNER JOIN dbo_Pub_Employee ON dbo_Pub_Editor.EditorID = dbo_Pub_Employee.EmployeeID
GROUP BY dbo_Pub_Editor.EditorID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName, dbo_Pub_Editor.NumberofManuscriptsWritten;
```



Comparison of number of works an editor has within the publishing company to outside

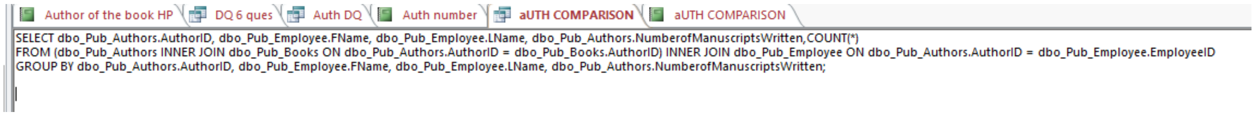
Monday, November 27, 2017

1:47:11 PM

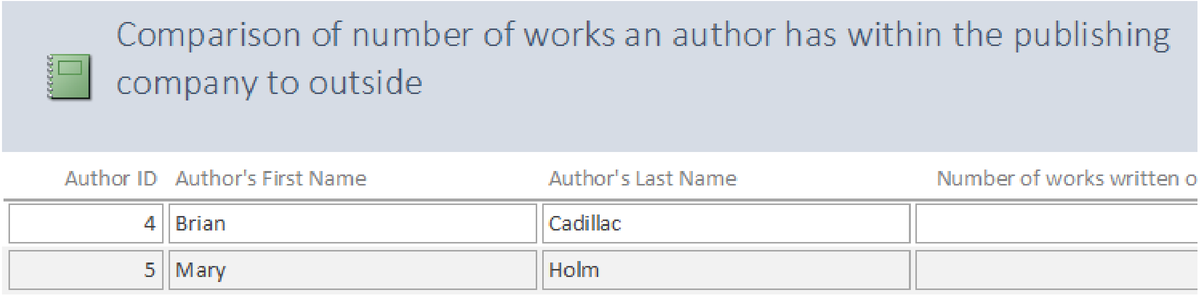


Editor ID	Editor's First Name	Editor's Last Name	Number of works edited outside the company	Number of works edited inside the company
7	Fraco	Leone	11	1
8	Lionel	Ritchie	12	1

3. Compare the number of works an author has in the publishing company as compared to outside.

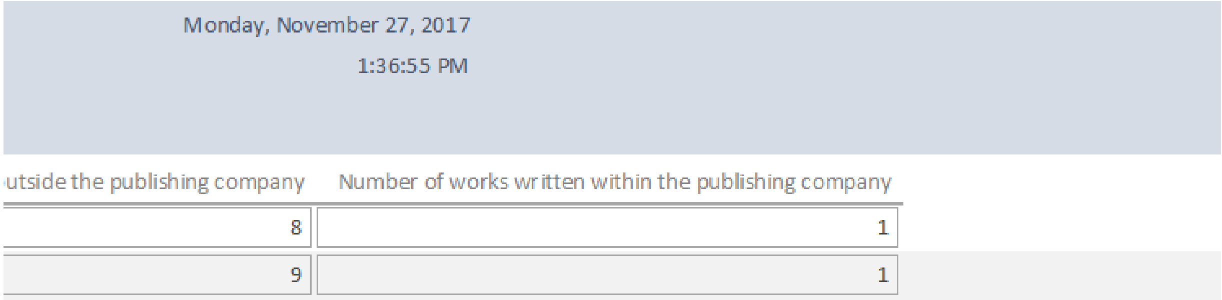


```
SELECT dbo_Pub_Authors.AuthorID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName, dbo_Pub_Authors.NumberofManuscriptsWritten,COUNT(*)
FROM (dbo_Pub_Authors INNER JOIN dbo_Pub_Books ON dbo_Pub_Authors.AuthorID = dbo_Pub_Books.AuthorID) INNER JOIN dbo_Pub_Employee ON dbo_Pub_Authors.AuthorID = dbo_Pub_Employee.EmployeeID
GROUP BY dbo_Pub_Authors.AuthorID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName, dbo_Pub_Authors.NumberofManuscriptsWritten;
```



Comparison of number of works an author has within the publishing company to outside

Author ID	Author's First Name	Author's Last Name	Number of works written o
4	Brian	Cadillac	
5	Mary	Holm	

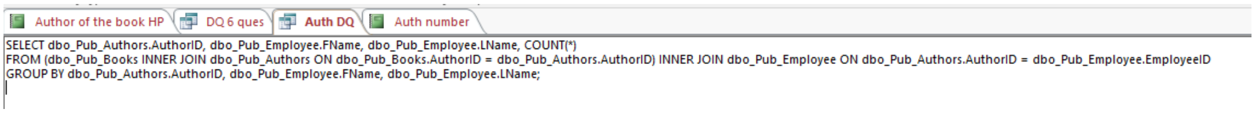


Monday, November 27, 2017

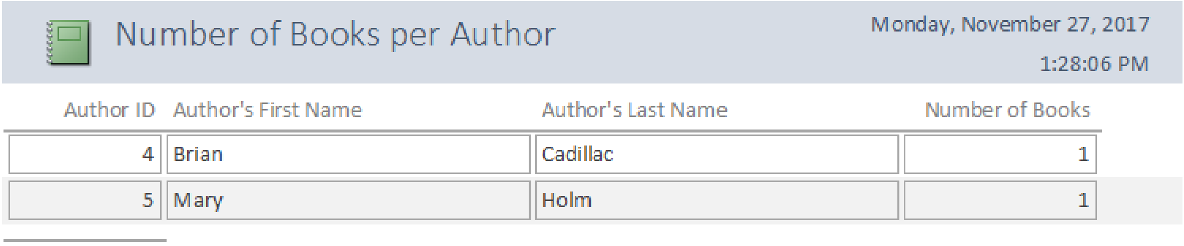
1:36:55 PM

utside the publishing company	Number of works written within the publishing company
8	1
9	1

4. Number of books for each author



```
SELECT dbo_Pub_Authors.AuthorID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName, COUNT(*)
FROM (dbo_Pub_Books INNER JOIN dbo_Pub_Authors ON dbo_Pub_Books.AuthorID = dbo_Pub_Authors.AuthorID) INNER JOIN dbo_Pub_Employee ON dbo_Pub_Authors.AuthorID = dbo_Pub_Employee.EmployeeID
GROUP BY dbo_Pub_Authors.AuthorID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName;
```



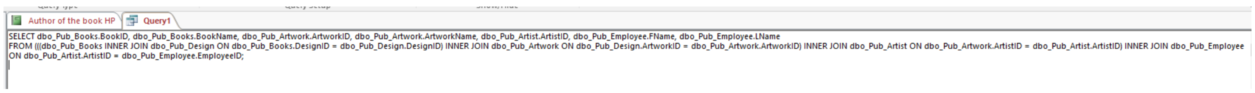
Number of Books per Author

Monday, November 27, 2017

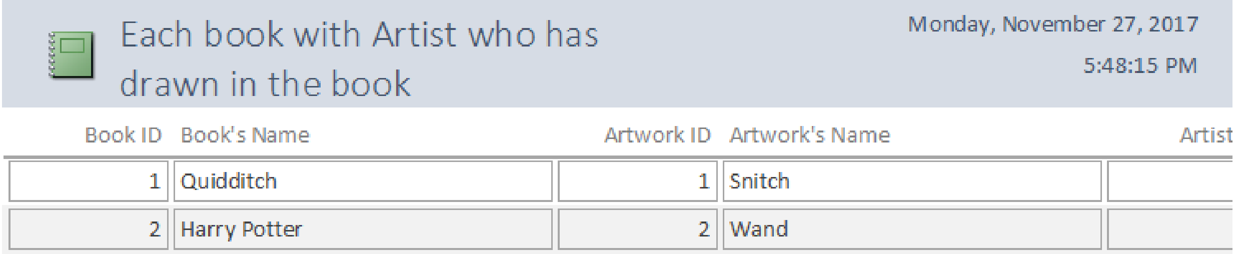
1:28:06 PM

Author ID	Author's First Name	Author's Last Name	Number of Books
4	Brian	Cadillac	1
5	Mary	Holm	1

5. Which artist has drawn in each book?



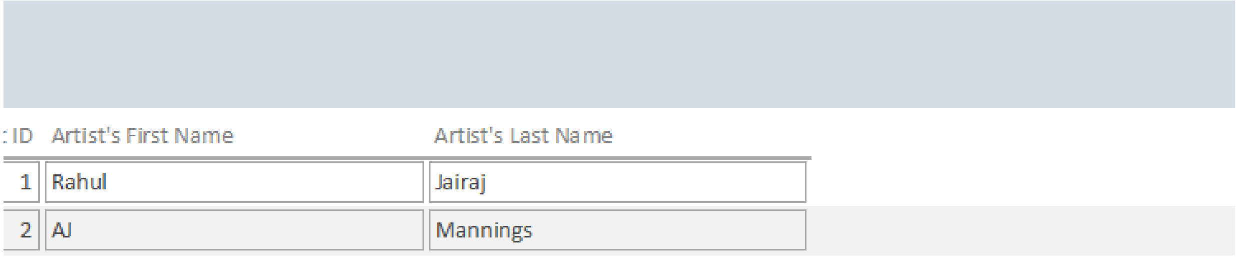
```
SELECT dbo_Pub_Books.BookID, dbo_Pub_Books.BookName, dbo_Pub_Artwork.ArtworkID, dbo_Pub_Artwork.ArtworkName, dbo_Pub_Artist.ArtistID, dbo_Pub_Employee.FName, dbo_Pub_Employee.LName
FROM (((dbo_Pub_Books INNER JOIN dbo_Pub_Design ON dbo_Pub_Books.DesignID = dbo_Pub_Design.DesignID) INNER JOIN dbo_Pub_Artwork ON dbo_Pub_Design.ArtworkID = dbo_Pub_Artwork.ArtworkID) INNER JOIN dbo_Pub_Artist ON dbo_Pub_Artwork.ArtistID = dbo_Pub_Artist.ArtistID) INNER JOIN dbo_Pub_Employee
ON dbo_Pub_Artist.ArtistID = dbo_Pub_Employee.EmployeeID;
```



Each book with Artist who has drawn in the book

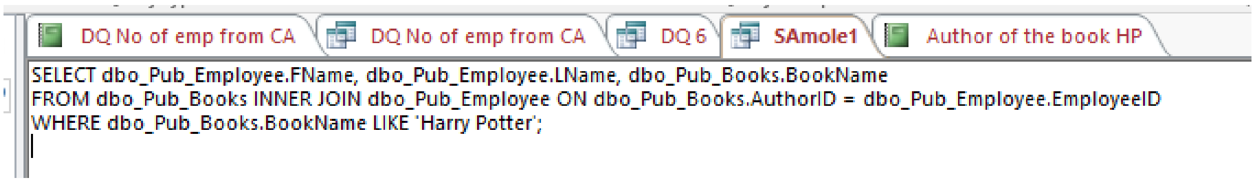
Monday, November 27, 2017
5:48:15 PM

Book ID	Book's Name	Artwork ID	Artwork's Name	Artist
1	Quidditch	1	Snitch	
2	Harry Potter	2	Wand	

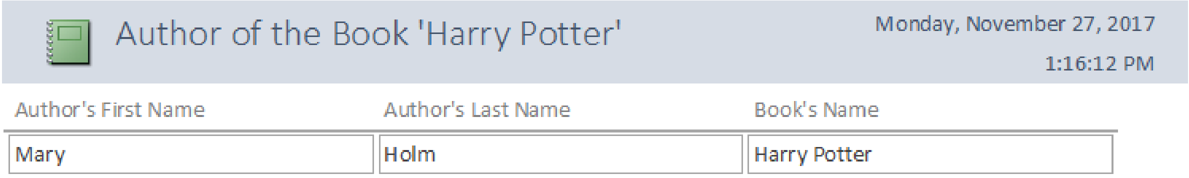


: ID	Artist's First Name	Artist's Last Name
1	Rahul	Jairaj
2	AJ	Mannings

6. Who is the author of “Harry Potter”?



```
SELECT dbo_Pub_Employee.FName, dbo_Pub_Employee.LName, dbo_Pub_Books.BookName
FROM dbo_Pub_Books INNER JOIN dbo_Pub_Employee ON dbo_Pub_Books.AuthorID = dbo_Pub_Employee.EmployeeID
WHERE dbo_Pub_Books.BookName LIKE 'Harry Potter';
```

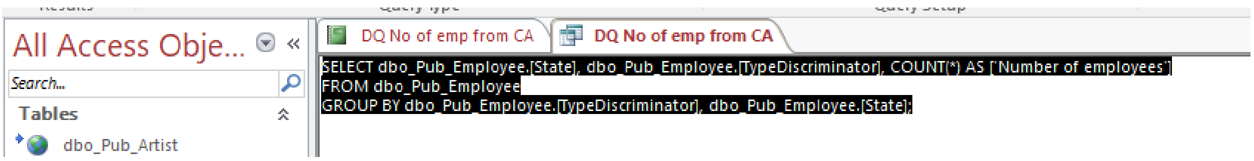


Author of the Book 'Harry Potter'

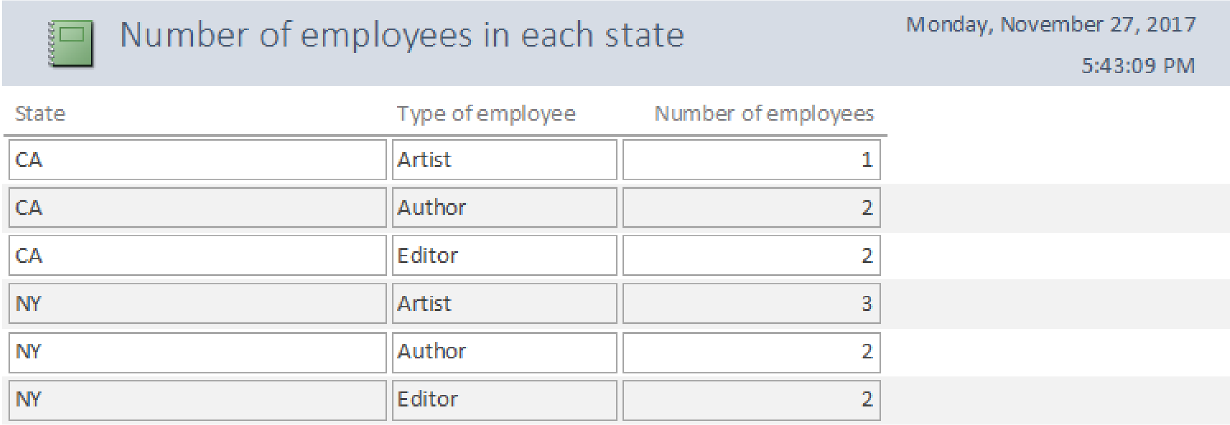
Monday, November 27, 2017
1:16:12 PM

Author's First Name	Author's Last Name	Book's Name
Mary	Holm	Harry Potter

7. How many of each – authors, editors and artists are from each state?



```
SELECT dbo_Pub_Employee.[State], dbo_Pub_Employee.[TypeDiscriminator], COUNT(*) AS ['Number of employees']
FROM dbo_Pub_Employee
GROUP BY dbo_Pub_Employee.[TypeDiscriminator], dbo_Pub_Employee.[State];
```



Number of employees in each state

Monday, November 27, 2017

5:43:09 PM

State	Type of employee	Number of employees
CA	Artist	1
CA	Author	2
CA	Editor	2
NY	Artist	3
NY	Author	2
NY	Editor	2