

IMAT1215 Database Management & Reporting Building Database Application

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Introduction

DMU Box Scheme Database Application prototype

The DMU Box Scheme Database Application prototype was successfully developed using MS Visual Studio and the guidance and instructions in the handout supplied to me by my tutor. I would like to mention that all images were downloaded from the internet and although I may have edited some of the images, I am not responsible for creating them. I have chosen the images to add a sparkle to the design and for a bit of fun.

The System was then tested using extra data that I was supplied with. During the testing process extra data was loaded into a Stored Procedure, which was saved to the database and then executed.

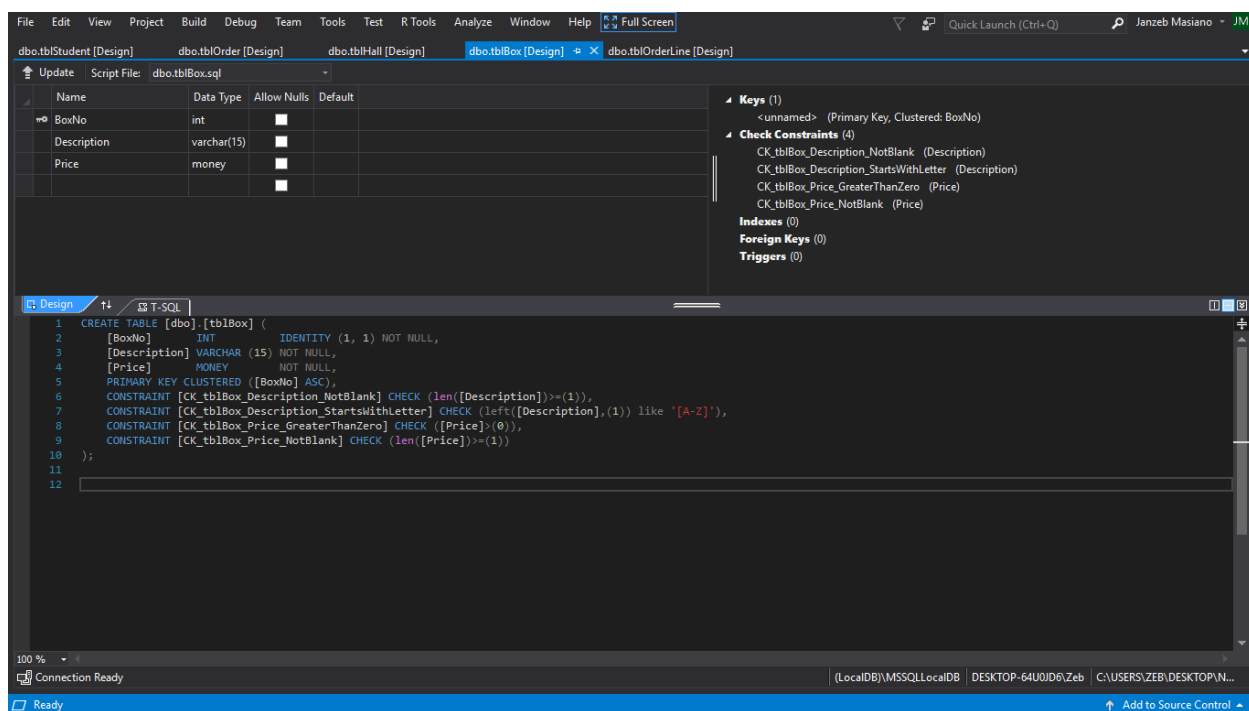
The following are screenshots of the results of your prototype system. These include the table definitions, table data, relationships diagram, forms and reports.

Zip File

To accompany this document there is also a zipped copy of the MS Visual Studio folders and files. The name of the zipped up file is P2430708-JMasiano-DMUBox2018. Furthermore the work can be demonstrated on request.

Table Definitions and Table Data

tblBox



The screenshot displays the SQL Server Enterprise Designer interface for the 'tblBox' table. The table structure is as follows:

Name	Data Type	Allow Nulls	Default
BoxNo	int	NO	
Description	varchar(15)	NO	
Price	money	NO	

Constraints and Keys:

- Keys (1):** <unnamed> (Primary Key, Clustered: BoxNo)
- Check Constraints (4):**
 - CK_tblBox_Description_NotBlank (Description)
 - CK_tblBox_Description_StartsWithLetter (Description)
 - CK_tblBox_Price_GreaterThanZero (Price)
 - CK_tblBox_Price_NotBlank (Price)
- Indexes (0)**
- Foreign Keys (0)**
- Triggers (0)**

The T-SQL script in the bottom pane is:

```

1 CREATE TABLE [dbo].[tblBox] (
2     [BoxNo] INT IDENTITY (1, 1) NOT NULL,
3     [Description] VARCHAR (15) NOT NULL,
4     [Price] MONEY NOT NULL,
5     PRIMARY KEY CLUSTERED ([BoxNo] ASC),
6     CONSTRAINT [CK_tblBox_Description_NotBlank] CHECK (len([Description])>=1),
7     CONSTRAINT [CK_tblBox_Description_StartsWithLetter] CHECK (left([Description],1) like '[A-Z]'),
8     CONSTRAINT [CK_tblBox_Price_GreaterThanZero] CHECK ([Price]>0),
9     CONSTRAINT [CK_tblBox_Price_NotBlank] CHECK (len([Price])>=1)
10 );
11
12

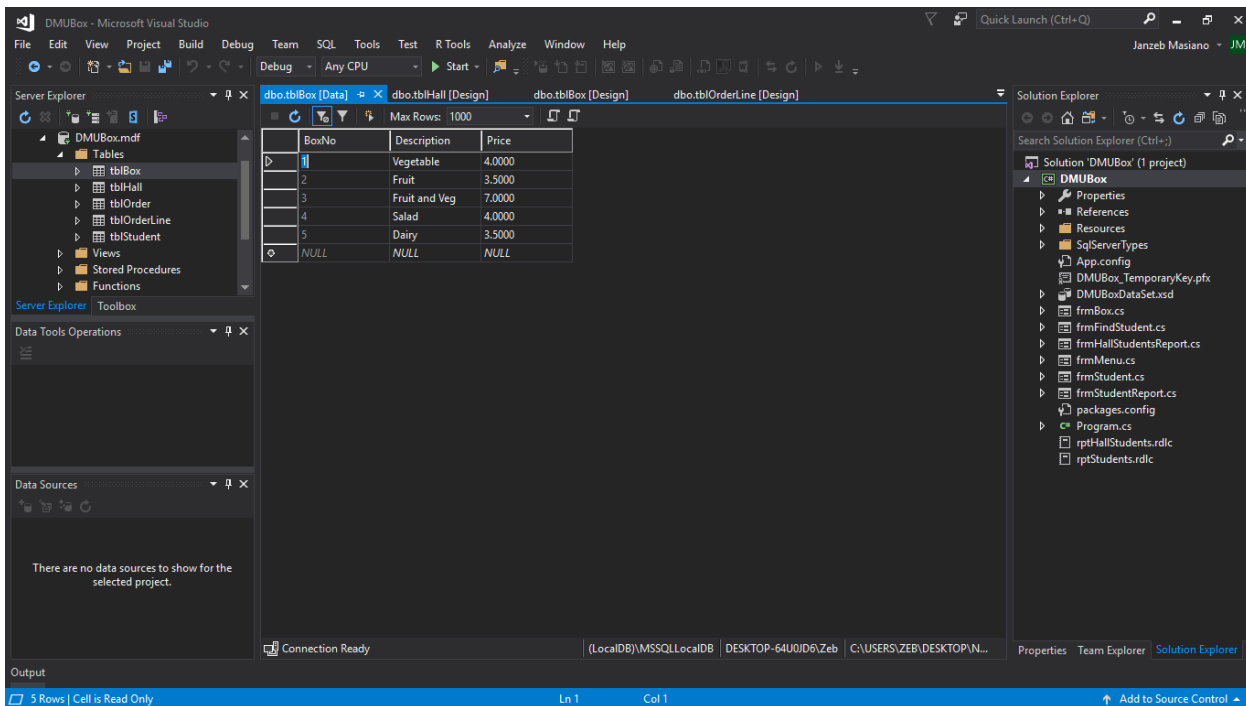
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IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

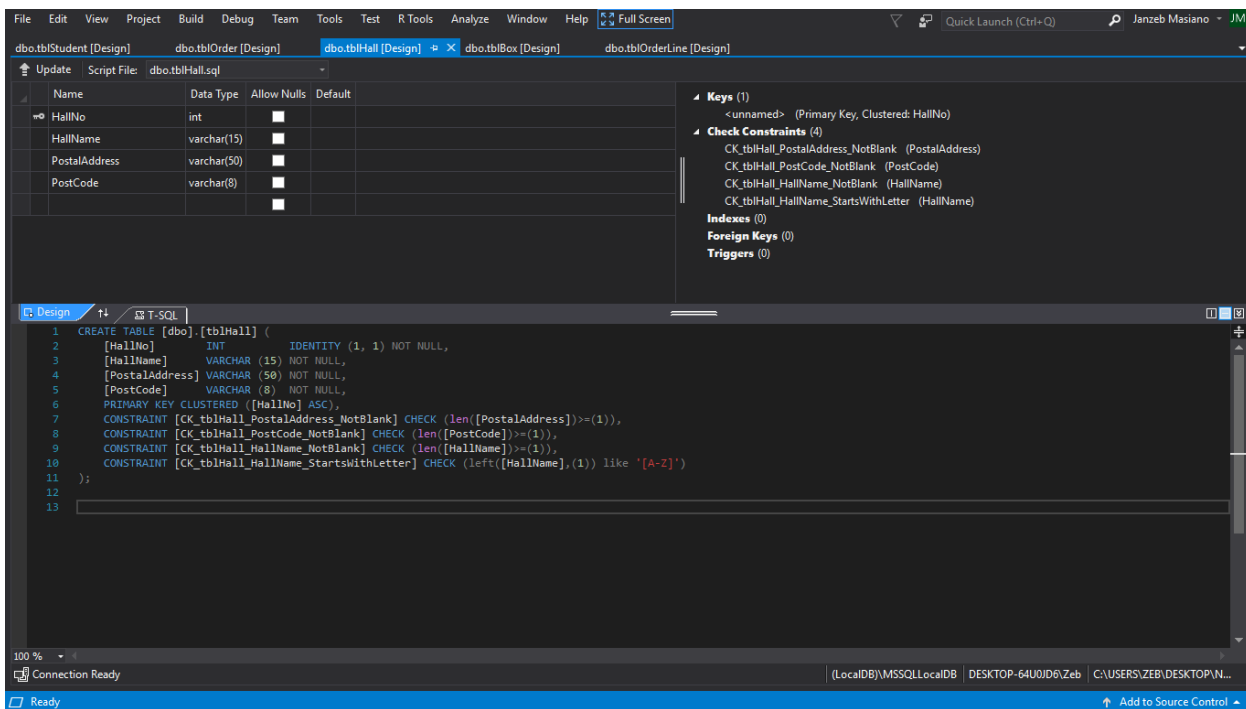
Monday, 29 October 2018

Student Number: P2430705



BoxNo	Description	Price
1	Vegetable	4.0000
2	Fruit	3.5000
3	Fruit and Veg	7.0000
4	Salad	4.0000
5	Dairy	3.5000
NULL	NULL	NULL

tblHall



Name	Data Type	Allow Nulls	Default
HallNo	int		
HallName	varchar(15)		
PostalAddress	varchar(50)		
PostCode	varchar(8)		

```

1 CREATE TABLE [dbo].[tblHall] (
2     [HallNo] INT IDENTITY (1, 1) NOT NULL,
3     [HallName] VARCHAR (15) NOT NULL,
4     [PostalAddress] VARCHAR (50) NOT NULL,
5     [PostCode] VARCHAR (8) NOT NULL,
6     PRIMARY KEY CLUSTERED ([HallNo] ASC),
7     CONSTRAINT [CK_tblHall_PostalAddress_NotBlank] CHECK (len([PostalAddress])>=1),
8     CONSTRAINT [CK_tblHall_PostCode_NotBlank] CHECK (len([PostCode])>=1),
9     CONSTRAINT [CK_tblHall_HallName_NotBlank] CHECK (len([HallName])>=1),
10    CONSTRAINT [CK_tblHall_HallName_StartsWithLetter] CHECK (left([HallName],1) like '[A-Z]')
11 );
12
13

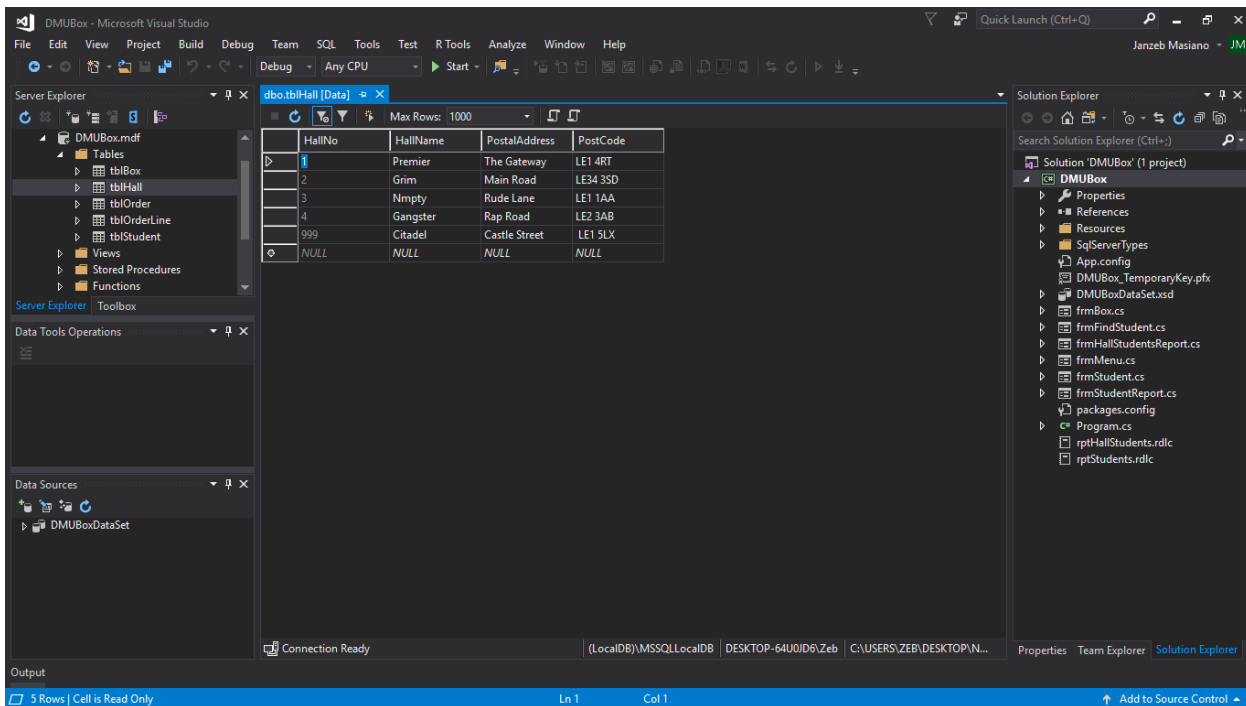
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IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

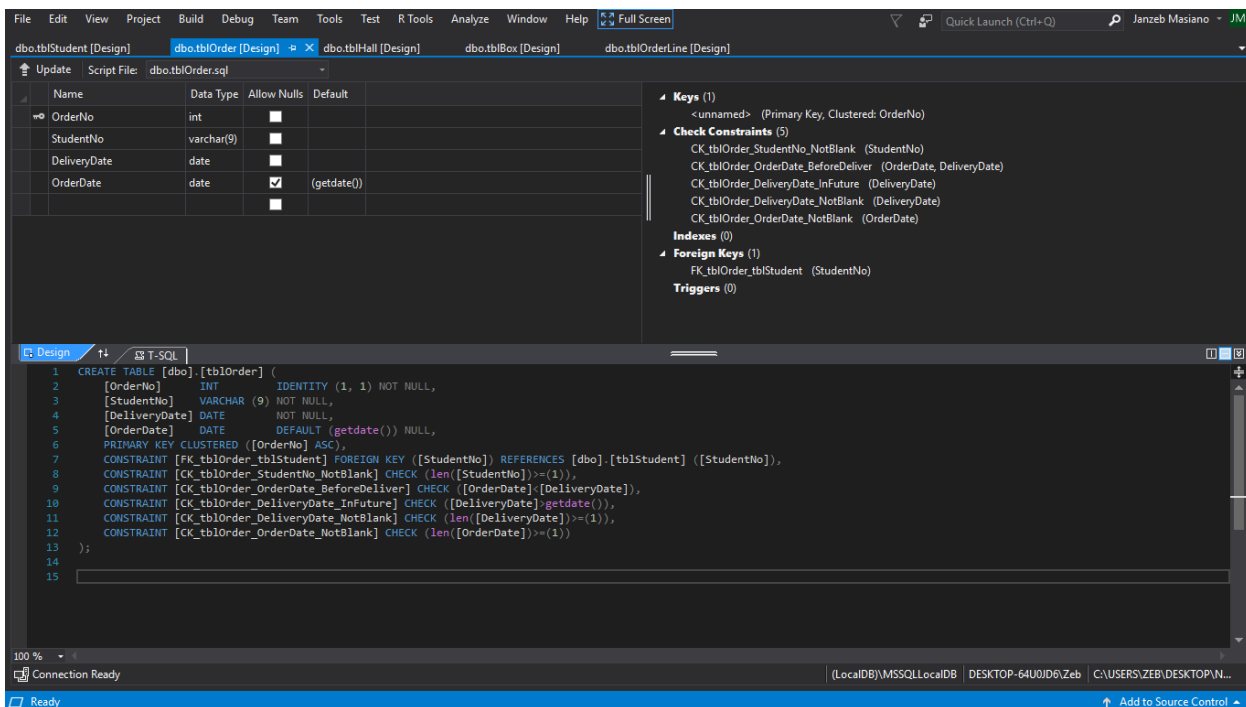
Monday, 29 October 2018

Student Number: P2430705



HallNo	HallName	PostalAddress	PostCode
1	Premier	The Gateway	LE1 4RT
2	Grim	Main Road	LE34 3SD
3	Nmpty	Rude Lane	LE1 1AA
4	Gangster	Rap Road	LE2 3AB
999	Citadel	Castle Street	LE1 5LX
NULL	NULL	NULL	NULL

tblOrder



Name	Data Type	Allow Nulls	Default
OrderNo	int		
StudentNo	varchar(9)		
DeliveryDate	date		
OrderDate	date		(getdate())

```

1 CREATE TABLE [dbo].[tblOrder] (
2     [OrderNo] INT IDENTITY (1, 1) NOT NULL,
3     [StudentNo] VARCHAR (9) NOT NULL,
4     [DeliveryDate] DATE NOT NULL,
5     [OrderDate] DATE DEFAULT (getdate()) NULL,
6     PRIMARY KEY CLUSTERED ([OrderNo] ASC),
7     CONSTRAINT [FK_tblOrder_tblStudent] FOREIGN KEY ([StudentNo]) REFERENCES [dbo].[tblStudent] ([StudentNo]),
8     CONSTRAINT [CK_tblOrder_StudentNo_NotBlank] CHECK (len([StudentNo])>=1),
9     CONSTRAINT [CK_tblOrder_OrderDate_BeforeDeliver] CHECK ([OrderDate]<[DeliveryDate]),
10    CONSTRAINT [CK_tblOrder_DeliveryDate_InFuture] CHECK ([DeliveryDate]>getdate()),
11    CONSTRAINT [CK_tblOrder_DeliveryDate_NotBlank] CHECK (len([DeliveryDate])>=1),
12    CONSTRAINT [CK_tblOrder_OrderDate_NotBlank] CHECK (len([OrderDate])>=1)
13 );
14
15

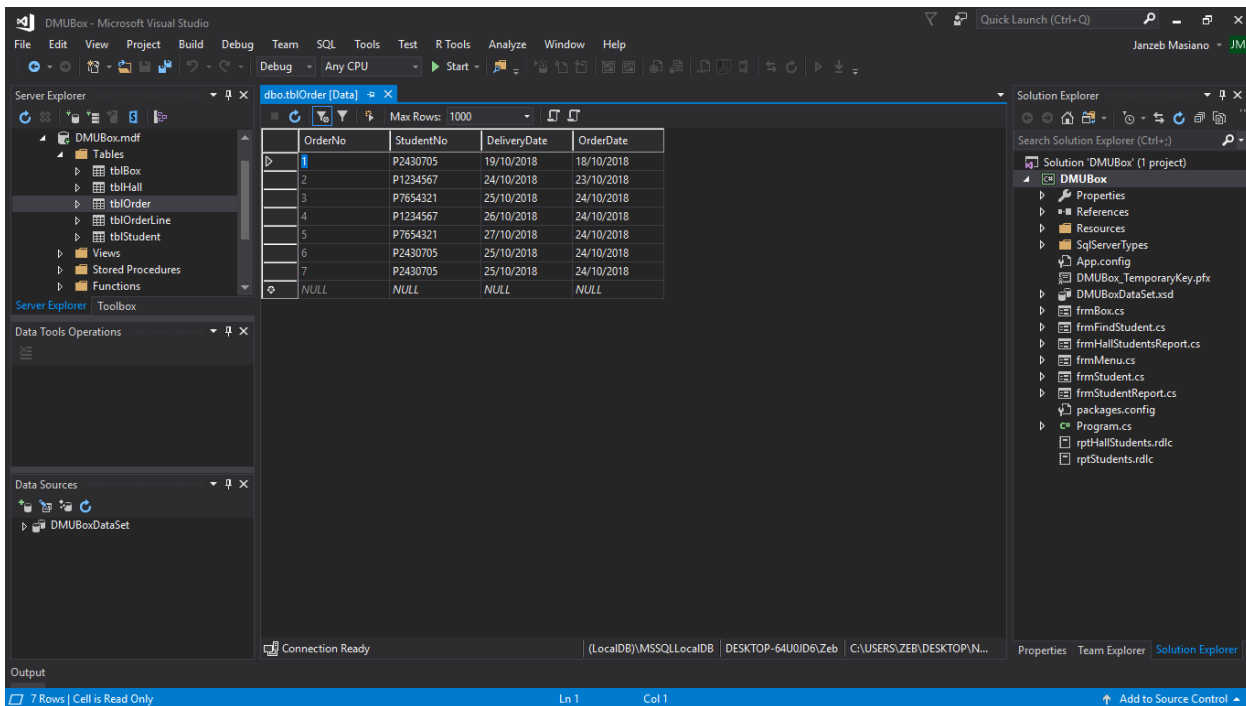
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IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

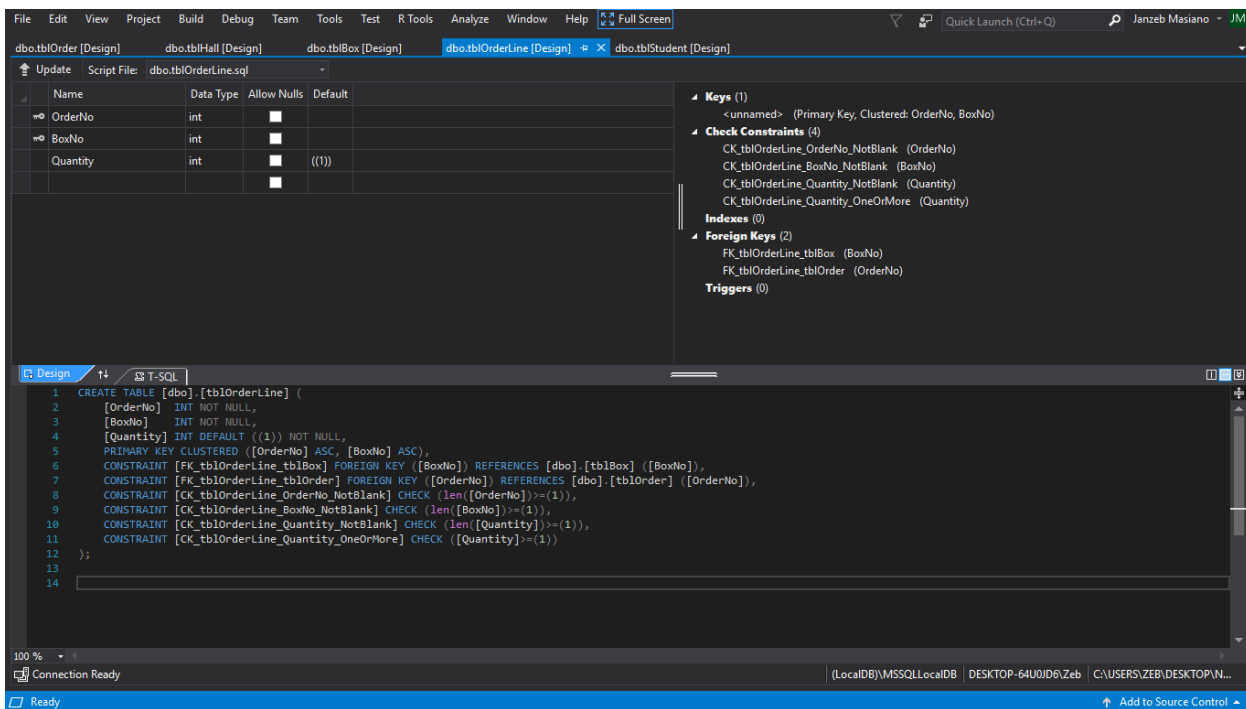
Monday, 29 October 2018

Student Number: P2430705



OrderNo	StudentNo	DeliveryDate	OrderDate
1	P2430705	19/10/2018	18/10/2018
2	P1234567	24/10/2018	23/10/2018
3	P7654321	25/10/2018	24/10/2018
4	P1234567	26/10/2018	24/10/2018
5	P7654321	27/10/2018	24/10/2018
6	P2430705	25/10/2018	24/10/2018
7	P2430705	25/10/2018	24/10/2018
NULL	NULL	NULL	NULL

tblOrderLine



Name	Data Type	Allow Nulls	Default
OrderNo	int	■	
BoxNo	int	■	
Quantity	int	■	((1))

```

1 CREATE TABLE [dbo].[tblOrderLine] (
2     [OrderNo] INT NOT NULL,
3     [BoxNo] INT NOT NULL,
4     [Quantity] INT DEFAULT ((1)) NOT NULL,
5     PRIMARY KEY CLUSTERED ([OrderNo] ASC, [BoxNo] ASC),
6     CONSTRAINT [FK_tblOrderLine_tblBox] FOREIGN KEY ([BoxNo]) REFERENCES [dbo].[tblBox] ([BoxNo]),
7     CONSTRAINT [FK_tblOrderLine_tblOrder] FOREIGN KEY ([OrderNo]) REFERENCES [dbo].[tblOrder] ([OrderNo]),
8     CONSTRAINT [CK_tblOrderLine_OrderNo_NotBlank] CHECK (len([OrderNo])>=(1)),
9     CONSTRAINT [CK_tblOrderLine_BoxNo_NotBlank] CHECK (len([BoxNo])>=(1)),
10    CONSTRAINT [CK_tblOrderLine_Quantity_NotBlank] CHECK (len([Quantity])>=(1)),
11    CONSTRAINT [CK_tblOrderLine_Quantity_OneOrMore] CHECK ([Quantity]>=(1))
12 );
13
14

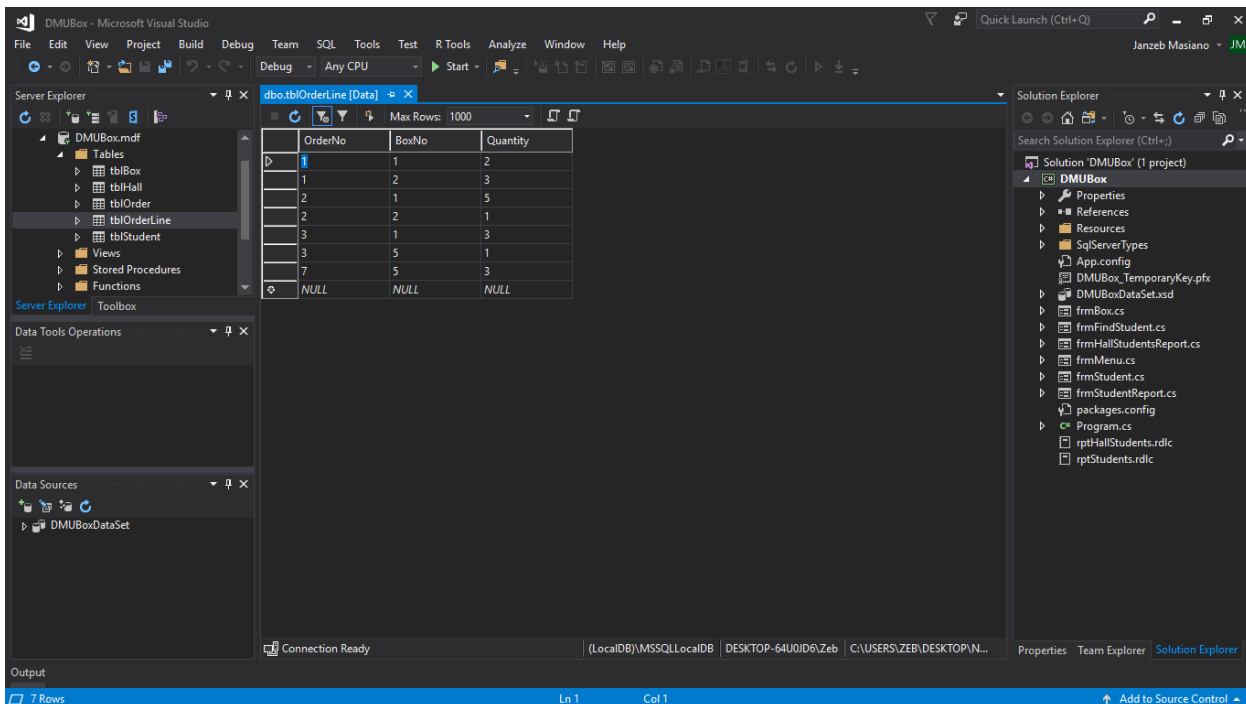
```

IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

Student Number: P2430705



DMUBox - Microsoft Visual Studio

File Edit View Project Build Debug Team SQL Tools Test R Tools Analyze Window Help

Server Explorer

- DMUBox.mdf
 - Tables
 - tblBox
 - tblHall
 - tblOrder
 - tblOrderLine
 - tblStudent
 - Views
 - Stored Procedures
 - Functions

Data Tools Operations

Data Sources

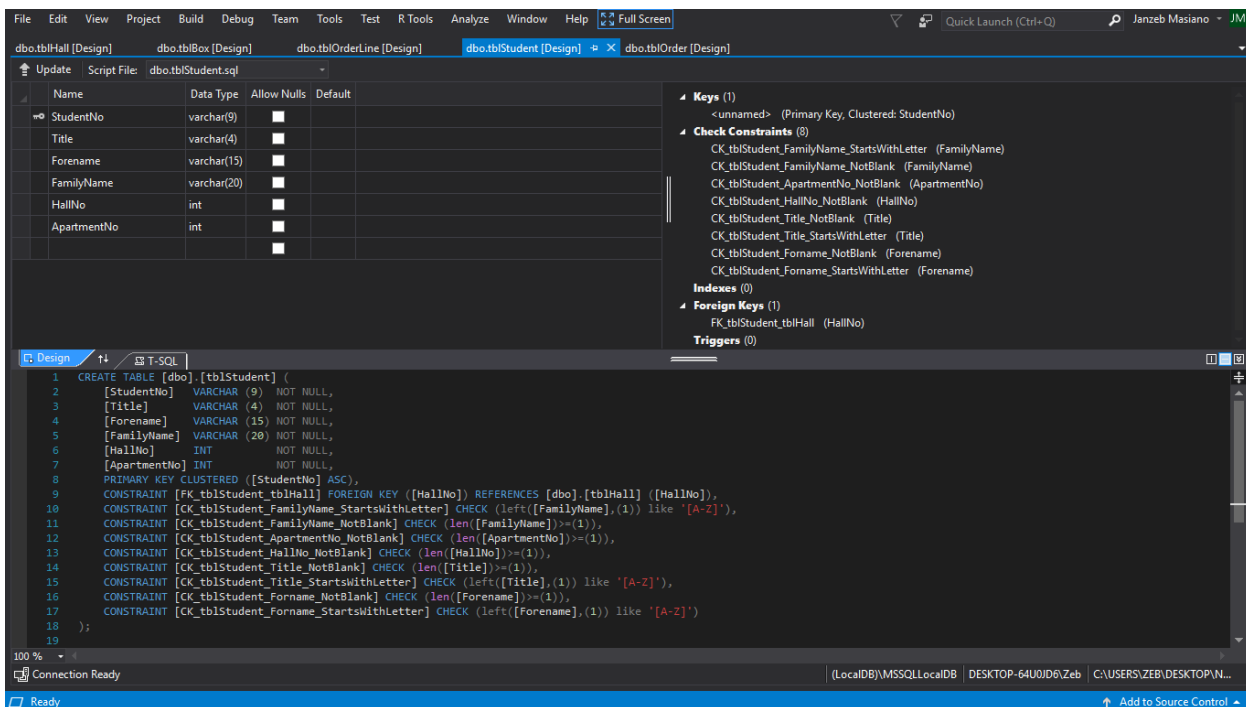
DMUBoxDataSet

Connection Ready (LocalDB)\MSSQLLocalDB DESKTOP-64U0JD6\Zeb C:\USERS\ZEB\DESKTOP\N...

Output

7 Rows Ln 1 Col 1 Add to Source Control

tblStudent



File Edit View Project Build Debug Team Tools Test R Tools Analyze Window Help Full Screen

dbo.tblHall [Design] dbo.tblBox [Design] dbo.tblOrderLine [Design] **dbo.tblStudent [Design]** dbo.tblOrder [Design]

Update Script File: dbo.tblStudent.sql

Name	Data Type	Allow Nulls	Default
StudentNo	varchar(9)		
Title	varchar(4)		
Forename	varchar(15)		
FamilyName	varchar(20)		
HallNo	int		
ApartmentNo	int		

Keys (1)

- <unnamed> (Primary Key, Clustered: StudentNo)

Check Constraints (8)

- CK_tblStudent_FamilyName_StartsWithLetter (FamilyName)
- CK_tblStudent_FamilyName_NotBlank (FamilyName)
- CK_tblStudent_ApartmentNo_NotBlank (ApartmentNo)
- CK_tblStudent_HallNo_NotBlank (HallNo)
- CK_tblStudent_Title_NotBlank (Title)
- CK_tblStudent_Title_StartsWithLetter (Title)
- CK_tblStudent_Forename_NotBlank (Forename)
- CK_tblStudent_Forename_StartsWithLetter (Forename)

Indexes (0)

Foreign Keys (1)

- FK_tblStudent_tblHall (HallNo)

Triggers (0)

Design

```

1 CREATE TABLE [dbo].[tblStudent] (
2     [StudentNo] VARCHAR (9) NOT NULL,
3     [Title] VARCHAR (4) NOT NULL,
4     [Forename] VARCHAR (15) NOT NULL,
5     [FamilyName] VARCHAR (20) NOT NULL,
6     [HallNo] INT NOT NULL,
7     [ApartmentNo] INT NOT NULL,
8     PRIMARY KEY CLUSTERED ([StudentNo] ASC),
9     CONSTRAINT [FK_tblStudent_tblHall] FOREIGN KEY ([HallNo]) REFERENCES [dbo].[tblHall] ([HallNo]),
10    CONSTRAINT [CK_tblStudent_FamilyName_StartsWithLetter] CHECK (left([FamilyName],1) like '[A-Z]'),
11    CONSTRAINT [CK_tblStudent_FamilyName_NotBlank] CHECK (len([FamilyName])>=1),
12    CONSTRAINT [CK_tblStudent_ApartmentNo_NotBlank] CHECK (len([ApartmentNo])>=1),
13    CONSTRAINT [CK_tblStudent_HallNo_NotBlank] CHECK (len([HallNo])>=1),
14    CONSTRAINT [CK_tblStudent_Title_NotBlank] CHECK (len([Title])>=1),
15    CONSTRAINT [CK_tblStudent_Title_StartsWithLetter] CHECK (left([Title],1) like '[A-Z]'),
16    CONSTRAINT [CK_tblStudent_Forename_NotBlank] CHECK (len([Forename])>=1),
17    CONSTRAINT [CK_tblStudent_Forename_StartsWithLetter] CHECK (left([Forename],1) like '[A-Z]')
18 );
19

```

100 % Connection Ready (LocalDB)\MSSQLLocalDB DESKTOP-64U0JD6\Zeb C:\USERS\ZEB\DESKTOP\N...

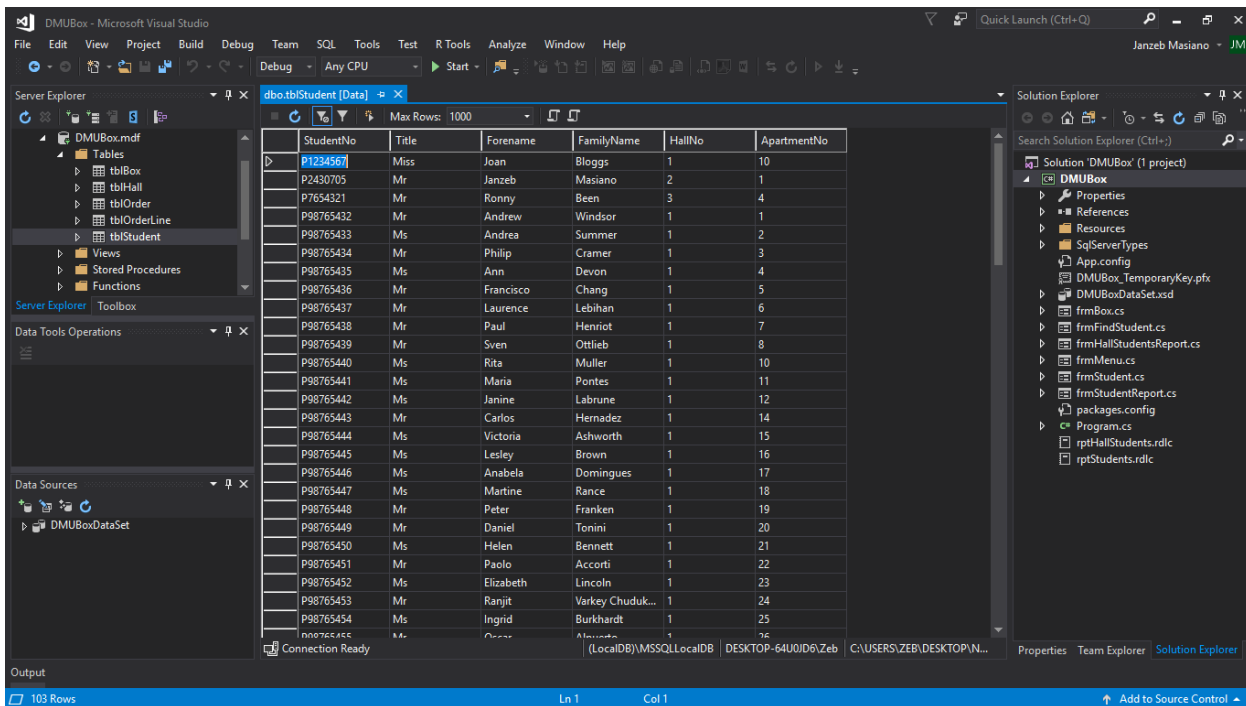
Ready Add to Source Control

IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

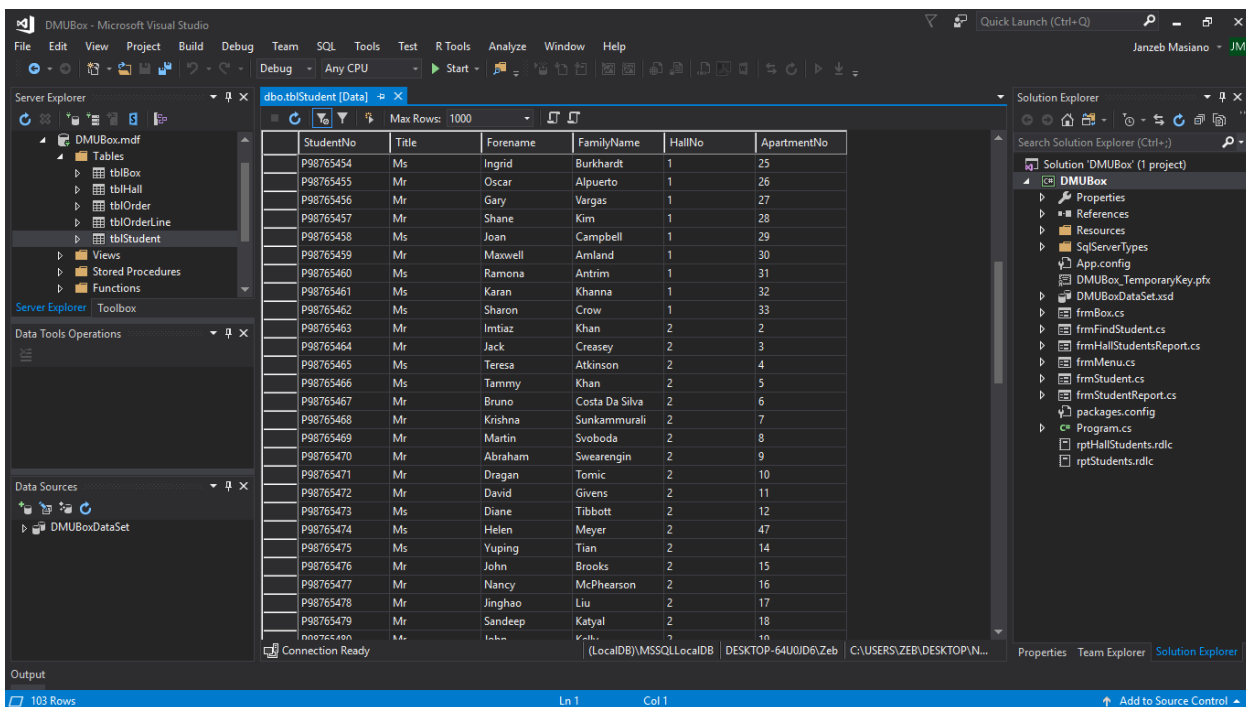
Monday, 29 October 2018

Student Number: P2430705



StudentNo	Title	Forename	FamilyName	HallNo	ApartmentNo
P1224567	Miss	Joan	Bloggs	1	10
P2430705	Mr	Janzeb	Masiano	2	1
P7654321	Mr	Ronny	Been	3	4
P98765432	Mr	Andrew	Windsor	1	1
P98765433	Ms	Andrea	Summer	1	2
P98765434	Mr	Philip	Cramer	1	3
P98765435	Ms	Ann	Devon	1	4
P98765436	Mr	Francisco	Chang	1	5
P98765437	Mr	Laurence	Lebihan	1	6
P98765438	Mr	Paul	Henriot	1	7
P98765439	Mr	Sven	Ottlieb	1	8
P98765440	Ms	Rita	Muller	1	10
P98765441	Ms	Maria	Pontes	1	11
P98765442	Ms	Janine	Labruno	1	12
P98765443	Mr	Carlos	Hernandez	1	14
P98765444	Ms	Victoria	Ashworth	1	15
P98765445	Ms	Lesley	Brown	1	16
P98765446	Ms	Anabela	Domingues	1	17
P98765447	Ms	Martine	Rance	1	18
P98765448	Mr	Peter	Franken	1	19
P98765449	Mr	Daniel	Tonini	1	20
P98765450	Ms	Helen	Bennett	1	21
P98765451	Mr	Paolo	Accorti	1	22
P98765452	Ms	Elizabeth	Lincoln	1	23
P98765453	Mr	Ranjit	Varkey Chuduk...	1	24
P98765454	Ms	Ingrid	Burkhardt	1	25

tblStudent table data 2nd part...



StudentNo	Title	Forename	FamilyName	HallNo	ApartmentNo
P98765454	Ms	Ingrid	Burkhardt	1	25
P98765455	Mr	Oscar	Alpuerto	1	26
P98765456	Mr	Gary	Vargas	1	27
P98765457	Mr	Shane	Kim	1	28
P98765458	Ms	Joan	Campbell	1	29
P98765459	Mr	Maxwell	Amiland	1	30
P98765460	Ms	Ramona	Antrim	1	31
P98765461	Ms	Karan	Khanna	1	32
P98765462	Ms	Sharon	Crow	1	33
P98765463	Mr	Imtiaz	Khan	2	2
P98765464	Mr	Jack	Creasey	2	3
P98765465	Ms	Teresa	Atkinson	2	4
P98765466	Ms	Tammy	Khan	2	5
P98765467	Mr	Bruno	Costa Da Silva	2	6
P98765468	Mr	Krishna	Sunkammurali	2	7
P98765469	Mr	Martin	Svoboda	2	8
P98765470	Mr	Abraham	Swearengin	2	9
P98765471	Mr	Dragan	Tomic	2	10
P98765472	Mr	David	Givens	2	11
P98765473	Ms	Diane	Tibbott	2	12
P98765474	Ms	Helen	Meyer	2	47
P98765475	Ms	Yuping	Tian	2	14
P98765476	Mr	John	Brooks	2	15
P98765477	Mr	Nancy	McPhearson	2	16
P98765478	Mr	Jinghao	Liu	2	17
P98765479	Mr	Sandeep	Katyal	2	18

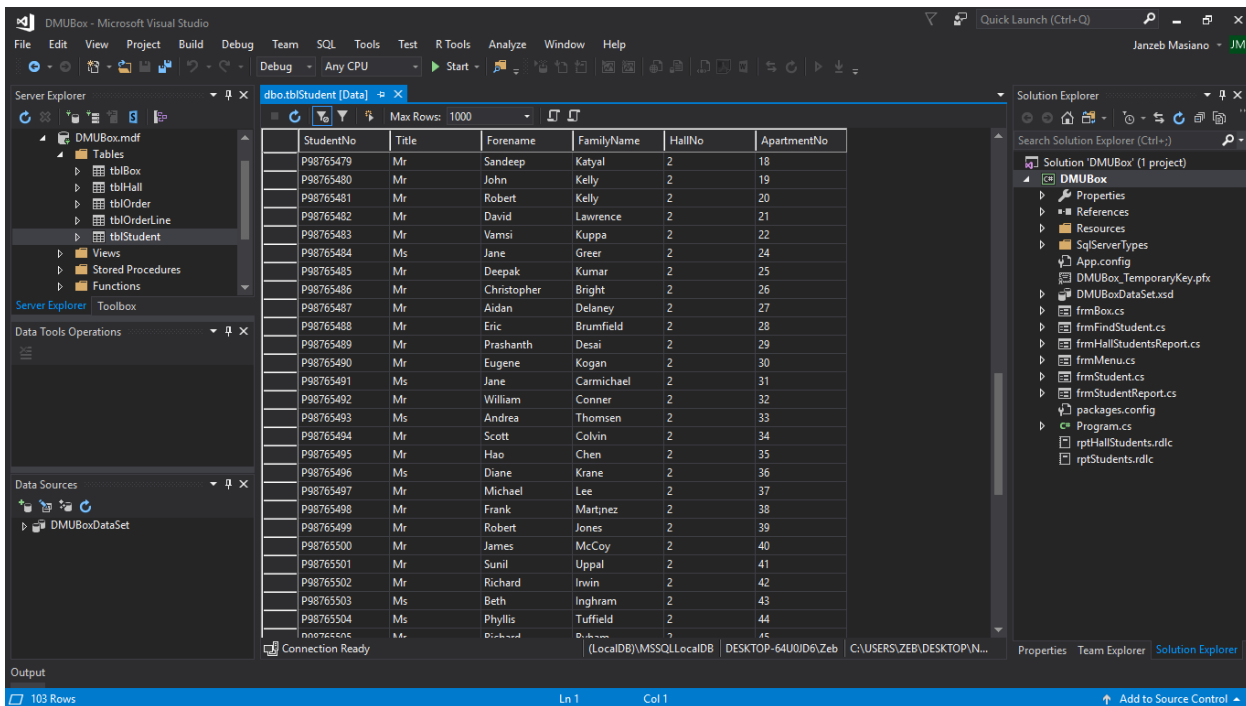
IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

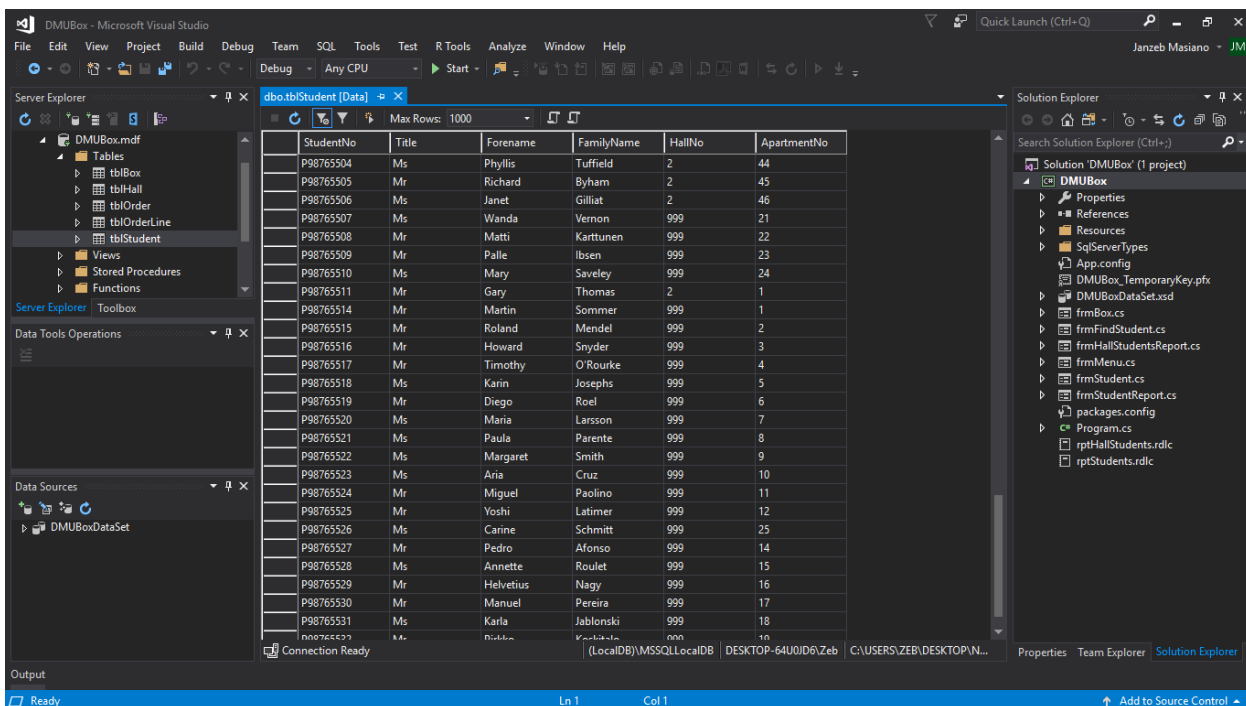
Student Number: P2430705

tblStudent table data 3rd part...



StudentNo	Title	Forename	FamilyName	HallNo	ApartmentNo
P98765479	Mr	Sandeep	Katyal	2	18
P98765480	Mr	John	Kelly	2	19
P98765481	Mr	Robert	Kelly	2	20
P98765482	Mr	David	Lawrence	2	21
P98765483	Mr	Vamsi	Kuppa	2	22
P98765484	Ms	Jane	Greer	2	24
P98765485	Mr	Deepak	Kumar	2	25
P98765486	Mr	Christopher	Bright	2	26
P98765487	Mr	Aidan	Delaney	2	27
P98765488	Mr	Eric	Brumfield	2	28
P98765489	Mr	Prashanth	Desai	2	29
P98765490	Mr	Eugene	Kogan	2	30
P98765491	Ms	Jane	Carmichael	2	31
P98765492	Mr	William	Conner	2	32
P98765493	Ms	Andrea	Thomsen	2	33
P98765494	Mr	Scott	Colvin	2	34
P98765495	Mr	Hao	Chen	2	35
P98765496	Ms	Diane	Krane	2	36
P98765497	Mr	Michael	Lee	2	37
P98765498	Mr	Frank	Martinez	2	38
P98765499	Mr	Robert	Jones	2	39
P98765500	Mr	James	McCoy	2	40
P98765501	Mr	Sunil	Uppal	2	41
P98765502	Mr	Richard	Irwin	2	42
P98765503	Ms	Beth	Inghram	2	43
P98765504	Ms	Phyllis	Tuffield	2	44

tblStudent table data 4th part...



StudentNo	Title	Forename	FamilyName	HallNo	ApartmentNo
P98765504	Ms	Phyllis	Tuffield	2	44
P98765505	Mr	Richard	Byham	2	45
P98765506	Ms	Janet	Gilliat	2	46
P98765507	Ms	Wanda	Vernon	999	21
P98765508	Mr	Matti	Karttunen	999	22
P98765509	Mr	Palle	Ibsen	999	23
P98765510	Ms	Mary	Savely	999	24
P98765511	Mr	Gary	Thomas	2	1
P98765514	Mr	Martin	Sommer	999	1
P98765515	Mr	Roland	Mendel	999	2
P98765516	Mr	Howard	Snyder	999	3
P98765517	Mr	Timothy	O'Rourke	999	4
P98765518	Ms	Karin	Josephs	999	5
P98765519	Mr	Diego	Roel	999	6
P98765520	Ms	Maria	Larsson	999	7
P98765521	Ms	Paula	Parente	999	8
P98765522	Ms	Margaret	Smith	999	9
P98765523	Ms	Aria	Cruz	999	10
P98765524	Mr	Miguel	Paolino	999	11
P98765525	Mr	Yoshi	Latimer	999	12
P98765526	Ms	Carine	Schmitt	999	25
P98765527	Mr	Pedro	Afonso	999	14
P98765528	Ms	Annette	Roulet	999	15
P98765529	Mr	Helvetius	Nagy	999	16
P98765530	Mr	Manuel	Pereira	999	17
P98765531	Ms	Karla	Jablonski	999	18

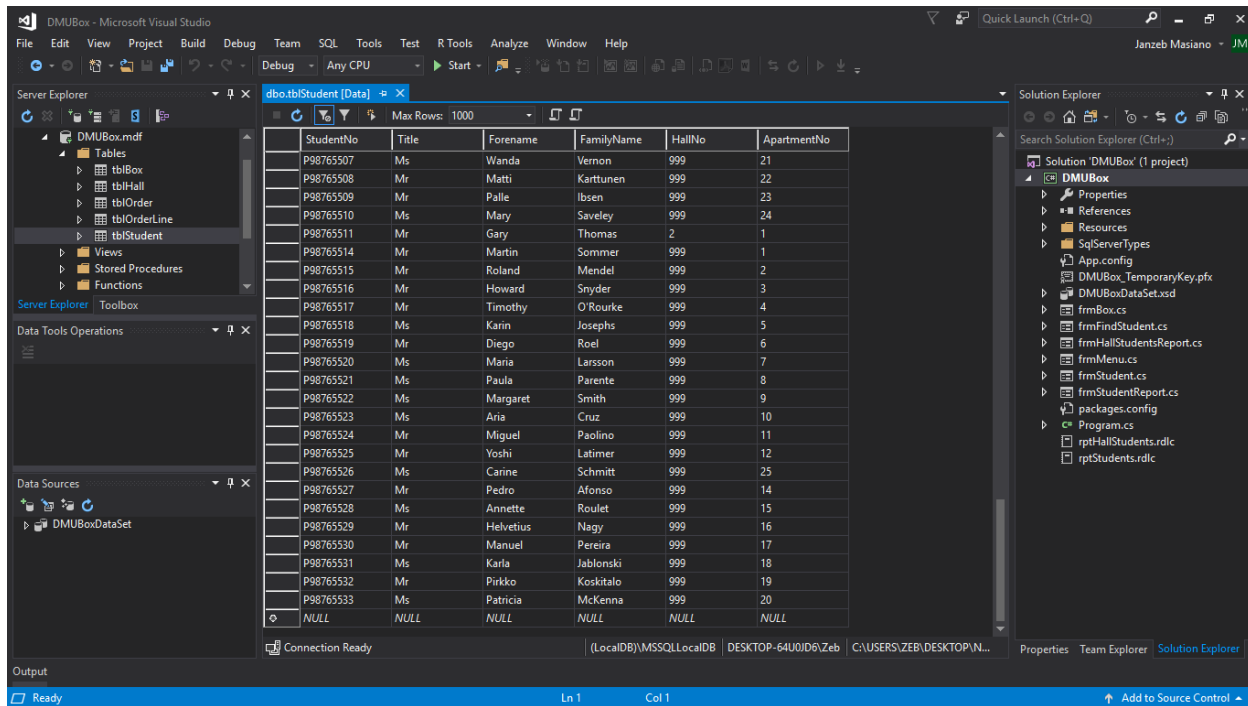
IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

Student Number: P2430705

tblStudent table data 5th part...



StudentNo	Title	Forename	FamilyName	HallNo	ApartmentNo
P98765507	Ms	Wanda	Vernon	999	21
P98765508	Mr	Matti	Karttunen	999	22
P98765509	Mr	Palle	Ibsen	999	23
P98765510	Ms	Mary	Saveley	999	24
P98765511	Mr	Gary	Thomas	2	1
P98765514	Mr	Martin	Sommer	999	1
P98765515	Mr	Roland	Mendel	999	2
P98765516	Mr	Howard	Snyder	999	3
P98765517	Mr	Timothy	O'Rourke	999	4
P98765518	Ms	Karin	Josephs	999	5
P98765519	Mr	Diego	Roel	999	6
P98765520	Ms	Maria	Larsson	999	7
P98765521	Ms	Paula	Parente	999	8
P98765522	Ms	Margaret	Smith	999	9
P98765523	Ms	Aria	Cruz	999	10
P98765524	Mr	Miguel	Paolino	999	11
P98765525	Mr	Yoshi	Latimer	999	12
P98765526	Ms	Carine	Schmitt	999	25
P98765527	Mr	Pedro	Afonso	999	14
P98765528	Ms	Annette	Roulet	999	15
P98765529	Mr	Helvetius	Nagy	999	16
P98765530	Mr	Manuel	Pereira	999	17
P98765531	Ms	Karla	Jablonski	999	18
P98765532	Mr	Pirkko	Kozkitalo	999	19
P98765533	Ms	Patricia	McKenna	999	20
NULL	NULL	NULL	NULL	NULL	NULL

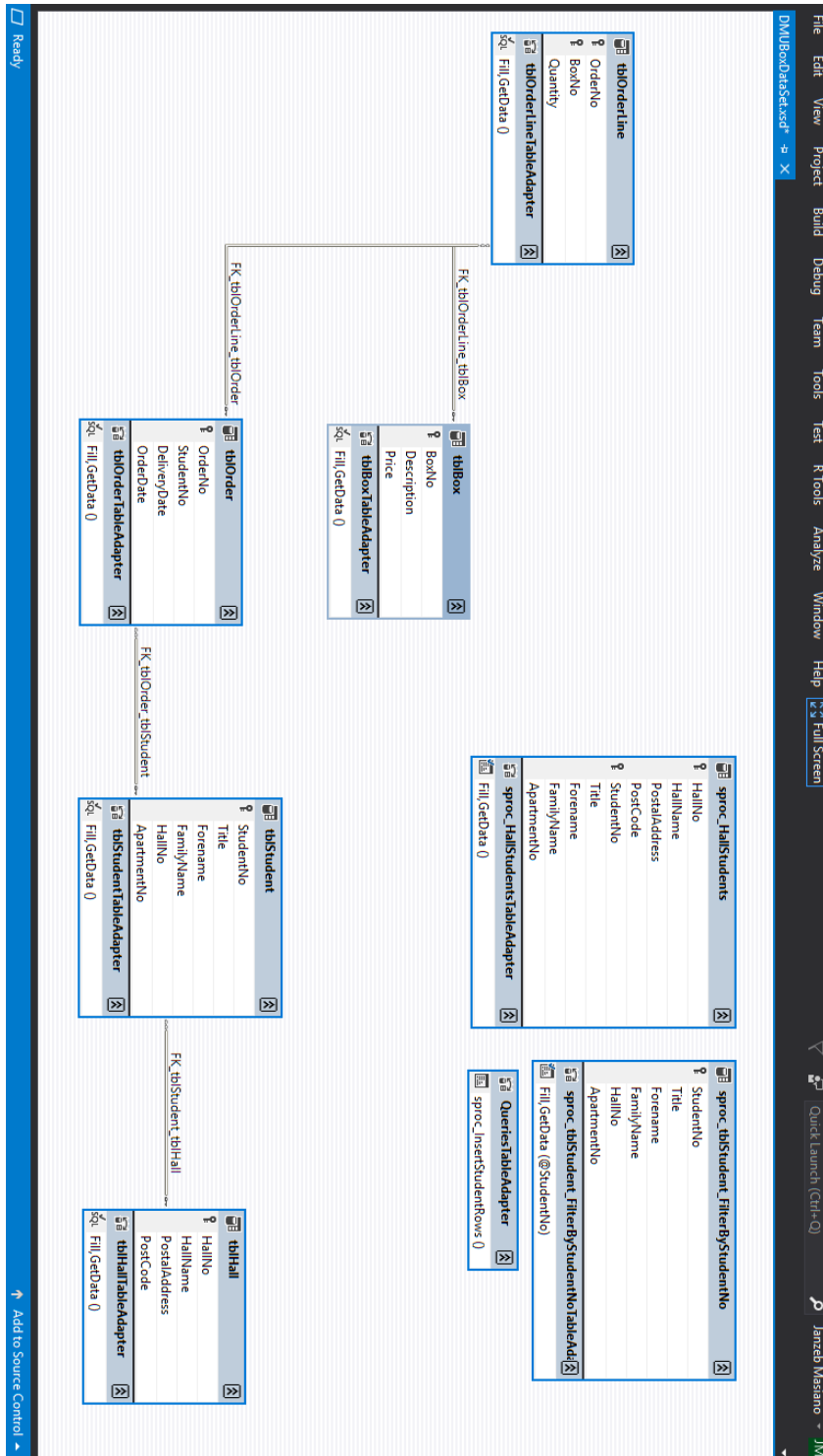
IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

Student Number: P2430705

Relationships Diagram



IMAT1215 Database Management & Reporting Building Database Application

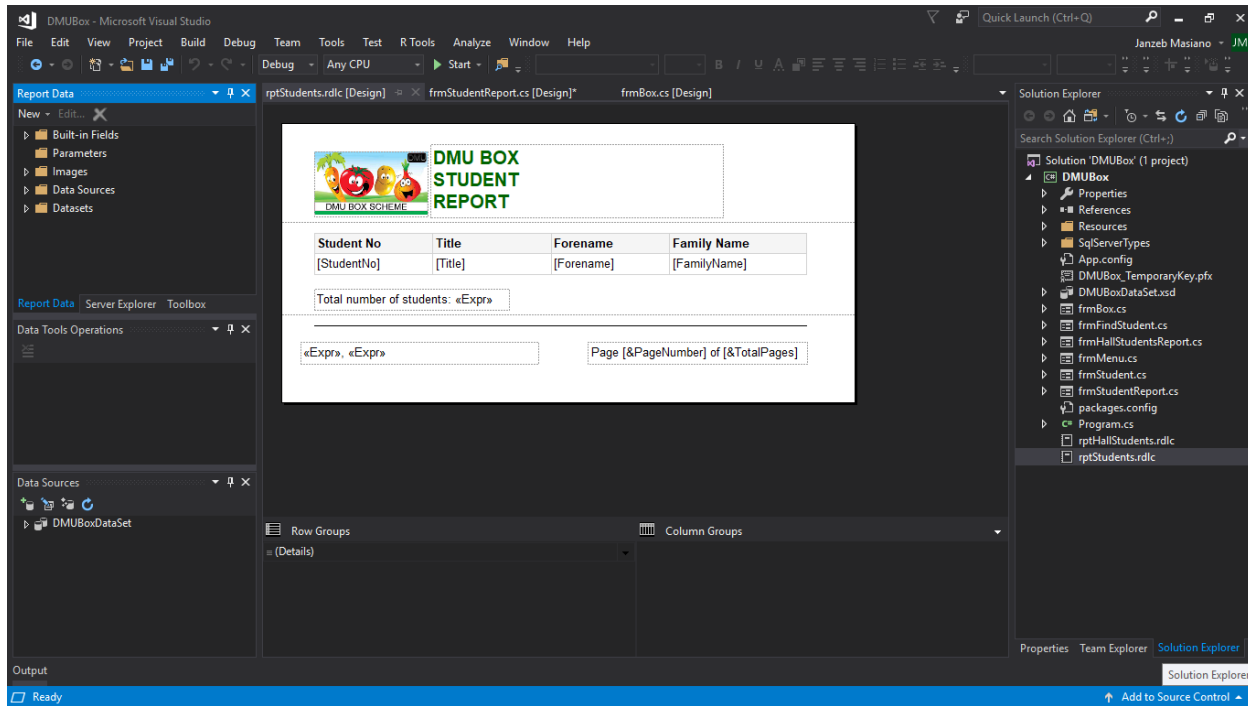
Student Name: Janzeb Masiano

Monday, 29 October 2018

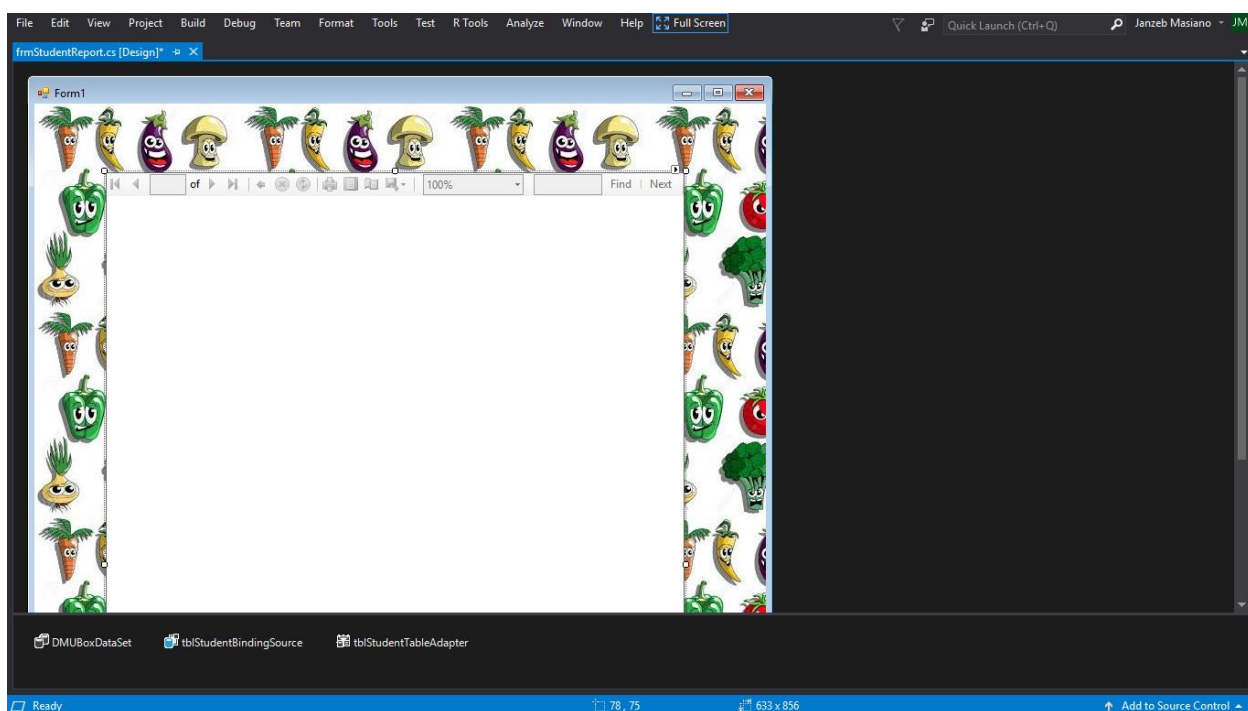
Student Number: P2430705

Reports and Forms

rptStudents.rdlc



frmStudentReport.cs



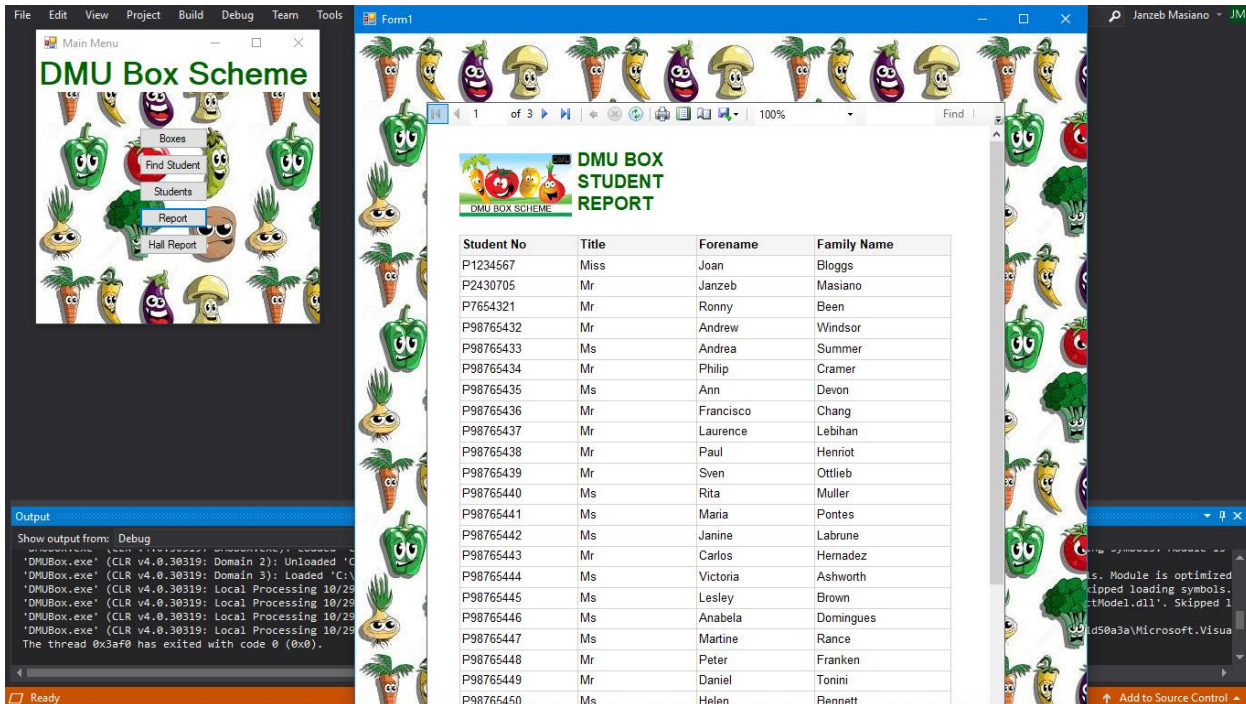
IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

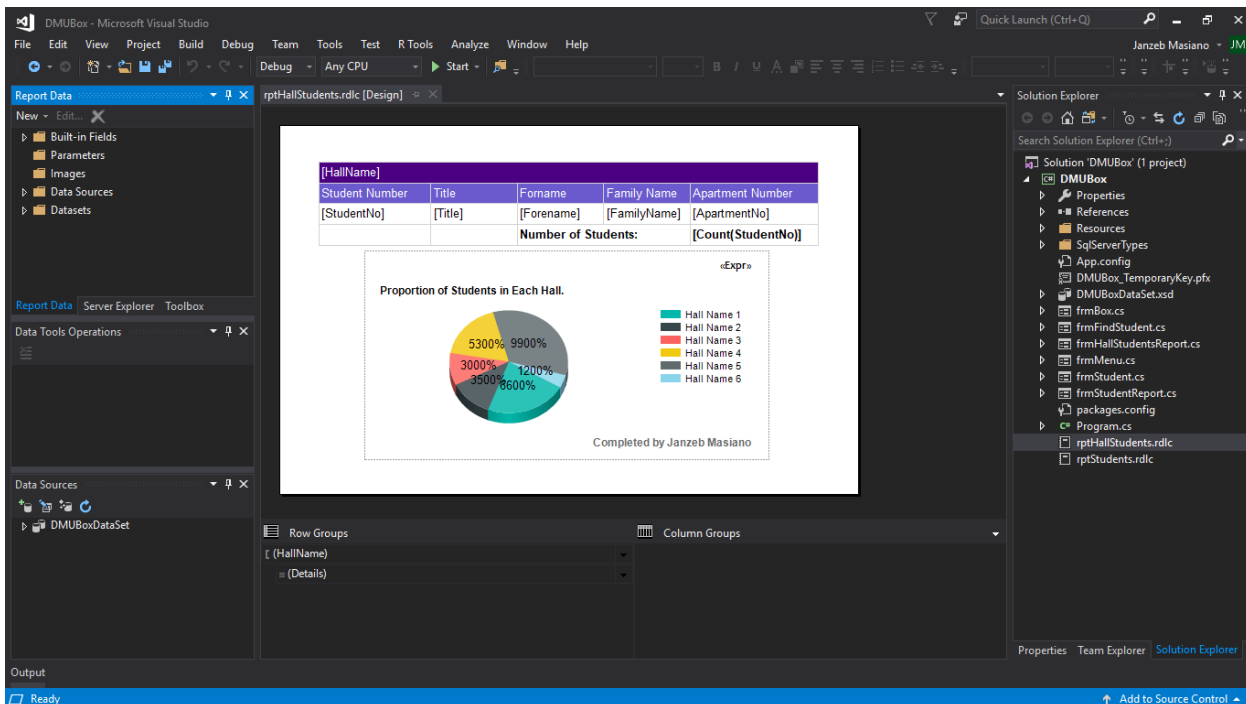
Student Number: P2430705

During runtime the form displays report:



Student No	Title	Forename	Family Name
P1234567	Miss	Joan	Bloggs
P2430705	Mr	Janzeb	Masiano
P7654321	Mr	Ronny	Been
P98765432	Mr	Andrew	Windsor
P98765433	Ms	Andrea	Summer
P98765434	Mr	Philip	Cramer
P98765435	Ms	Ann	Devon
P98765436	Mr	Francisco	Chang
P98765437	Mr	Laurence	Lebihan
P98765438	Mr	Paul	Henriot
P98765439	Mr	Sven	Ottlieb
P98765440	Ms	Rita	Muller
P98765441	Ms	Maria	Pontes
P98765442	Ms	Janine	Labruno
P98765443	Mr	Carlos	Hernandez
P98765444	Ms	Victoria	Ashworth
P98765445	Ms	Lesley	Brown
P98765446	Ms	Anabela	Domingues
P98765447	Ms	Martine	Rance
P98765448	Mr	Peter	Franken
P98765449	Mr	Daniel	Tonini
P98765450	Ms	Helen	Bennett

rptHallStudents.rdlc



[HallName]	Student Number	Title	Forname	Family Name	Apartment Number
[StudentNo]	[Title]	[Forename]	[FamilyName]	[ApartmentNo]	
			Number of Students:	[Count(StudentNo)]	

Proportion of Students in Each Hall.

Completed by Janzeb Masiano

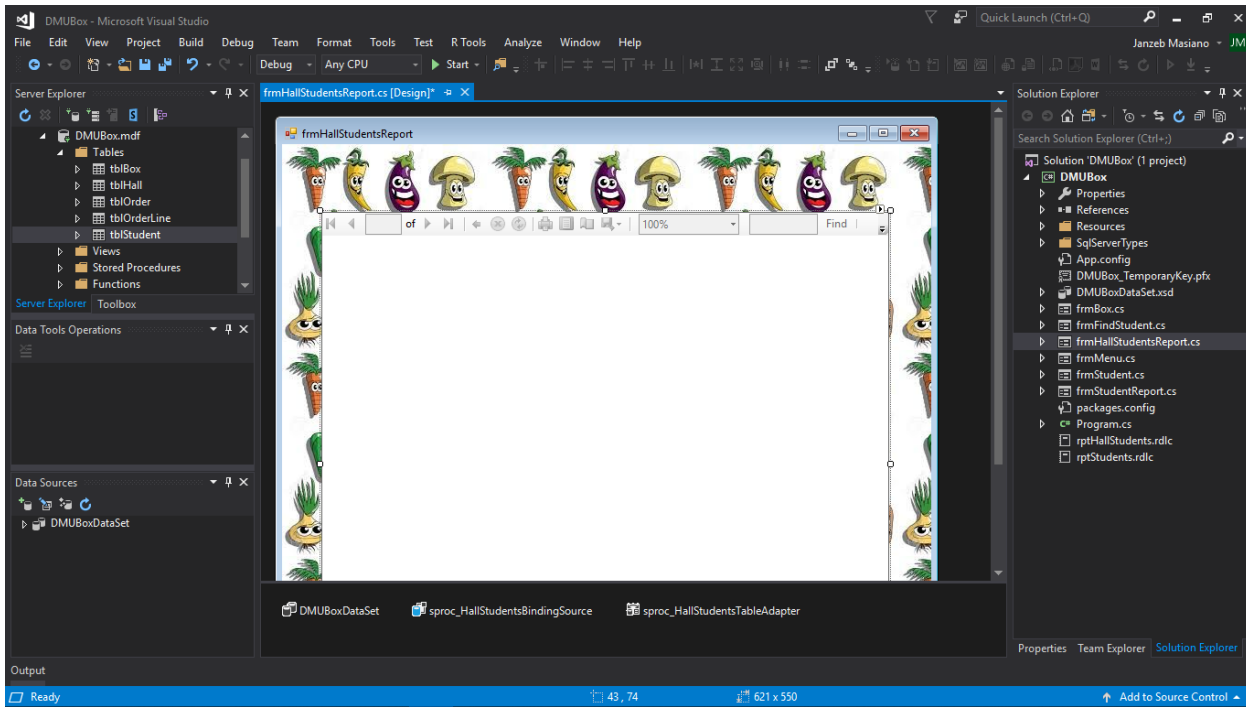
IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

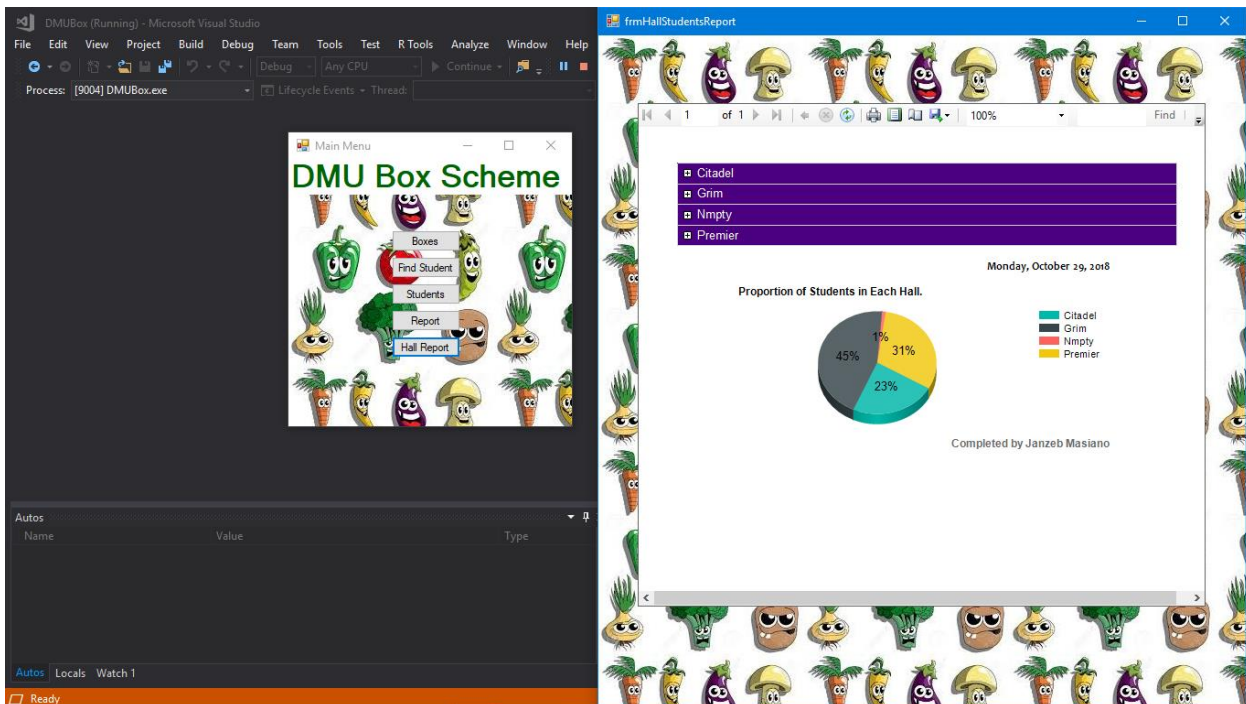
Monday, 29 October 2018

Student Number: P2430705

frmHallStudentsReport.cs



During runtime:



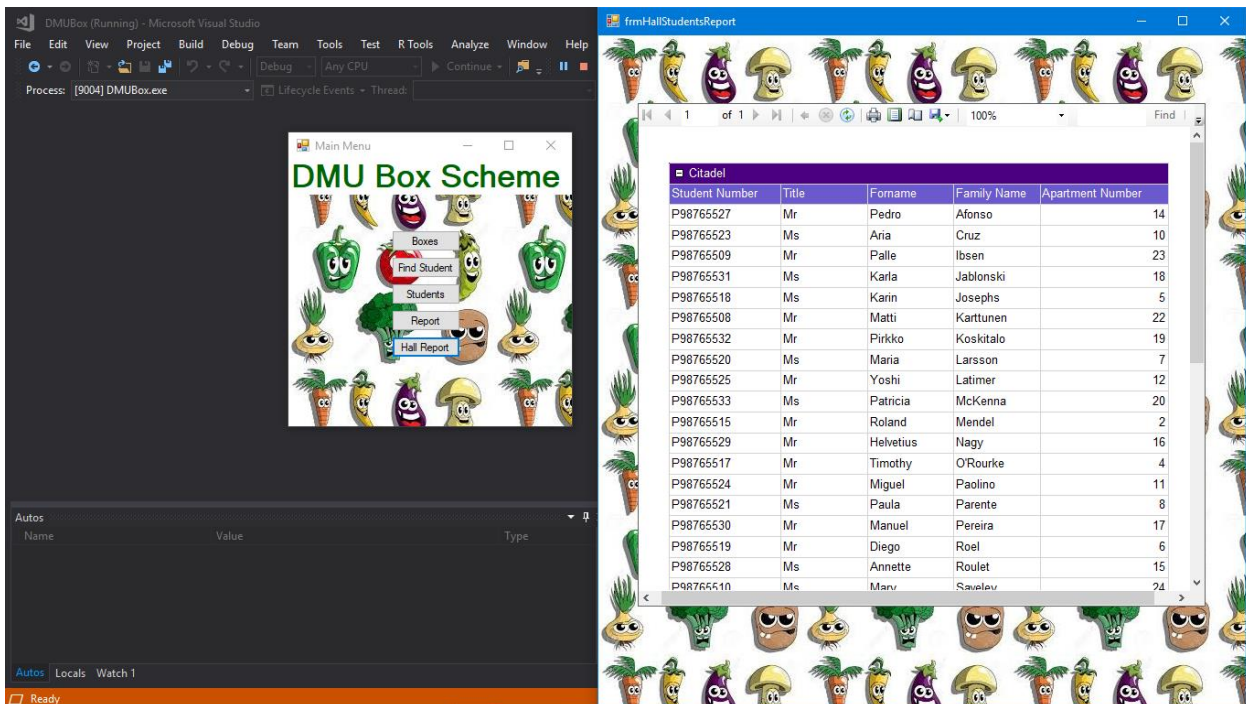
Can toggle each column to reveal data that can be scrolled using the sidebar:

IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

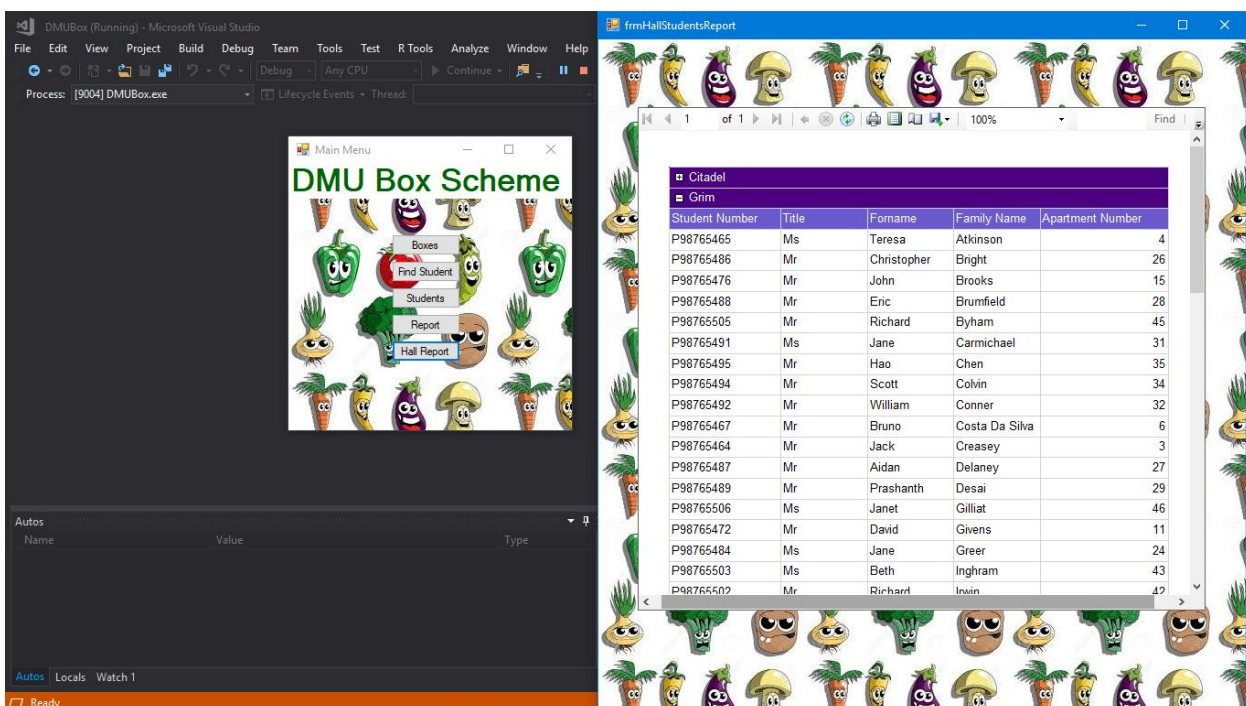
Monday, 29 October 2018

Student Number: P2430705



The screenshot shows the DMUBox Scheme application running in Microsoft Visual Studio. The application window displays a menu with options: Boxes, Find Student, Students, Report, and Hall Report. The 'Hall Report' option is selected, displaying a table of student data for the 'Citadel' hall.

Student Number	Title	Forename	Family Name	Apartment Number
P98765527	Mr	Pedro	Afonso	14
P98765523	Ms	Aria	Cruz	10
P98765509	Mr	Palle	Ibsen	23
P98765531	Ms	Karla	Jablonski	18
P98765518	Ms	Karin	Josephs	5
P98765508	Mr	Matti	Karttunen	22
P98765532	Mr	Pirkko	Koskitalo	19
P98765520	Ms	Maria	Larsson	7
P98765525	Mr	Yoshi	Latimer	12
P98765533	Ms	Patricia	McKenna	20
P98765515	Mr	Roland	Mendel	2
P98765529	Mr	Helvetius	Nagy	16
P98765517	Mr	Timothy	O'Rourke	4
P98765524	Mr	Miguel	Paolino	11
P98765521	Ms	Paula	Parente	8
P98765530	Mr	Manuel	Pereira	17
P98765519	Mr	Diego	Roel	6
P98765528	Ms	Annette	Roulet	15
P98765510	Ms	Marv	Savelov	24



The screenshot shows the DMUBox Scheme application running in Microsoft Visual Studio. The application window displays a menu with options: Boxes, Find Student, Students, Report, and Hall Report. The 'Hall Report' option is selected, displaying a table of student data for the 'Grim' hall.

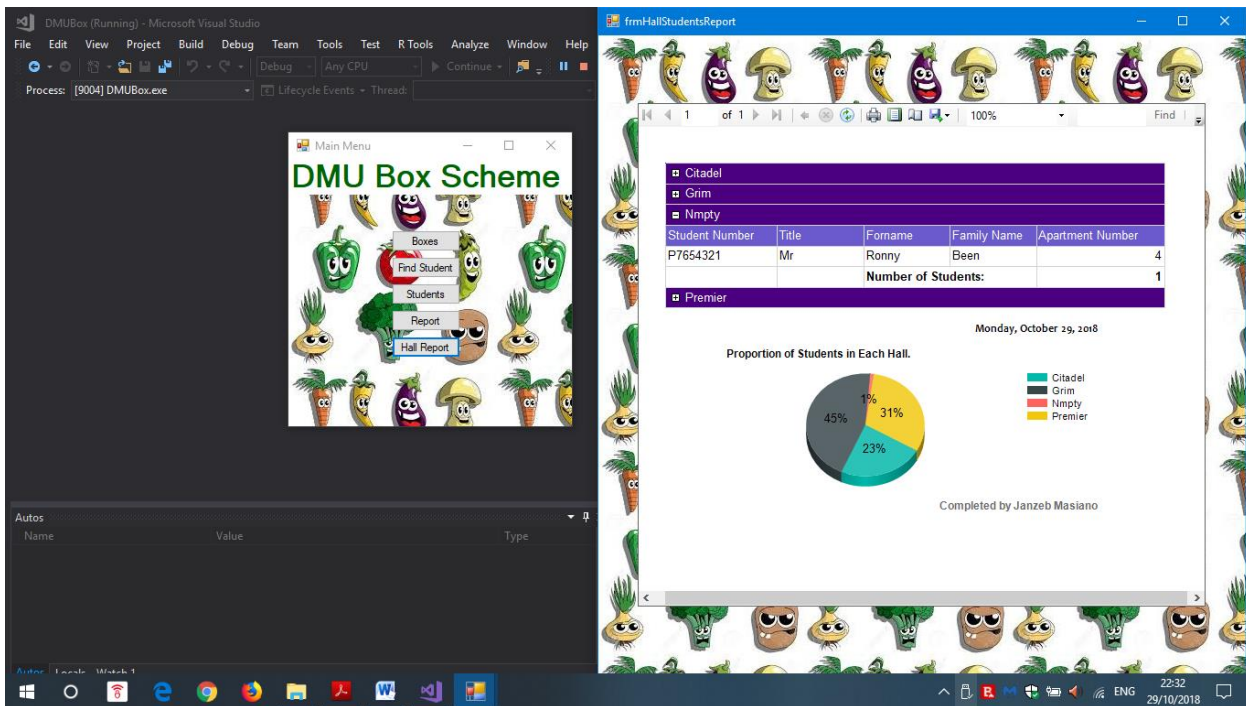
Student Number	Title	Forename	Family Name	Apartment Number
P98765465	Ms	Teresa	Atkinson	4
P98765486	Mr	Christopher	Bright	26
P98765476	Mr	John	Brooks	15
P98765488	Mr	Eric	Brumfield	28
P98765505	Mr	Richard	Byham	45
P98765491	Ms	Jane	Carmichael	31
P98765495	Mr	Hao	Chen	35
P98765494	Mr	Scott	Colvin	34
P98765492	Mr	William	Conner	32
P98765467	Mr	Bruno	Costa Da Silva	6
P98765464	Mr	Jack	Creasey	3
P98765487	Mr	Aidan	Delaney	27
P98765489	Mr	Prashanth	Desai	29
P98765506	Ms	Janet	Gilliat	46
P98765472	Mr	David	Givens	11
P98765484	Ms	Jane	Greer	24
P98765503	Ms	Beth	Inghram	43
P98765512	Mr	Richard	Inwin	47

IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

Student Number: P2430705



The screenshot shows the DMU Box Scheme application running in Microsoft Visual Studio. The application window displays a 'Main Menu' with options: Boxes, Find Student, Students, Report, and Hall Report. The 'Report' option is selected, leading to the 'frm-HallStudentsReport' form. This form displays a table of student data for the 'Premier' hall and a pie chart titled 'Proportion of Students in Each Hall'.

Student Number	Title	Forname	Family Name	Apartment Number
P7654321	Mr	Ronny	Been	4

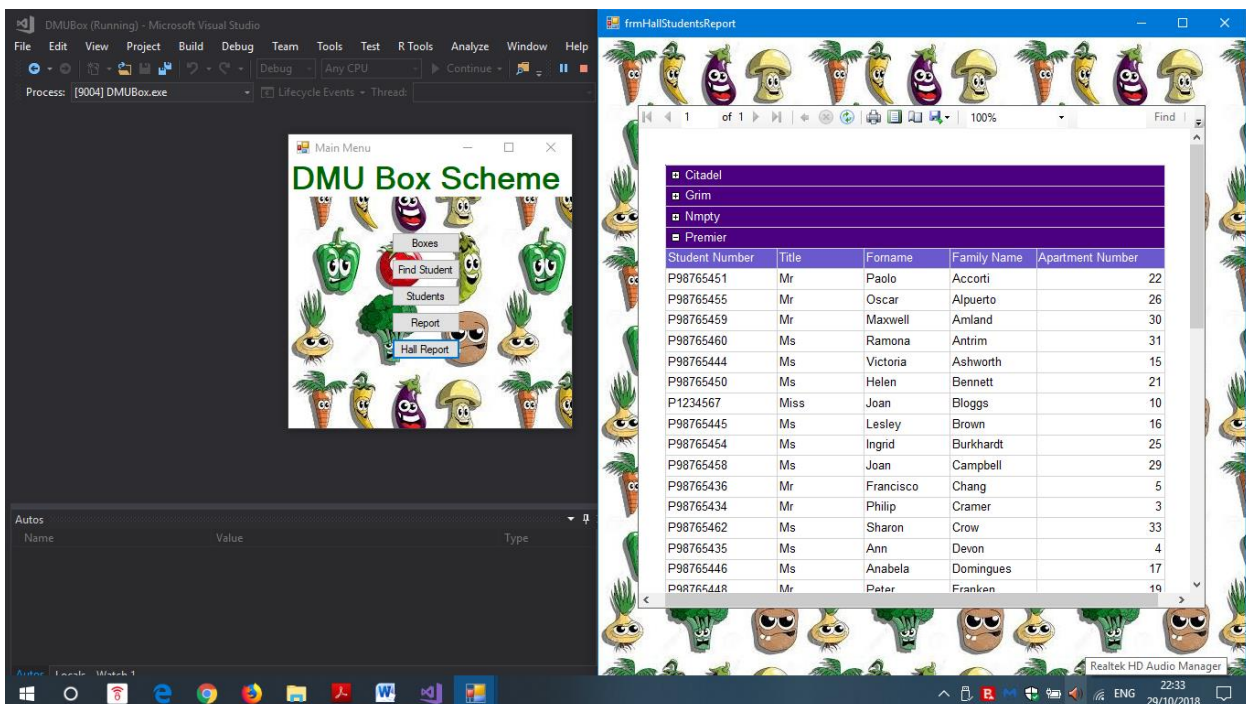
Number of Students: 1

Monday, October 29, 2018

Proportion of Students in Each Hall:

- Citadel: 1%
- Grim: 45%
- Nmpty: 31%
- Premier: 23%

Completed by Janzeb Masiano



The screenshot shows the DMU Box Scheme application running in Microsoft Visual Studio. The application window displays a 'Main Menu' with options: Boxes, Find Student, Students, Report, and Hall Report. The 'Report' option is selected, leading to the 'frm-HallStudentsReport' form. This form displays a table of student data for the 'Premier' hall.

Student Number	Title	Forname	Family Name	Apartment Number
P98765451	Mr	Paolo	Accorti	22
P98765455	Mr	Oscar	Alpuerto	26
P98765459	Mr	Maxwell	Amland	30
P98765460	Ms	Ramona	Antrim	31
P98765444	Ms	Victoria	Ashworth	15
P98765450	Ms	Helen	Bennett	21
P1234567	Miss	Joan	Bloggs	10
P98765445	Ms	Lesley	Brown	16
P98765454	Ms	Ingrid	Burkhardt	25
P98765458	Ms	Joan	Campbell	29
P98765436	Mr	Francisco	Chang	5
P98765434	Mr	Philip	Cramer	3
P98765462	Ms	Sharon	Crow	33
P98765435	Ms	Ann	Devon	4
P98765446	Ms	Anabela	Domingues	17
P98765448	Mr	Peter	Franken	14

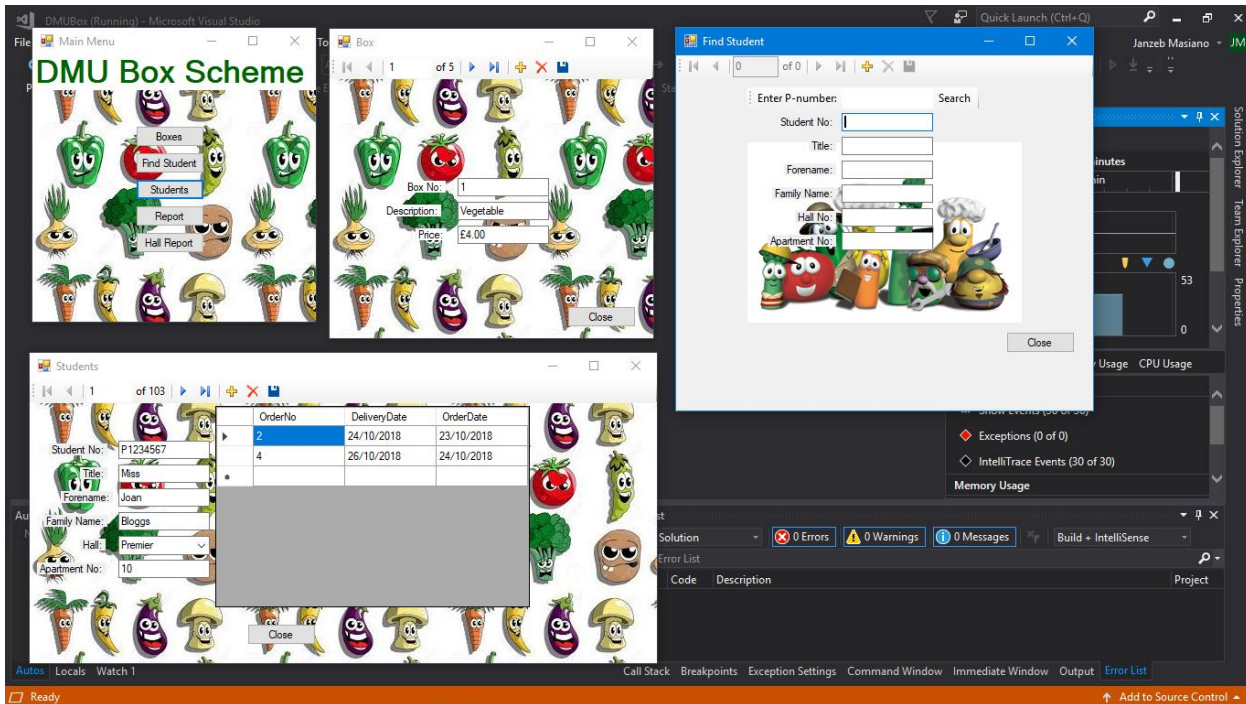
IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

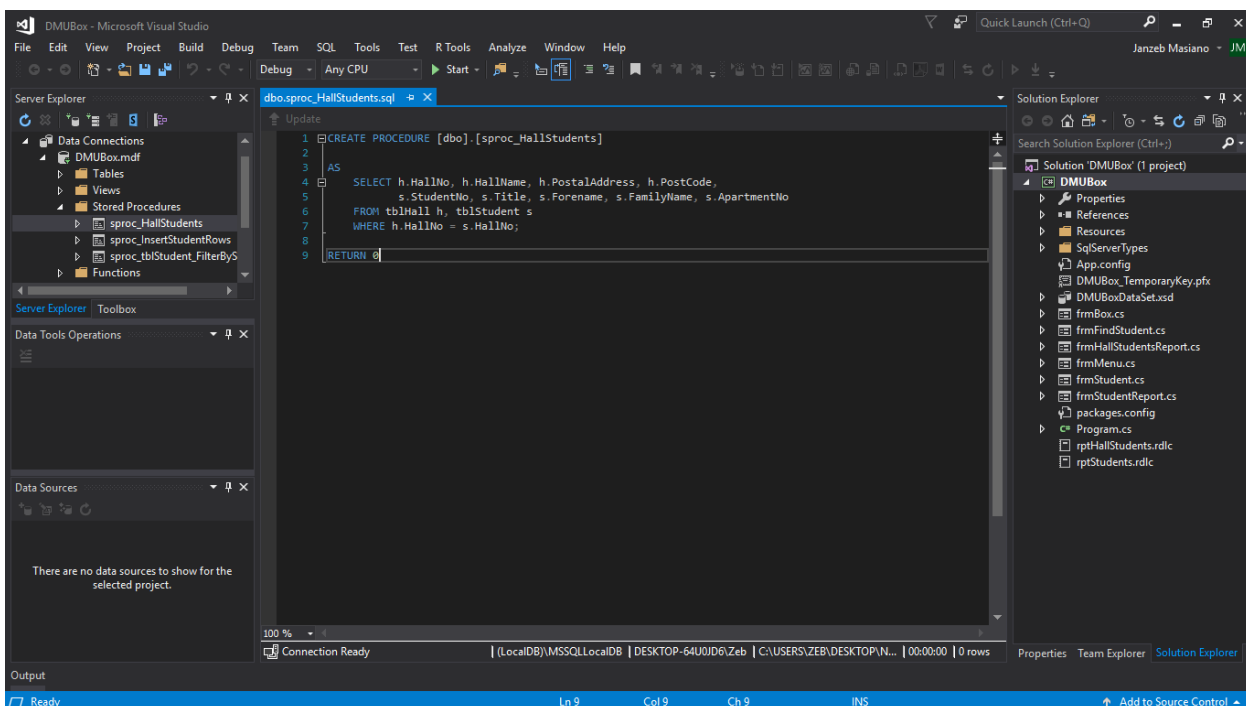
Student Number: P2430705

The Menu form (frmMenu), Box form (frmBox), Find Student (frmFindStudent) and Students form (frmStudent):



Stored Procedures

Sproc_HallStudents



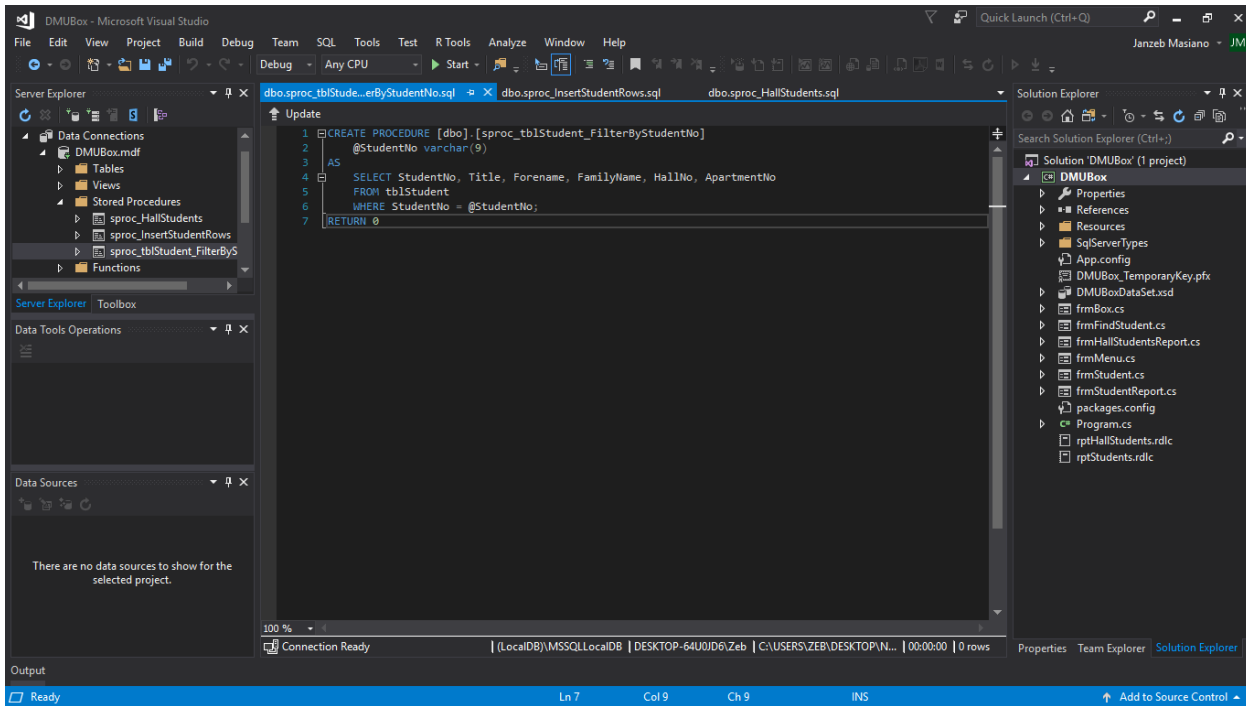
IMAT1215 Database Management & Reporting Building Database Application

Student Name: Janzeb Masiano

Monday, 29 October 2018

Student Number: P2430705

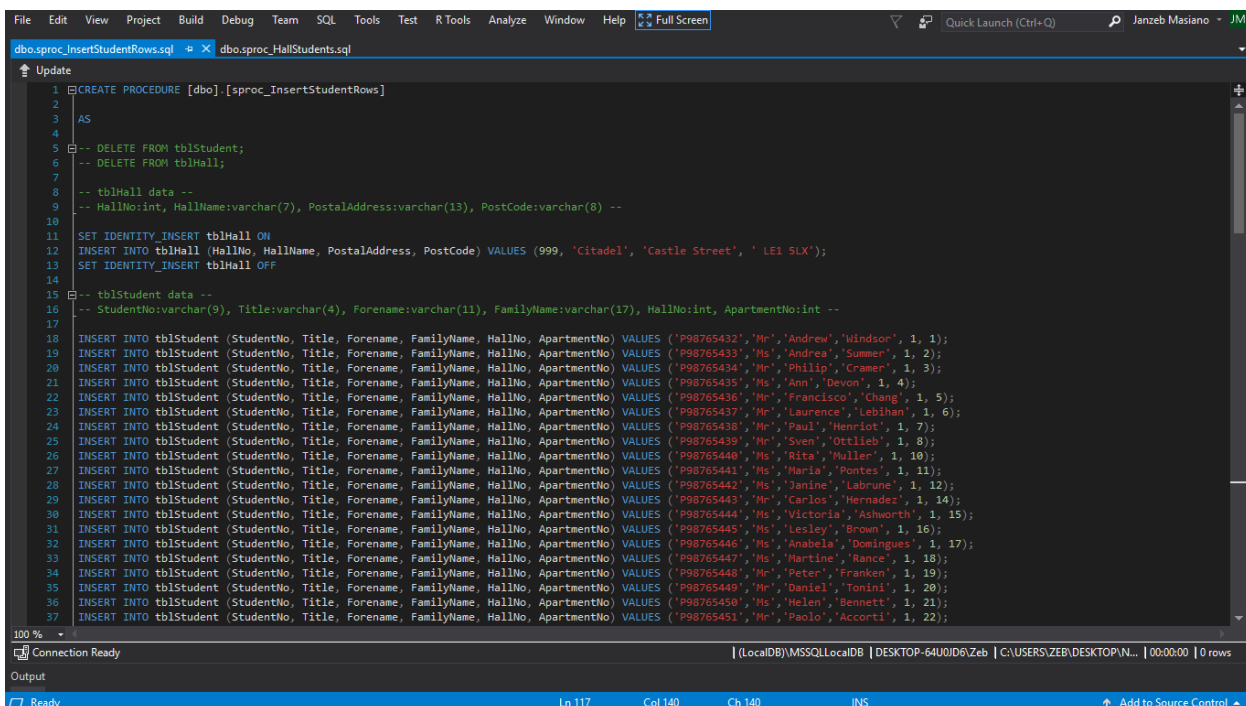
Sproc_tblStudent_filterByStudentNo



```

1 CREATE PROCEDURE [dbo].[sproc_tblStudent_FilterByStudentNo]
2     @StudentNo varchar(9)
3 AS
4     SELECT StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo
5     FROM tblStudent
6     WHERE StudentNo = @StudentNo;
7 RETURN 0
    
```

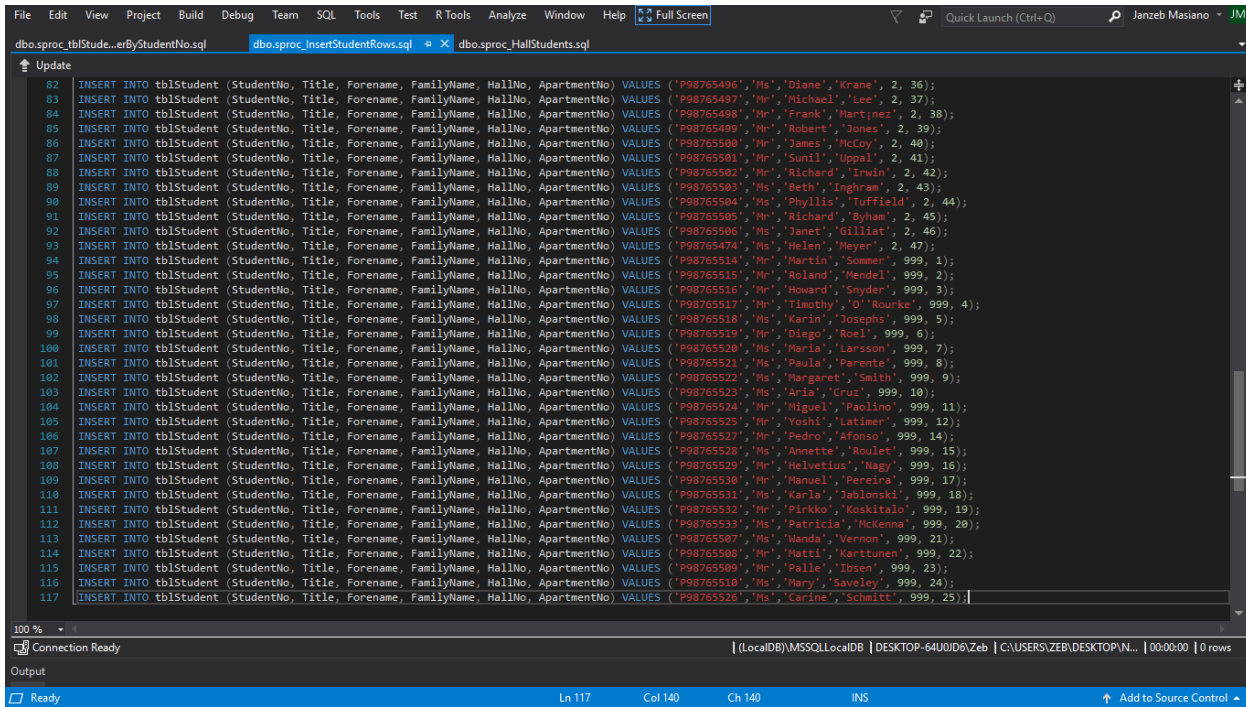
Sproc_InsertStudentRows



```

1 CREATE PROCEDURE [dbo].[sproc_InsertStudentRows]
2 AS
3 -- DELETE FROM tblStudent;
4 -- DELETE FROM tblHall;
5 -- tblHall data --
6 -- HallNo:int, HallName:varchar(7), PostalAddress:varchar(13), PostCode:varchar(8) --
7
8 SET IDENTITY_INSERT tblHall ON
9 INSERT INTO tblHall (HallNo, HallName, PostalAddress, PostCode) VALUES (999, 'Citadel', 'Castle Street', 'LE1 5LX');
10 SET IDENTITY_INSERT tblHall OFF
11
12 -- tblStudent data --
13 -- StudentNo:varchar(9), Title:varchar(4), Forename:varchar(11), FamilyName:varchar(17), HallNo:int, ApartmentNo:int --
14
15 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765432', 'Mr', 'Andrew', 'Windsor', 1, 1);
16 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765433', 'Ms', 'Andrea', 'Summer', 1, 2);
17 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765434', 'Mr', 'Philip', 'Cramer', 1, 3);
18 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765435', 'Ms', 'Ann', 'Devon', 1, 4);
19 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765436', 'Mr', 'Francisco', 'Chang', 1, 5);
20 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765437', 'Mr', 'Laurence', 'Lebihan', 1, 6);
21 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765438', 'Mr', 'Paul', 'Henriot', 1, 7);
22 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765439', 'Mr', 'Sven', 'Ottlieb', 1, 8);
23 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765440', 'Ms', 'Rita', 'Muller', 1, 10);
24 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765441', 'Ms', 'Maria', 'Pontes', 1, 11);
25 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765442', 'Ms', 'Janine', 'Labruna', 1, 12);
26 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765443', 'Mr', 'Carlos', 'Hernandez', 1, 14);
27 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765444', 'Ms', 'Victoria', 'Ashworth', 1, 15);
28 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765445', 'Ms', 'Lesley', 'Brown', 1, 16);
29 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765446', 'Ms', 'Anabela', 'Domingues', 1, 17);
30 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765447', 'Ms', 'Martine', 'Rance', 1, 18);
31 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765448', 'Mr', 'Peter', 'Franken', 1, 19);
32 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765449', 'Mr', 'Daniel', 'Tonini', 1, 20);
33 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765450', 'Ms', 'Helen', 'Bennett', 1, 21);
34 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765451', 'Mr', 'Paolo', 'Accorti', 1, 22);
    
```

Continues up to line 117...



```

82 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765496', 'Ms', 'Diane', 'Krane', 2, 36);
83 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765497', 'Mr', 'Michael', 'Lee', 2, 37);
84 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765498', 'Mr', 'Frank', 'Martinez', 2, 38);
85 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765499', 'Mr', 'Robert', 'Jones', 2, 39);
86 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765500', 'Mr', 'James', 'McCoy', 2, 40);
87 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765501', 'Mr', 'Sumil', 'Uppal', 2, 41);
88 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765502', 'Mr', 'Richard', 'Irwin', 2, 42);
89 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765503', 'Ms', 'Beth', 'Ingram', 2, 43);
90 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765504', 'Ms', 'Phyllis', 'Tuffield', 2, 44);
91 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765505', 'Mr', 'Richard', 'Byham', 2, 45);
92 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765506', 'Ms', 'Janet', 'Gilliat', 2, 46);
93 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765474', 'Ms', 'Helen', 'Meyer', 2, 47);
94 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765514', 'Mr', 'Martin', 'Sommer', 999, 1);
95 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765515', 'Mr', 'Roland', 'Mendel', 999, 2);
96 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765516', 'Mr', 'Howard', 'Snyder', 999, 3);
97 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765517', 'Mr', 'Timothy', 'O'Rourke', 999, 4);
98 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765518', 'Ms', 'Karin', 'Josephs', 999, 5);
99 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765519', 'Mr', 'Diego', 'Roci', 999, 6);
100 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765520', 'Ms', 'Maria', 'Larsson', 999, 7);
101 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765521', 'Ms', 'Paula', 'Parente', 999, 8);
102 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765522', 'Ms', 'Margaret', 'Smith', 999, 9);
103 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765523', 'Ms', 'Aria', 'Cruz', 999, 10);
104 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765524', 'Mr', 'Niguel', 'Paolino', 999, 11);
105 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765525', 'Mr', 'Yoshi', 'Latimer', 999, 12);
106 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765527', 'Mr', 'Pedro', 'Afonso', 999, 14);
107 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765528', 'Ms', 'Annette', 'Roulet', 999, 15);
108 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765529', 'Mr', 'Helvetius', 'Nagy', 999, 16);
109 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765530', 'Mr', 'Manuel', 'Pereira', 999, 17);
110 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765531', 'Ms', 'Karla', 'Jablonski', 999, 18);
111 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765532', 'Mr', 'Pirkko', 'Koskitalo', 999, 19);
112 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765533', 'Ms', 'Patricia', 'McKenna', 999, 20);
113 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765507', 'Ms', 'Manda', 'Vernon', 999, 21);
114 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765508', 'Mr', 'Matti', 'Karttunen', 999, 22);
115 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765509', 'Mr', 'Palle', 'Ibsen', 999, 23);
116 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765510', 'Ms', 'Mary', 'Saveley', 999, 24);
117 INSERT INTO tblStudent (StudentNo, Title, Forename, FamilyName, HallNo, ApartmentNo) VALUES ('P98765526', 'Ms', 'Carine', 'Schmitt', 999, 25);
  
```

Supplementary Information

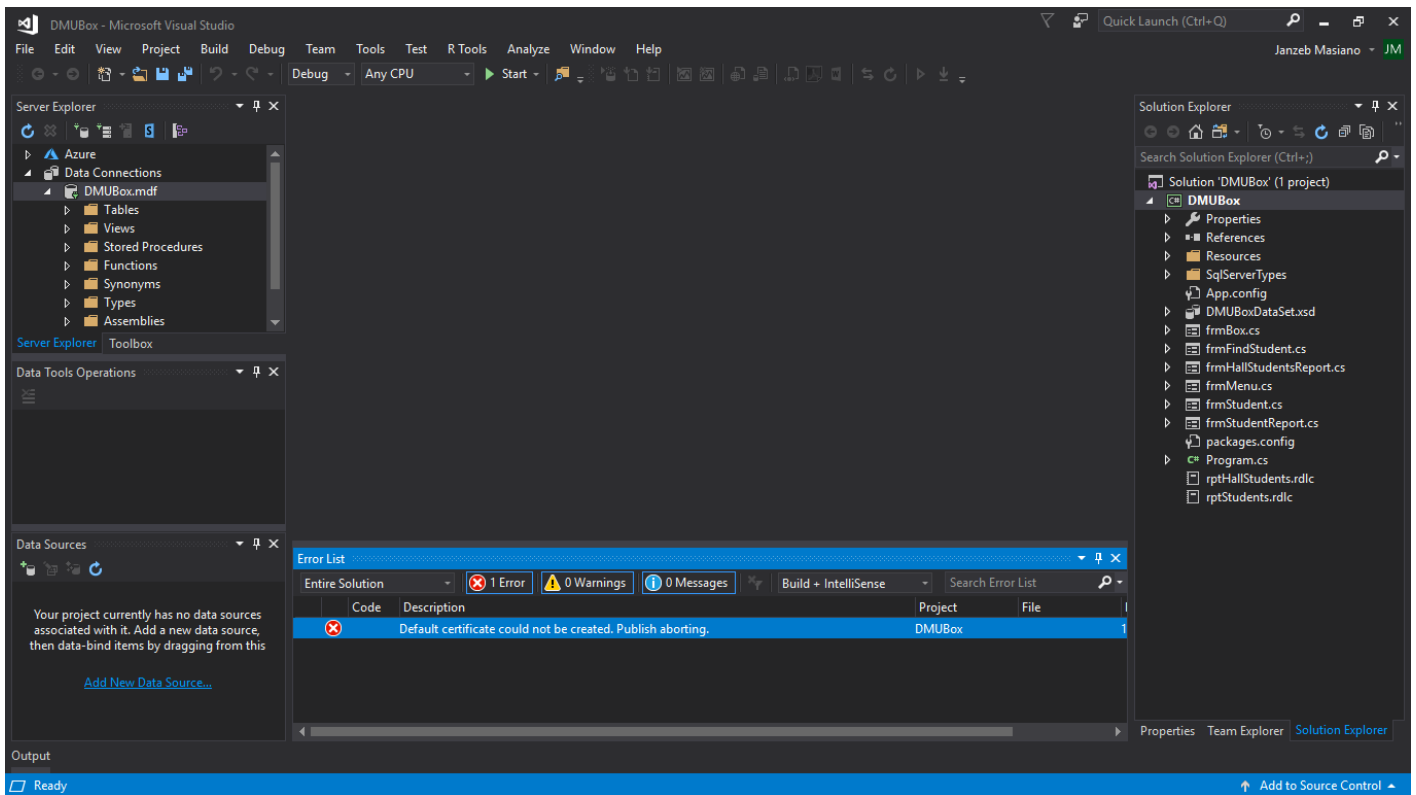
In addition to the completion of the project, I would like to mention there were some errors when attempting to publish my work. Although the process appeared to complete, an error was displayed and the executable application was not visible in the designated file location, pointed to by the file path.

IMAT1215 Database Management & Reporting Building Database Application

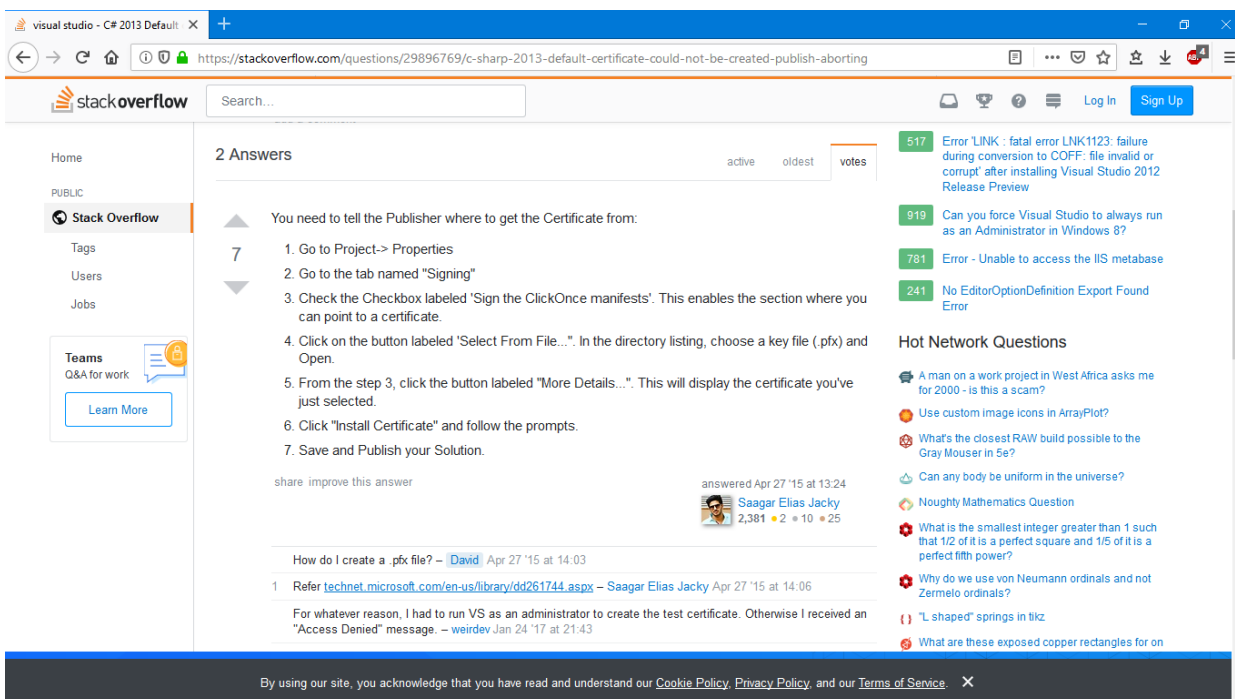
Student Name: Janzeb Masiano

Monday, 29 October 2018

Student Number: P2430705



This problem was resolved by following a solution on the [stackoverflow.com](https://stackoverflow.com/questions/29896769/c-sharp-2013-default-certificate-could-not-be-created-publish-aborting) website, found through google search:



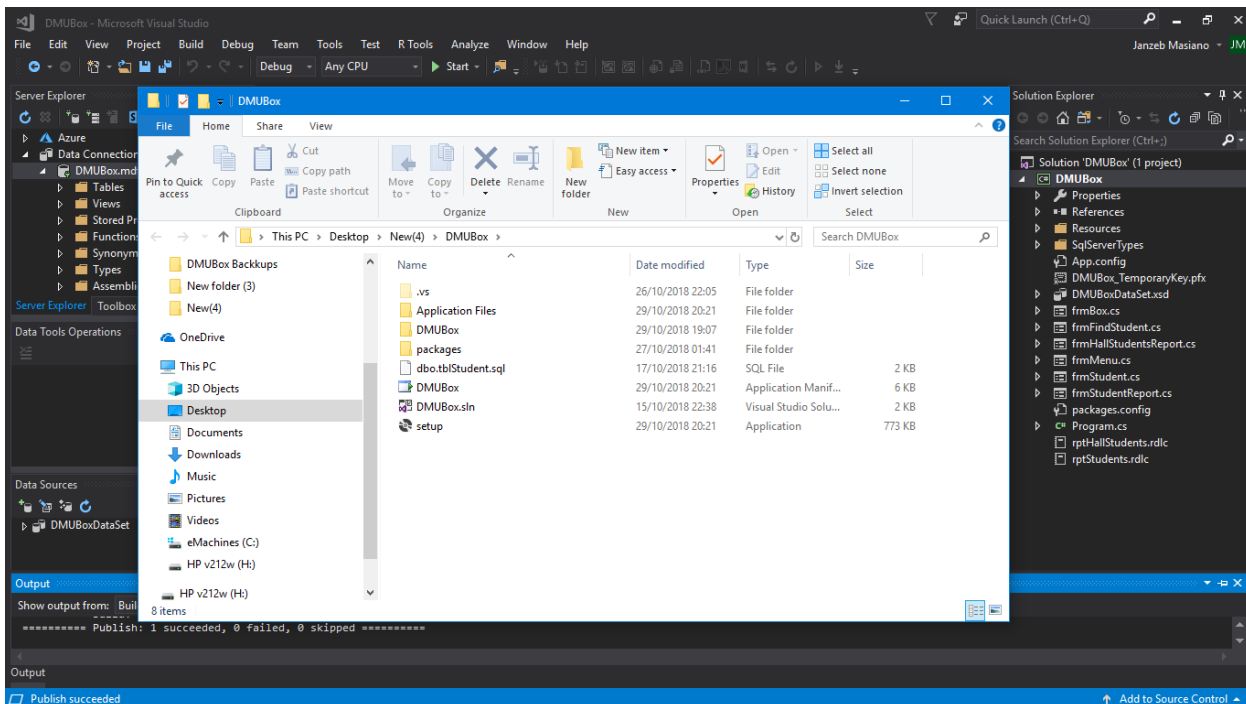
Following the instructions above led to successful publishing of the work.

IMAT1215 Database Management & Reporting Building Database Application

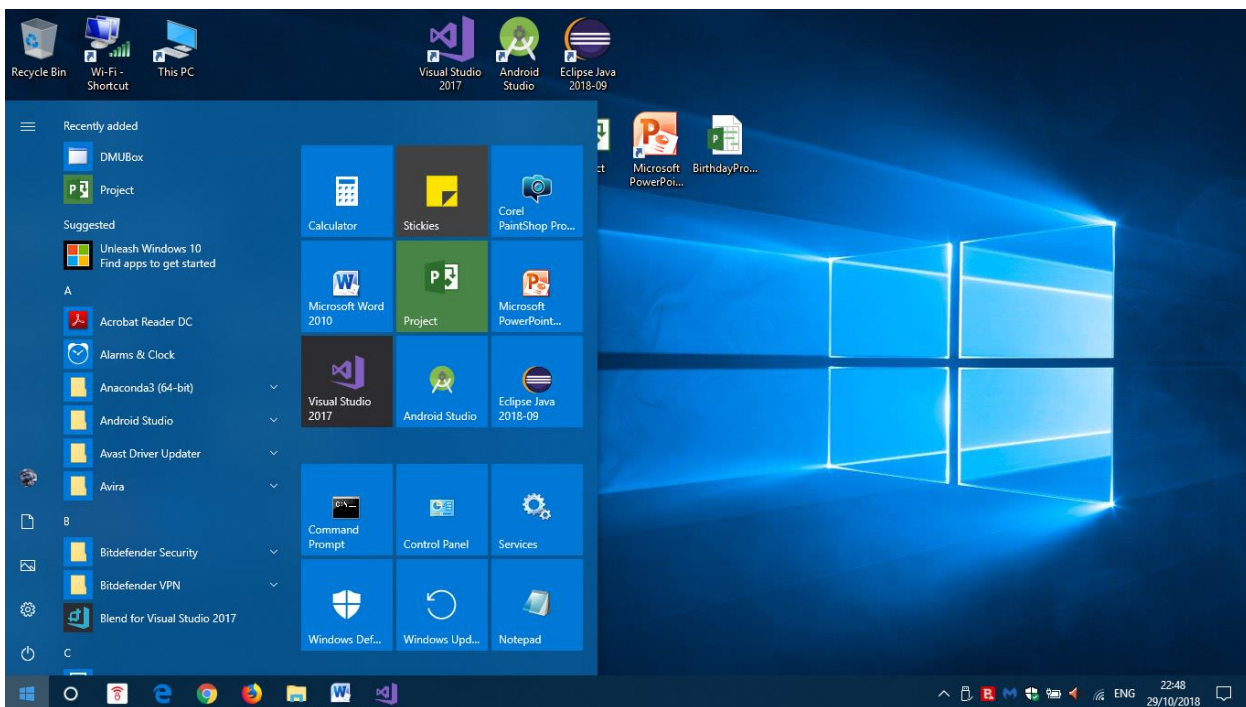
Student Name: Janzeb Masiano

Monday, 29 October 2018

Student Number: P2430705



Followed by a successful installation as indicated by the icon in the Windows start menu of my PC:



Conclusion

The DMU Box assignment in my opinion is a great introduction to database design. It takes someone who is completely new to database design on a guided visual journey and navigates them through a complex software environment, in a stage by stage process. The whole process is a key opportunity for someone to learn about the various parts of a database and gives the learner an opportunity to familiarize themselves with basic code that's performs the backbone of database design operations. My personal experience has enabled me to familiarize myself with key features of Visual Studio. I have been introduced to the patterns of naming for table entities, SQL code, stored procedures, as well as other fundamental concepts such table adapters, datasets, data sources, bindings and also, controls and aesthetics to enhance the look and feel of the database. Also, during the educational journey, I have come across some errors and researching and investigating solutions has helped me to expand my understanding and further developed my knowledge of databases and Visual Studio.