1) Start Sql Server 2008 Management Studio Express

| Microsoft SQL Server Management Studio | | and the second sec |
|--|------------------|--|
| File Edit View Tools Window Community Help | | |
| Died Explorer | Connect to Serve | Server:2008 R2 |
| | Servertype: | Database Engine 💌 |
| | Server name: | VULAB01 |
| | Authentication: | Windows Authentication 👻 |
| | Gerneme : | |
| | Peakword | Remember password |
| | Gorr | ect Cancel Help Qpfons >> |

2) Create a new database



3) Enter database name



4) Create new table

| 😑 🧻 projectdb | |
|---------------------|------------------|
| 🕀 🚞 Databas | e Diagrams |
| 🕀 🧰 Tables | |
| 🕀 🚞 Views | New Table |
| 🕀 🚞 Synon | Filter |
| 🕀 🧰 Progra | |
| 🕀 🚞 Servic | Start PowerShell |
| 🕀 🚞 Storag | Panarta |
| 🕀 🚞 Securi | reports • |
| 🛛 🚞 Security | Refresh |
| 🛛 🚞 Server Objects= | |
| 🛛 🚞 Replication | |
| 🛛 🚞 Management | |

5) Set table column names, their data types and other properties

| Column Name | Data Type | Allow Nulls | |
|--|--------------|-------------|--|
| id . | int | | |
| name | varchar(40) | | |
| address | varchar(100) | 1 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Column Properties | | | |
| 2: 21 🖂 | | | |
| | | | |
| E (General) | | | |
| E (General) (Name) | | | |
| El (General) (Name) Allow Nulls | | | |
| El (General) (Name) Allow Nulls Data Type | | | |

6) Set primary key by selecting the column and then clicking on key icon on toolbar



7) Save the table and set its name, then click OK button.

| Microsoft SQL Server Management Studio | | | | | | |
|--|-----------------------|---------|---------------|--------------|----------------|-------------|
| File Edit View Debug T | able Designer Tools | Window | Commun | ity Help | | |
| 🗄 🔔 New Query 🛅 📑 🗃 | 🖃 🖻 🌌 💂 | | | | | |
| ं 🕵 💽 🗠 🕫 🖷 🔜 💼 | <u> </u> | | | | | |
| Object Explorer | Save Table_1 | 🚽 🕂 🗙 | LRO-S | SH-USMAN.prb | - dbo.Table_1* | |
| Connect 🕶 🚚 🜉 🔳 🍸 题 | | | | Column Name | Data Type | Allow Nulls |
| 🖃 💽 😹 | ver 10.50.1600 - VUPD | C1\as5) | ▶ ¶ id | | int | |
| Databases | | / | nam | e | varchar(40) | |
| 🗉 🧰 System Databases | | addr | ress | varchar(100) | \checkmark | |
| | | | | | | |
| 🕞 📔 Militandenti 🖓 | | | | | | |



8) Follow the same process to add another table

| 1 | RO-SH-USMAN.prdbo | .CourseTaken | | | |
|--|--------------------------|--------------|-------------|--------------------|--|
| | Column Name | Data Type | Allow Nulls | | |
| ₽ ₿ | courseid | int | | | |
| | coursename | varchar(40) | V | | |
| | takenbyperson | int | 1 | | |
| | | | | | |
| Choose Name Enter a name for the table: CourseTaken OK | | | | | |
| 0 | Column Properties | | _ | | |
| | êi 2↓ □ | | | | |
| | 🗆 (General) | | | | |
| | (Name) | | | courseid | |
| | Allow Nulls | | | No | |
| | Data Type | | | int | |
| | Default Value or Binding | | | | |
| | Table Designer | | | | |
| | Collation | | | Zdatabase defaults | |

9) Create new database diagram

| 🖃 间 projectdb | |
|-----------------------|-------------------------|
| 🕀 🚞 Database Diagrams | |
| 🖃 🚞 Tables | New Database Diagram |
| 🕀 🚞 System Tables | Install Diagram Support |
| 🕀 🔲 dbo.CourseTak | Eller . |
| 🕀 🔲 dbo.Person | Filter |
| 🕀 🚞 Views | Reports + |
| 🕀 🚞 Synonyms | |
| 🕀 🚞 Programmability | Kefresh |
| | |

10) Click Yes

| Microsoft | SQL Server Management Studio | | |
|--|------------------------------|--|--|
| This database does not have one or more of the support objects required to use database diagramming. Do you wish to create them? | | | |
| B | <u>Y</u> es <u>N</u> o | | |

11) Select all the tables and click Add button, then click Close button

| Add Table | | | 8 × |
|-------------|-----------------|--------|-------|
| Tables | | | |
| CourseTaken | | | |
| Person | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | \sim | |
| | <u>R</u> efresh | Add | Close |
| | | | |

12) Drag the <u>id</u> column with left mouse button from Person table to <u>takenbyperson</u> column of CourseTaken table to create a foreign key relationship



13) Click on OK button

| Foreig | Tables and Columns | ହ <mark>×</mark> | |
|----------|---|--------------------|---------|
| Selected | Relationship name: FK. CourseTaken, Person | | |
| | Primary key table: | Foreign key table: | vill be |
| | id | takenbyperson | |
| | | | |
| | | | |
| | | \frown | |
| | | OK Cancel | cel |

14) A relationship is created



15) Use save diagram option from File menu and enter a name of the diagram

| 😓 Microsoft SQL Server Management Stu | | | | | Stu |
|---------------------------------------|--------|-----------|-------------|---------|-----|
| File | Edit | View | Debug | Table D | es |
| | Conne | ct Obje | ct Explore | r | 6 |
| 쁼맔 | Discon | nect Ob | oject Explo | rer | т |
| | New | | | × | ł |
| | Open | | | + | |
| | Close | | | | 0 |
| | Save D | iagram_ | 0 (| Ctrl+S | |
| | Save S | elected I | ltems As | | |
| | Save S | election | | | |
| 9 | Save A | .11 | Ctrl+S | hift+S | |
| | Page S | etup | | | |
| 3 | Print | | (| Ctrl+P | |
| | Exit | | | | |

| Choose Name | + | × |
|---|----|--------|
| Enter a name for the diagram Diagram_0 | ו: | |
| | ОК | Cancel |

16) Click Yes

| Save | | 2 | х | |
|---------------------|---|--------|---|--|
| <u>^</u> | The following tables will be saved to your database. Do you want to continu | ıe? | | |
| Perso Cours | n eTaken | | * | |
| • | | Þ | Ŧ | |
| <mark>▼ W</mark> ar | n about Tables Affected | | | |
| | Yes No Save Te | t File | | |

17) Use menu Database Diagram > Copy Diagram to Clipboard (if it is not disabled, then select all tables from the diagram with mouse or press Ctrl + A in the diagram to select all, then use the menu option)

| Data | abase Diagram Tools Window | Community Help |
|-------------|--|---|
| | New Table | |
| 1 | Add Table | · · · · · · · · · · · · · · · · · · · |
| 뫕 | Add Related Tables | N.prtdb - Diagram 0 |
| 1 | Delete from Database | |
| □ -µ | Remove from Diagram | |
| <u> </u> | Autosize Selected Tables | |
| 면급 | Arrange Selection | Person |
| 면물 | Arrange Tables | 😵 id 🔺 |
| | Zoom + | name |
| ab | New Text Annotation | |
| | Set Text Annotation Font | |
| Aa | Show Relationship Labels | l I |
| 믭 | View Page Breaks | |
| ti | Recalculate Page Breaks | |
| | Copy Diagram to Clipboard | |
| | | CourseTaken |
| | | 8 courseid |
| | | coursename |
| | | takenbyperson |
| | | |
| | Data | Tools Window New Table Add Table Add Table Add Related Tables Add Related Tables Image Remove from Diagram Autosize Selected Tables Arrange Selection Arrange Tables Storm Arrange Tables Storm Arrange Selection Set Text Annotation Set Text Annotation Font Show Relationship Labels Storw Page Breaks Recalculate Page Breaks |

18) Open paint brush, paste the diagram by pressing Ctrl + V or use Paste button from the tool bar, then save the diagram.

| Clipboard Image | Tools | Co v To Desktop | Search Desktop |
|---|---------------------------------------|---|----------------|
| Image: Second | _ | Organize 👻 New folder | H • 0 |
| Clipboard Image | Tools | Favorites Favorites 4Sync Desktop Downloads Recent Places Libraries Documents Music Pictures Videos | |
| 2 B | .8 | File name mydbdiagram Save as type PNG (*.png) | • |
| | CourseTaken courseid coursename | Hide Folders | Save Cancel |

The diagram is saved so you can now use it in your MS Word document/deliverable.