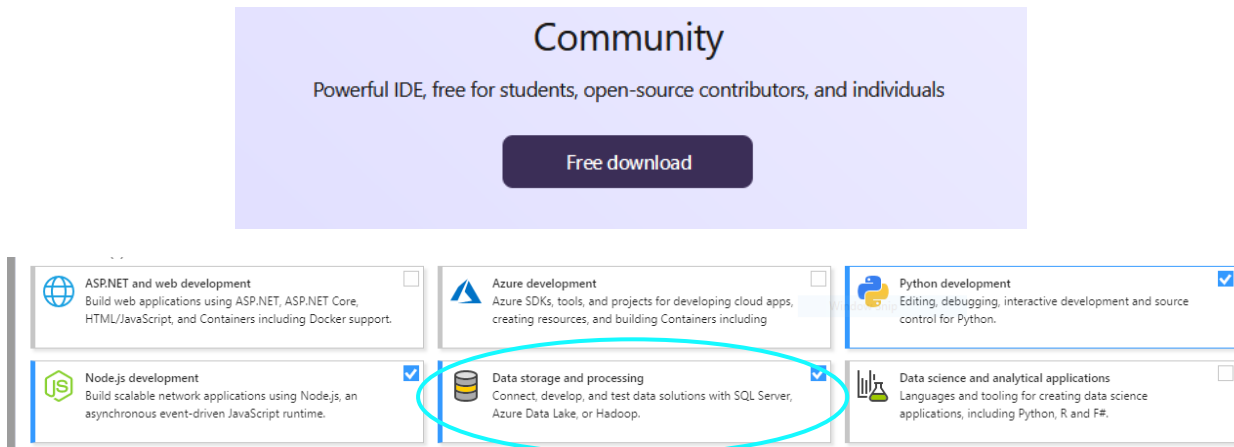


# COSC 4301 – Database Theory and Practice

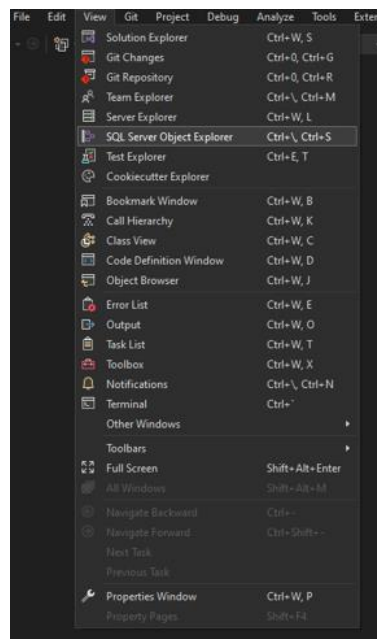
## Lab 01

Verify SQL Server support is installed with Visual Studio:

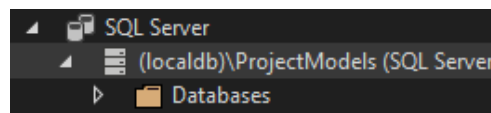
<https://visualstudio.microsoft.com/downloads/>



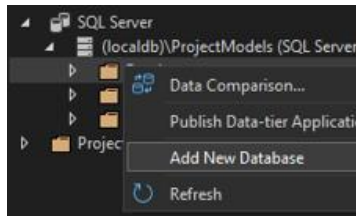
Navigate to SQL Server Object Explorer:



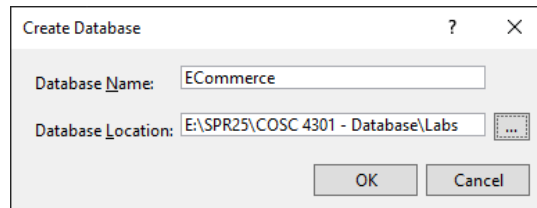
Expand SQL Server and localdb:



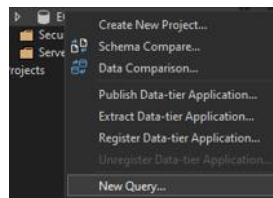
Right-click on the Databases folder and select Add New Database:



Name the database:



Right-click on the new ECommerce and select New Query:



Create the Ecommerce database given the following schema:

### Customers

customer\_id, first\_name, middle\_initial, last\_name, email, phone, address

### Products

product\_id, name, description, price, category\_id, image\_url, stock\_quantity

### Orders

order\_id, customer\_id, order\_date, total\_amount, status

### Items

item\_id, order\_id, product\_id, quantity, unit\_price

### Categories

category\_id, name

### Reviews

review\_id, product\_id, customer\_id, rating, comment

```

use ECommerce

--Customers Table
CREATE TABLE Customers (
    customer_id INT,
    first_name VARCHAR(15),
    middle_initial CHAR(1),
    last_name VARCHAR(15),
    email VARCHAR(30),
    phone VARCHAR(15),
    address VARCHAR(30)
    PRIMARY KEY (customer_id)
);

--Products Table
CREATE TABLE Products (
    product_id INT,
    name VARCHAR(30),
    description VARCHAR(250),
    price DECIMAL(10,2),
    category_id INT,
    image_url VARCHAR(100),
    stock_quantity INT,
    PRIMARY KEY (product_id)
);

--Orders Table
CREATE Table Orders (
    order_id INT,
    customer_id INT,
    order_date VARCHAR(10),
    total_amount INT,
    status VARCHAR(15),
    PRIMARY KEY (order_id)
);

--Items Table
CREATE TABLE Items (
    item_id INT,
    order_id INT,
    product_id INT,
    quantity INT,
    unit_price INT
    PRIMARY KEY (item_id)
);

--Categories Table
CREATE TABLE Categories (
    category_id INT,
    name VARCHAR(30),
    PRIMARY KEY (category_id)
);

--Reviews Table
CREATE TABLE Reviews (
    review_id INT,
    product_id INT,
    customer_id INT,
    rating DECIMAL(10,2),
    comment VARCHAR(100)
    PRIMARY KEY (review_id)

```

```
);
```

```
--Add the foreign keys
```

```
ALTER TABLE Products  
ADD FOREIGN KEY (category_id) REFERENCES Categories(category_id)
```

```
ALTER TABLE Orders  
ADD FOREIGN KEY (customer_id) REFERENCES Customers(customer_id)
```

```
ALTER TABLE Items  
ADD FOREIGN KEY (order_id) REFERENCES Orders(order_id)
```

```
ALTER TABLE Items  
ADD FOREIGN KEY (product_id) REFERENCES Products(product_id)
```

```
ALTER TABLE Reviews  
ADD FOREIGN KEY (product_id) REFERENCES Products(product_id)
```

```
ALTER TABLE Reviews  
ADD FOREIGN KEY (customer_id) REFERENCES Customers(customer_id)
```

