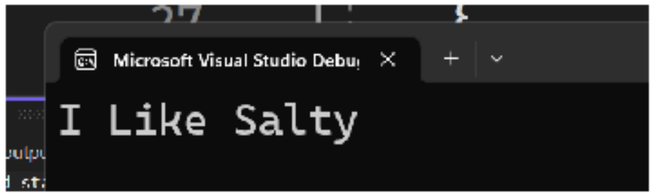
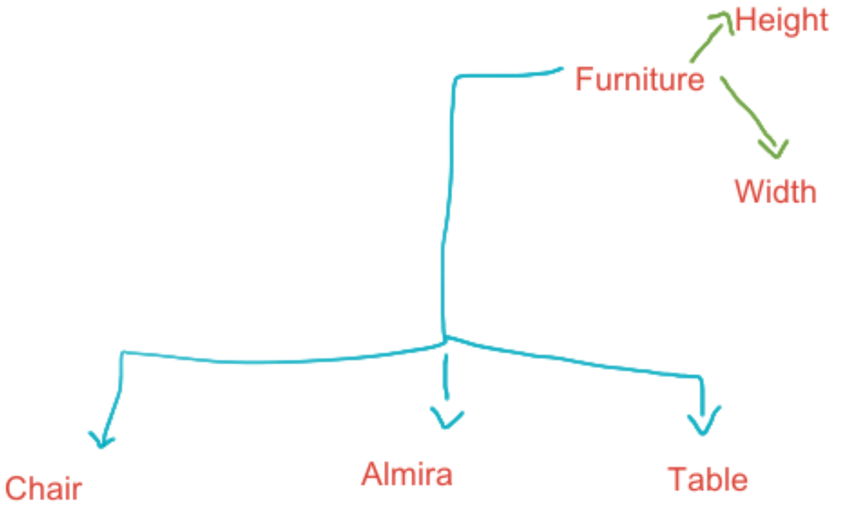
```
1 reference
class Father
{
    1 reference
    public void foodHabit()
    {
        Console.WriteLine("I Like Salty");
    }
}
2 references
class Son : Father
{
}

0 references
internal class Program
{
    0 references
    static void Main(string[] args)
    {
        Son gopal = new Son();
        gopal.foodHabit();
    }
}
```

Derived Class : base Class






```
0 references
class Furniture
{
    public int height;
    public int width;

    0 references
    public void printDetails(String furnitureType)
    {
        Console.WriteLine($"Printing Details for {furnitureType}");
        Console.WriteLine($"Height : {height} Width : {width}");
    }
}
```

```
0 references
internal class Program1
{
    0 references
    static void Main(string[] args)
    {
        Chair neelkamal = new Chair();
        neelkamal.getDetails();
    }
}
```

```
2 references
class Chair : Furniture {
    1 reference
    public void getDetails()
    {
        //avoiding user input to speed up the explanation
        height = 20; width=40;
        printDetails("Chair");
        // calling the printDetails
        // function inherited from Furniture
    }
}
```

```
Microsoft Visual Studio Debu
Printing Details for Chair
Height : 20 Width : 40
```

```
class Furniture
{
    public int height;
    public int width;

    0 references
    public void Mirror()
    {
        Console.WriteLine("See yourself here..");
    }
```

mirror

```
2 references
class Chair : Furniture {
    1 reference
```

```
2 references
class Almirah : Furniture
{
```

```
    2 references
    class table : Furniture
    {
        1 reference
```

```
1 reference
interface iAccessorie
{
    1 reference
    void mirror();
}
```

```
2 references
class Almirah : Furniture , iAccessorie
{
    1 reference
    public void mirror() { Console.WriteLine("See yourself here.."); }
```

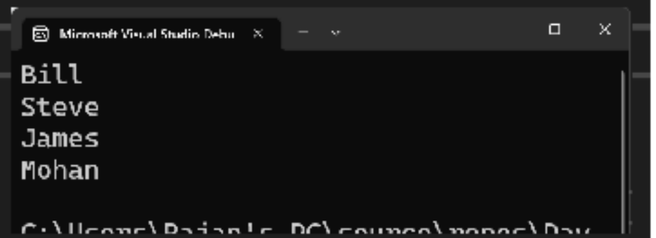
```
2 references
class Chair : Furniture {
    1 reference
    public void getDetails()
    {
        //avoiding user input to speed up the explanation
        height = 20; width=40;
        printDetails("Chair");
        // calling the printDetails
        // function inherited from Furniture
    }
}
```

```
3 references
class Automobile
{
    0 references
    public void wheel(int WheelCount) { Console.WriteLine($" I have {WheelCount} Wheels"); }
}

0 references
class Car : Automobile { }
0 references
class Truck : Automobile { }
0 references
class Bike: Automobile { }


0 references
internal class Program2
{

```

```
namespace Day5
{
    1 reference
    interface iParts
    {
        1 reference
        void AC();
    }

    2 references
    interface  iMusicPlayer
    {
        1 reference
        void play();
        1 reference
        void pause();
    }

    3 references
    class Automobile
    {
        0 references
        public void wheel(int WheelCount) { Console.WriteLine($" I have {WheelCount} Wheels"); }

        0 references
        public void AC() { }
    }

    0 references
    class Car : Automobile , iParts , iMusicPlayer{
        1 reference
        public void AC() { }
    }
```

```
    0 references
    class Car : Automobile , iParts , iMusicPlayer{
        1 reference
        public void AC() { }
        1 reference
        public void play() { }
        1 reference
        public void pause() { }
    }
    0 references
    class Truck : Automobile { }
    0 references
    class Bike: Automobile ,iMusicPlayer{
        1 reference
        public void play() { }
        1 reference
        public void pause() { }
    }


    0 references
    internal class Program2
    {

    }
}
```

```
static void Main(string[] args)
{
    // Linq : is  a concept in c# which lets you query your data easily

    string[] names = { "Bill", "Steve", "James", "Mohan" };

    var AllNames = from name in names select name;


    // let us write  aloop that prints all elements

    foreach (var name in  AllNames)
    {
        Console.WriteLine(name);
    }


}
```



```
namespace Day_5;
class Program
{
    static void Main(string[] args)
    {
        String[] names = { "James", "Steve", "Mohan", "Bill" };


        //var allNames = from name in names select name;

        // let us alter the query to do the Filteration
        // Objective: find names that contain 'a' in them.

        var allNames = from name in names
                       where name.Contains("a")
                       select name;

        foreach(string fn in allNames){

            Console.WriteLine(fn);
        }


    }
}
```

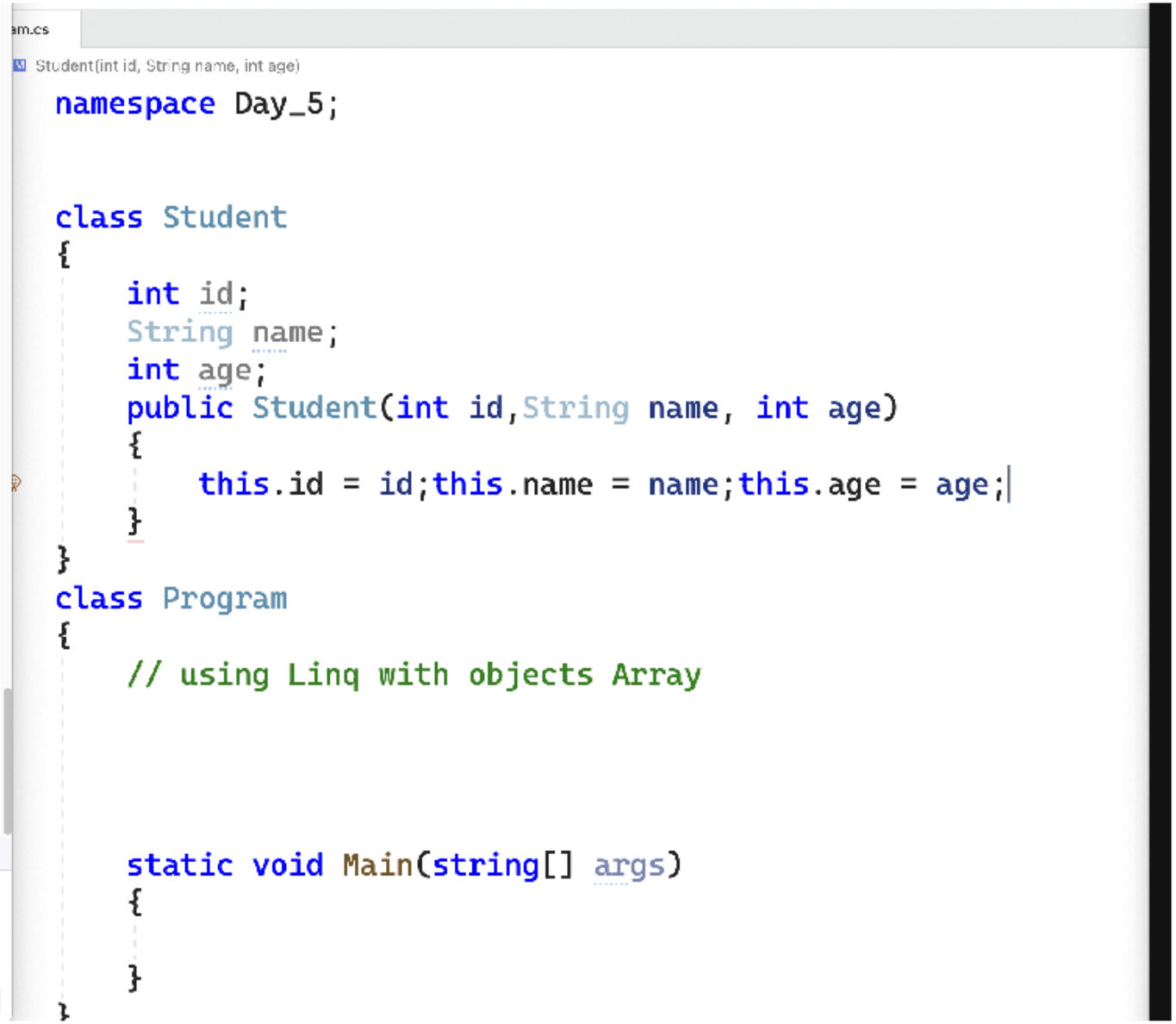
am › Main(string[] args)

```
namespace Day_5;
class Program
{
    static void Main(string[] args)
    {
        int[] prices = { 67, 84, 91, 42, 84, 36, 41, 90 };

        // Objective : fetch all prices < 50

        var lowPrices = from p in prices
                        where p < 50
                        select p;

        // print all Low Prices

        foreach(int price in lowPrices){

            Console.WriteLine(price);

        }

    }
}
```

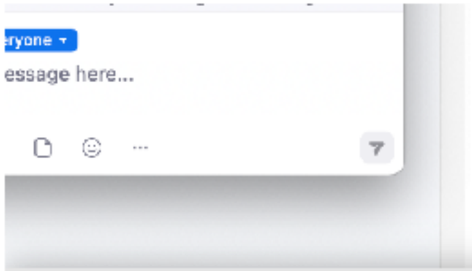
Program.cs

am › Main(string[] args)

```
5       {
6           // Sorting
7
8           int[] population = { 678, 400, 750, 200, 900, 350 };
9
10
11          // writing the linq query to Sort the Data
12
13          var sortedPopulation = from p in population
14                                 orderby p descending
15                                 select p;
16
17          //printing the sorted Population
18
19          foreach(int pop in sortedPopulation)
20          {
21              Console.WriteLine(pop);
22          }
23
24      }
```


am.cs
Student(int id, String name, int age)
namespace Day_5;
class Student
{
int id;
String name;
int age;
public Student(int id,String name, int age)
{
this.id = id;this.name = name;this.age = age;
}
}
class Program
{
// using Linq with objects Array
static void Main(string[] args)
{
}
}

```
    static void Main(string[] args)
    {
        // Create the Objects Array
        Student[] students =
        {
            new Student(1,"peter",18),
            new Student(2,"nick",21),
            new Student(3,"windy",19)
        };

        // let us write linq query to filter the teen Age students

        var teens = students.Where(s => s.age >= 13 && s.age <= 19).ToArray();

        foreach(Student std in teens)
        {
            Console.WriteLine($"ID :{std.id} Name :{std.name} Age : {std.age}");
        }

    }
}
```




```
36
37      // let us find Student whose name matches with 'nick'
38
39      Student? nick = students.Where(s => s.name == "nick").FirstOrDefault();
40
41      Console.WriteLine($"ID :{nick.id} Name :{nick.name} Age : {nick.age}");
42
```

Terminal – Day-5

```
ID :1 Name :peter Age : 18
ID :3 Name :windy Age : 19
ID :2 Name :nick Age : 21
```