

Summary

Day 2

Collections

```
var importantYears_Array = new[] { 570, 1492, 1789 };
```

```
var importantYears_List = new List<int> { 570, 1492, 1789 };
```

```
var importantYears_Hash = new HashSet<int> { 570, 1492, 1789 };
```

```
var prices = new Dictionary<char, int> {  
    { 'A', 35 },  
    { 'B', 45 },  
    { 'C', 68 },  
};
```

LINQ

```
var result = people
    .Where(p => p.Age > 32)
    .Select(p => $"{p.FirstName} is {p.Age} years old");
```

Classes

```
class Car
{
    public int Weight { get; }
    public string Color { get; }

    public Car(string c, int w)
    {
        Color = c;
        Weight = w;
    }

    public Car()
    {
        Color = "pink";
        Weight = 999;
    }
}
```

Properties - getter

```
public class Phone
{
    public decimal Price { get; set; }
    public decimal VAT  $\Rightarrow$  Price * 0.25M;
    public decimal TotalPrice  $\Rightarrow$  Price + VAT;
}
```

Properties - setter

```
class Tshirt
{
    private decimal _discount=0;

    public decimal Price { get; set; }

    public decimal Discount
    {
        get ⇒ _discount;
        set
        {
            if (value ≥ 0 && value ≤ 1)
            {
                _discount = value;
            }
        }
    }

    public decimal PriceWithDiscount ⇒ Price * (1 - Discount);
}
```