

# Module 9

## Inheritance

# Inheritance

```
class Animal
{
    public string Name { get; set; }
    public decimal Weight { get; set; }
}

class Mammal : Animal
{
    public FurSize FurSize { get; set; }
    public int NrOfTeeth { get; set; }
}

class Cat : Mammal
{
    public string FavoriteFish { get; set; }
}

class Dog : Mammal
{
    public int BarkLevel { get; set; }
}
```

# Inheritance

```
private static int CountNrOfTeeth(List<Mammal> mams)
{

}

}
```

# Inheritance

```
private static int CountNrOfTeeth(List<Mammal> mams)
{
    int teeth = 0;
    foreach (Mammal m in mams)
    {
        teeth += m.NrOfTeeth;
    }
    return teeth;
}
```

# Inheritance

```
abstract class Mammal
{
    public string Name { get; set; }
    public int Age { get; set; }
    public abstract double AgeInHumanYears();
}

class Cat : Mammal
{
    public string FavoriteFish { get; set; }

    public override double AgeInHumanYears()
    {
        return Age * 5;
    }
}
```