06 Numbers and Decimals

May 12, 2022

1 Numbers and Decimals

1.1 Working With Fixed Point types

The Decimal type is similar to doubles. They don't have as big a range, but they do have much higher precision.

What's the range of a decimal type?

```
[1]: decimal min = decimal.MinValue;
  decimal max = decimal.MaxValue;
  Console.WriteLine($"The range of the decimal type is {min} to {max}");
```

The range of the decimal type is -79228162514264337593543950335 to 79228162514264337593543950335

How do doubles and decimals compare in precision?

```
[2]: double a = 1.0;
double b = 3.0;
Console.WriteLine(a / b);

decimal c = 1.0M;
decimal d = 3.0M;
Console.WriteLine(c / d);
```

- 0.3333333333333333
- 0.3333333333333333333333333333

You can see that a decimals have a higher precision than doubles.

```
[]:
```