# Primitive Data Types and Variables

Apex has a number of primitive data types. Your data is stored in a variable matching one of these types, so in this tutorial you will learn a little about most of the available types and how to manipulate their values. **Use the Developer Console to execute all of the examples in this tutorial.**

Date Type	Description
String	Strings are set of characters and are enclosed in single quotes. They store text values such as a name or an address.
Boolean	Boolean values hold true or false values and you can use them to test whether a certain condition is true or false.
Time, Date and Datetime	Variables declared with any of these data types hold time, date, or time and date values combined.
Integer, Long, Double and Decimal	Variables declared with any of these data types hold numeric values.
Enum	An enumeration of constant values.

String


```
String myVariable = 'I am a string.';
```
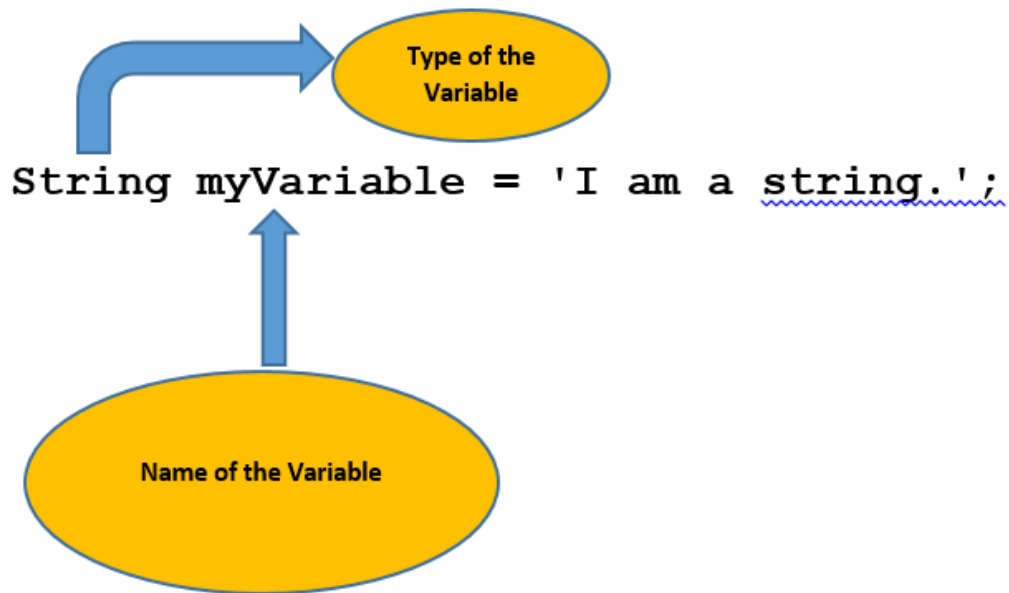
```
Date myDate = Date.today();
String myString = String.valueOf(myDate);
System.debug(myString);
```

The + operator acts as a concatenation operator when applied to strings.

```
System.debug( 'I am a string' + ' cheese');
```

The == and != operators act as a case insensitive comparisons. Execute the following to confirm that both the comparisons below return true:

```
String x = 'I am a string';
String y = 'I AM A STRING';
String z = 'Hello!';
System.debug (x == y);
System.debug (x != z);
```

The String class has many instance methods that you can use to manipulate or interrogate a string. Execute the following:

```
String x = 'The !shorn! sheep !sprang!.';
System.debug (x.endsWith('.'));
System.debug (x.length());
System.debug (x.substring(5,10));
System.debug (x.replaceAll ('!(.*?)!', '$1'));
```

This is the output.

```
[2] DEBUG true
[3] DEBUG 27
[4] DEBUG shorn
[5] DEBUG The shorn sheep sprang.
```