

Variable Types

sbyte	8bit	-128 to 127
byte	8bit	0 to 255
short	16bit	-32,768 to 32,767
ushort	16bit	0 to 65,535
int	32bit	-2,147,483,648 to 2,147,483,647
uint	32bit	0 to 4,294,967,295
long	64bit	-9,223,372,036,854,775,808 to 9,223,372,036,854,775,807
ulong	64bit	0 to 18,446,744,073,709,551,615
char	16bit	0 to 65535
float	32bit	-1.5 x 10 ⁴⁵ to 3.4 x 10 ³⁸
double	64bit	-5 x 10 ³²⁴ to 1.7 x 10 ³⁰⁸
decimal	128bit	-1028 to 7.9 x 10 ²⁸
bool	1 bit	True or False

Declare Variables

```
[type] [varName] = [value];
string word = "Hello";
int x = 42;
bool thing = true;
int y; // Initialize without defining
```

General Stuff

```
PascalCase
camelCase
method()
```

Selenium

FindElement()	find element on current page, selects first element if multiple exist
FindElements()	find all elements on page (generally to add to list or array)
Navigate()	navigate browser to a location

Hierarchy of Element Identifiers

```
Id
Name
ClassName
CssSelector
XPath
```

Git Commands

commit	save current version of your code
push	send all local commits to server
fetch	grab all commits from server
merge	update current branch to match server
pull	same as fetch and merge

Arithmetic Operators

+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Modulus / Remainder
++	Increment
--	Decrement

Assignment operators

=	Simple Assignment	A = 10
+=	Add and Assign	A += 10 is similar to A = A + 10
-=	Subtract and Assign	A -= 10 is similar to A = A - 10
*=	Multiply and Assign	A = 10 is similar to A = A * 10
/=	Divide and Assign	A /= 10 is similar to A = A / 10
int A = 10;		

Try

try	for code that has a possibility to fail
catch (Exception e)	code that runs if the try failed
finally	code that runs regardless of try pass or fail

Creating a Method

```
[privacy] [static?] [returnType] [name] ([varType?]
[varName?])
public static string helloWorld()
{
    return "word";
}
private void login(string user, string pass)
{
    driver.FindElement...
```

Method Return Types

[any data type]	method must return that data type
void	method doesn't return anything

Control Statements

if	run the next code block if condition is true
else if	run if previous if condition was false and this condition is true
else	run if all previous conditions were false
switch	checks variable and runs a case that matches
while loop	run the next code block until condition is false
do while loop	same as while, but checks condition at the end and runs at least once
for loop	run code block for a set number of times
foreach loop	run code block for every object in a Collection (List, Dictionary, etc.)
break	break out of current code block
continue	stop current iteration of loop and start next iteration

Relational operators

==	Equal to	A==B false
!=	Not Equal to	A!=B true
<	Less than	A<B true
>	Greater than	A>B false
<=	Less than Equal to	A<=B true if A=10,B=10
>=	Greater than Equal to	A>=B true if A=10,B=10

```
int A=10, B=20;
```

Logical operator

&&	AND	A&&B is true is both A and B are true
	OR	A B is true if either one is true
!=	NOT	!(A&&B) if the result of A&&B is true then the end result will be false

