

Founders Network

iOS Workshop #1

Variables

- Creating apps involves storing and working with different types of data. This is done by using *variables*. A *variable* stores a piece of *data*, and gives it a specific *name*.



```
NSString *myString=@"Coding is so much fun!";
```

Variables

- The variable will have a different *type* based on what they are storing.
 - **NSString**: Stores a string of characters (words or sentences)
 - **int**: Stores a integer
 - **BOOL**: Stores a boolean (YES or NO)
 - **double**: Stores a number with decimal places

```
NSString *myString=@"Coding is so much fun!";  
int number=12;  
BOOL myBool=YES;  
double decimalNumber=15.92;
```

Logical Operators

- At some point, you will have to compare the *data* that is being stored in two (or more) *variables*.
- We do this with *logical operators*

Logical Operators

Equal Operator: $a == b$: YES if a EQUALS b. NO if a does not EQUAL b.

Or Operator: $a || b$: YES if a is true OR if b is true. NO if both is false.

And Operator: $a \&\& b$: YES if both and AND b are true. NO if one is false.

Not Operator: $!a$: YES if a is false. NO if a is true.

Greater than: $a > b$:

Less than: $a < b$:

Greater than or equal to: $a \geq b$

Less than or equal to: $a \leq b$

If Else Statements

- An If statement is used when you want to run code only when a certain condition is met

```
int myInt=5;

if(myInt==5){
    //code here will run if myInt equals 5
}
else{
    //this runs if myInt doesn't equal 5
}
```

If, Else-If, Else Statements

```
int myInt=5;

if(myInt==5){
    //code here will run if myInt equals 5
}
else if (myInt==7){
    //code here will run if myInt doesn't equal 5
    but equals 7
}
else{
    //this runs if myInt doesn't equal 5 or 7
}
```

Arrays

- Arrays are collections of *elements*
- Each element in the array has an *index* starting at 0
- To access an element in the array we use square brackets []

```
//this creates an array of NSStrings  
NSArray *myArray=@[@"zero",@"one",@"two",@"three"];  
  
//this assigns the third item in the array to a new string variable  
NSString *twoString=myArray[2];  
//now twoString=@"two";
```


Loops

- Loops are used to run a section of code multiple times
- There are two different kinds of loops, *for* loop and *while* loop
- *For* loops are used when we know how many times we want the code to run
- *While* loops are used when the number of times to run the code is unknown

Loops

```
for (/* Create local variable*/ ; /* Condition to  
keep looping. */ ; /* End of loop expressions */){  
    // Do something.  
}
```

```
while(/*condition*/){  
    //code here will run until the condition is  
    false;  
}
```

Loops

```
for(int i=0;i<20;i++){  
    //code here will run 20 times  
}
```

```
int myInt=5;  
while(myInt==5){  
    //code here will run until the value of myInt is  
    changed;  
}
```

DEMO