MODULE 1: INTRODUCTION TO PROGRAMMING

Expressions, Statements, Blocks, and Branches

Common Questions

- Launching Visual Studio
- Google, Stackoverflow, etc.
- Push, pull, commit, what?

Data and Behavior

- Two aspects: Data and Behavior
  - **Data** that will hold information that our program will store
  - **Behavior** will manipulate that data and transform it into something valuable

Behavior in our application is all about running certain blocks of code in our application depending on what data we have.

Expressions and Statements

- An **expression** is a construct made up of variables, operators, and method invocations, which are constructed according to the syntax of the language, that evaluates to a single value.

Expressions and Statements

- A **statement** forms a complete unit of execution.

Code Blocks

- Code that needs to belong together as a single unit can be written in **blocks**.

```
{
    int length = 10;
    int width = 5;
    int area = 0;
    area = length * width;
}
```

Methods

- A **method** is a named block of code. It can take multiple values and return back a single value.

Access Modifier Return Type Descriptive Name Parameters

LET'S CODE!

Boolean Expressions

- A **boolean expression** is an expression that produces a boolean value (true or false) when evaluated

Comparison Operators

- A **boolean expression** is an expression that produces a boolean value (true or false) when evaluated

Operator	Meaning
==	Equals To
!=	Not Equal To
>	Greater Than
<	Less Than
>=	Greater Than or Equal To
<=	Less Than or Equal To

Logical Operators

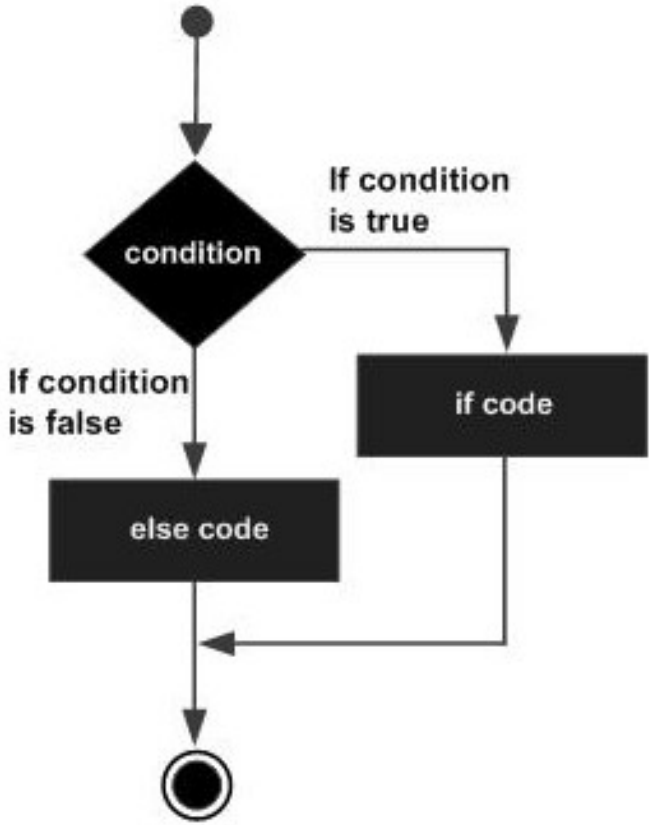
A	B	!A	A && B	A || B	A^B
True	True				
True	False				
False	True				
False	False				

Logical Operators

A	B	!A	A && B	A || B	A^B
True	**True**	False	True	True	False
True	**False**	False	False	True	True
False	**True**	True	False	True	True
False	**False**	True	False	False	False

If Statement

```
If (condition)
{
   <if code>
} else {
   <else code>
}
```



LET'S CODE!

WHAT QUESTIONS DO YOU HAVE?

Reading for tonight:

Arrays and Loops