**Section 3\_First Setup**

**Topics:**

1. Hello Word Project
2. Main Method
3. Running the Program
4. Printing in JAVA
5. Variables
6. Primitive Types
7. Casting
8. Operators
9. Logical Operators
10. Ternary Operator

**Hello Word Project**

**New Project:**

Src-> right click -> new -> java class

**Main Method**

Entry point for any java code

**Running the Program**

Click on the triangle button on the left side or right click and then select run

**Exit code 0:** means everything run successfully.

**Printing in JAVA**

System.out.println(“Hello Gold”);

Sout + enter = System.out.println(); (keyboard short cut)

int myFirstNumber = 5;  
  
System.*out*.println("myFirstNumber " + myFirstNumber);

**Variables**

To define a variable, we need to define the data type and a name.

**Primitive Types**

Boolean, byte, char, short, int, long, float, double

byte -128 to 127 (8 bits = 1 byte, width = 8)

short -32768 to 32767 (16 bits, width = 16)

int -2147483648 to 2147483647 (32 bits, width = 32)

long -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807

float 3.40282347 x 1038, 1.40239846 x 10-45

double 1.7976931348623157 x 10308, 4.9406564584124654 x 10-324

char only stores a single character e.g., char myChar = ’d’; (16 bits, width = 16)

boolean true and false

string

DON’T FORGET the L in long and F in float

long myLongValue = 100L;

float myFloat = 5.25f;

char Unicode

char myChar = 'd';

char myCharUniCode = '\u0044';

**Casting**

Converting a number from one type to another

byte newByte = (byte) ( minByte / 2);

( minByte / 2) = byte/int = int (thus the casting)

**Operators**

int result = 5;

result++; // 5+1

result--; // 5-1

result +=2 // result = result + 2;

**Logical Operators**

== Equal

!= Not Equal

&& AND

|| OR

&& VS &

&& Logical AND which operates on Boolean operands

& bit wise AND working at the bit level

|| VS |

|| Logical OR which operates on Boolean operands

| bit wise OR working at the bit level

**Ternary Operator**

condition ? expression1 : expression2.

Bool isCar = true;

Bool wasCar = isCar ? true : false;

Int age = 20;

Bool isOverEighteen = (age == 20) ? true : false;

Operator Precedence

Just use brackets or google it