**JAVA PROGRAMMING LEARNING FIRST SUMMARY**

***Supervisor: dtq111@gmail.com***

**Overview of Java PL**

Java is a high level programming language that was developed basically for two major reasons, The first is cause of adaptation to computing changes environment and uses, and the second is to implement refinements and improvements in the art of programming.

The development of Java was actually influenced from both C (taking its syntax), and C++ (taking its Object oriented programming concepts i.e use of classes) .JAVA possess some basic characteristics which are refer to as Buzz keywords of java. These are;

* Portability,
* Security,
* Simple
* Robust
* Architectural neural
* Multi treading,
* Annotation

And over the years Java PL has been upgraded with a lot of updates which happens every 6 months by the creators of JAVA PL, Currently now it's at JDK 11 (Java development kit), Each new JDK release possess new modifications and updates been added to the existing Java core programming methods. These modifications and updates includes new classes, syntaxes, keywords, and sometimes deprecations( this means certain keywords or functionalities been obsolete but still in the language)

Java compiles code as a bytecode first before it program is then interpreted and outputted to the programmer unlike other languages, It uses the JAVA virtual machine in the compilation of the source codes. Java is a strong specification data type language.. Not like any other language, and most importantly, JAVA is a case sensitive language

**Java Data Types**

The Java datatypes includes

* integers which are whole positive or negative numbers (which can either be byte, short, long, int).
* float(double): which are floating point decimal number
* Boolean(true or false),
* Char; which are basically string character but are unicode .
* Variable( Data)

**Java variable/Identifier**

Basically, unlike other programming languages except C and C++. Identifiers are variable names or class names used in java. Java is a type explicit declaration PL, that is the data type of variable data must be declared explicitly when working potential variable in Java. Examples of java variables are

int Number = 2020;

float pi = 3.142;

char name = “Tope”;

bool condition = true;

When writing Java, It's basically uses the concept of Object oriented programming in its syntax. And everything about Java program is confined to a class just like this basically;

Class MySummary {

public static void main(String args [] ) {

System.out.print(' I am learning Java for real but supervised by my boss')

}

}

Java works around class and with class members. Class members are called data (the raw data that is used in the program) and methods ( methods are the functions that controls how the datas are used and manipulated

Basically Java OOP works around encapsulation, inheritance, and polymorphism entirely.

Encapsulation: is basically abstraction. It's involves how the class hides datas, methods with access modifiers such as using public, private, protected from other class member

Inheritance, this is simply the process by which a sub class (below class) inherits the members (data, methods) of a super class

Polymorphism simply means in many forms. Like having a single interface where different forms of behavior can be all confined and they work independently but in a confined space together

**Control Flows in Java**

The control flows includes conditions that can be used in java. The most common one is for loop

For loop

Class ForLoop {

public static void main(String args [] ) {

int x;

for(x = 0; x < 10; x ++){

System.out.print(‘the content of this for loop is”);

System.out.println(x)

}

}

There are also other such as using the if, else if, and else conditional control too as well

Other code of java include:

Program to calculate Area of a circle

Class ExampleOne{

Public static void main(String args [] ) {

Int pi =3.142, int r = 3, Area;

Area = pi \* r \* r;

System.out.print( ‘Area of circle is “);

System.out.print(Area);

}

}