27/9: J a v a:

Programming language to write software for programmes. A programme example:

* Print “hello”
* Print “My Friends”

The computer will not be able to read this, so Java acts as compiler a.k.a. translator by converting this into a language which the computer can understand. Same with Python, C, C# etc.

IDE’s you can use to write the code my friend:

* Sublime, Notepad++
* Visual Studio Code

A Java example programme:

* Class First {
* Public static void main (String xyz []) {
* *This is the beginning of the programme, you create the programme itself in the below field*
* System.out.printLn (“hello”); *Will print ‘hello’*
* System.out.printLn(“my Friends”); *Will print ‘my Friends’*

In Java you have to use double quotes. When saving a file for these examples, save them as First.Java (the name of the class). “L” is lower case I just wrote capital so you don’t get confused like last time and think it’s an upper case i.

* ***Java is case sensitive. Save files as “.java” not “.Java”.***
* ***Last character of each line must be a semi-colon.***
* ***In Java “=” is an Assignment Operator. “A = 10” is assigning “10” to be stored into the memory location “A”. This is known as a “variable”.***
* ***To say something is equal to something use two equals sign***
* ***First however you must declare the variable before you can store it.***

***There are 2 types of data:***

* ***Numeric. Can also be divided into two types, Integers (whole numbers) and Floating Points/Floats (Decimals).***
* ***Non-numeric.***

***In Java there are 4 types of integers, what differs them is their capacity and how much space they take up in the RAM my friend:***

* ***Byte – 1 Byte***
* ***Short – 2 Bytes***
* ***Int. – 4 Bytes***
* ***Long – 8 Bytes***

***When making a variable in Java you need to tell it what type of variable it is and what size the variable is, for example: “int a”. Where an integer is stored in memory location “a” where it takes up 4 bytes of memory. “short b” stores an integer at memory location named “b” where it takes up 2 bytes of memory and so on.***

***1 Byte = 8 bits = Max Value 128. (Think MIDI and Bitcrushing).***

***Float can also be divided into two types:***

* ***Float – 4 bytes***
* ***Double – 8 bytes***
* ***Addition “+” is mathematical when both values are numeric, for non-numeric it will combine the two values.***
* ***“String:” Inputs a set of a characters in Java, much like the Char( command in SQL***
* ***Constant = Data in Java***
* ***Integer constant rules that an integer must be: digits 0-9 and be associated with a + or - sign.***
* ***Floats must contain 1 decimal point, digits 0-9, a plus + or - and be ended with “f”.***
* ***The rule for Double is digits 0-9, 1 decimal point and a + or – but no “f”.***

***Put the commands in the correct order.***

To run the file in the command window:

* C:\> Java Programmes> Javac First.java (PRESS ENTER)
* Computer will then have created a file called First.class
* C:\> Java Programmes> Java First (PRESS ENTER)

How to run the programme in Cmd:

* ***Users\admin>cd Desktop***
* ***C:\Users\admin\Desktop>cd Java Programmes***
* ***C:\Users\admin\Desktop\Java Programmes>javac Filename.java***
* ***C:\Users\admin\Desktop\Java Programmes>java Class name***

***Flow charts in Java:***

* ***Construct the logic of a Java programme using a Flow Chart***
* ***The Logic will most likely be set by Senior Devs***

***Symbols:***

* ***Circle (Start/End)***
* ***Arrow (Flow, duh)***
* ***Rectangle (Processing)***
* ***Rhombus (Input/Output)***
* ***Diamond (Condition)***

***Conditions in Java:***

* ***The “if” command.***
* ***“If temperature is above 40 degrees print “it’s hot””***
* ***If a variable is “not initialised” it means there is nothing in the variable.***
* ***You cannot have spaces in Variable Names!***