Data Types

byte	8 bits
short	16 bits
int	32 bits
long	64 bits
boolean	(no bit just true/ false)
char	16 bit unicode
float	32 bit decimal
double	64 bit decimal

Swap

notes

/n = new line

/t = tap

/" = "

/* = multiple

Make new class:

Click src > main > new > Java class (then type the code)

Arrays

```
- List use when shopping
- can make 2 ways:
int[] ex1 = new int [3];
ex1[0]= 1;
ex2[1]= 2;
ex3[2]= 3;
```

While loops

```
While loops
            int count = 0;
             while (count <
mylist.le nght) {
                    Sys -
tem.ou t.p rint( mylist [count]
+ " ");

                    count
++;
```

Do...While

```
- It make the code run and check
the condition.
(if the condition correct or not
and have 1 letter)
int count=0;
do{
            Sys tem.ou -
t.p rin t(count + " ");
            count ++ ;
}while (count < 10);
Ans 0 1 2 3 4 5 6 7 8 9
```

Java Programming Process

Java Programming Process (cont)

Java bytecodes - the java complier translate your java program to be an intermediate level, which can be executed only by JVM. JVM is the another run program of Java. It referred to Java runtime.

The standard environment is distribute by Oracle and is called the Java runtime environment (JRE).

Java runtime a program that execute compiled Java byte codes.

JDK (Java Development Kit) contains a complete class library of utilities that help you accomplish most common tasks.

String

String (same with array int but int use for the number but string use for word.)
String name = "Yuyu"

Char

Char is same with string but char for only letter!!
String letter = "A";

For loops

```
package com.company;
import java.l ang.Sy stem;
public class Main {
        public static void
swap(int[] list, int e1, int e2)
        {
                int temp;
                temp = list[e1];
                lis t[e1] =
list[e2];
                lis t[e2] =
temp;
                Sys tem.ou t.p -
rin t(" \nafter swap: ");
                for (int i = 0; i
< 5; i++)
                {
                        Sys -
tem.ou t.p rin t(l ist[i] + "
");
                }
        }
        public static void
main(S tring[] args)
        {
                int [] mylist =
new int [] {1, 2, 3, 4, 5};
                Sys tem.ou t.p -
rin t("b efore swap: ");
                for (int i = 0; i
< 5; i++)
                {
                        Sys -
tem.ou t.p rin t(m yli st[i] + "
");
                }
                swa p(m ylist,
1, 2);
                swa p(m ylist,
0, 4);
                swa p(m ylist,
1, 3);
        }
}
```

Java is a high level programming language that is readable by human called JVM (Java Virtual Machine).
Compiler - translate the program into machine language that can be executed directly on the computer.
(called native compiler because it produces on executable).

```
For loops (do everything in () )
                Cha -
racters
                String
name = " yuy u";
                        for
(char y : name.t oCh arA rra -
y()){
                                -
    Sys tem.ou t.p rint(y + "
");
                        }
                Ans y u y
u
                                -
                                i
nt [] mylist = {2,4,6};
                        f
or (int i = 0; i < mylist.le -
ngth; i++)
                        {
                                -
    Sys tem.ou t.p rint(
mylist [i] + " ");
                        }
                Ans 2 4 6
```