

• Arrays of Strings:

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4AL18EC005

```
public static void main (String[] args) {
```

```
    String[] words = new String [3];
```

```
    words [0] = "Hello";
```

```
    words [1] = "to";
```

```
    words [2] = "you";
```

```
    System.out.println (words [2]);
```

```
    String[] fruits = {"apple", "banana", "pear", "Kiwi"};
```

```
    for (String fruit: fruits) {
```

```
        System.out.println (fruit);
```

```
    }
```

```
    int value = 0;
```

```
    String text = null;
```

```
    System.out.println (text);
```

```
    String[] texts = new String [2];
```

```
    System.out.println (texts [0]);
```

```
    texts [0] = "one";
```

```
}
```

• Multidimensional Array:

```
int[] values = {3, 5, 2343};
```

```
System.out.println (values [2]);
```

```
int[][] grid = {
```

```
    {3, 5, 2343},
```

```
    {2, 4},
```

```
    {1, 2, 3, 4}
```

```
}
```

```
System.out.println (grid [1] [1]);
```

```
System.out.println (grid [0] [2]);
```

```
for (int row = 0; row < grid.length; row++) {
```

```
    for (int col = 0; col < grid [row].length; col++) {
```

```
        System.out.print (grid [row] [col] + " \t");
```

```
    }
    System.out.println ();
```

```
}
```

```
String[][] words = new String [2] [1]
```

```
System.out.println (words [0]);
```

```
words [0] = new String [3];
```

```
words [0] [1] = "hi there";
```

```
System.out.println (words [0] [1]);
```

```
}
```

```
}
```

```
}
```


• Classes and objects:

```
public class Redfawit {
```

class is a template or blueprint to create a object. Eg: class Person {

Classes can contain data, Subroutines (main) (methods), Instance variables (data or "State");

```
String name; int age
```

```
Person person1 = new Person();
```

```
person1.name = "Joe Bloggs";
```

```
person1.age = 37;
```

```
Person person2 = new Person();
```

```
person2.name = "Sarah Smith";
```

```
person2.age = 20;
```

```
System.out.println(person1.name);
```

• Methods:

```
void speak() {
```

```
System.out.println("Hello");
```

To import with variable

```
person1.speak();
```

```
person2.speak();
```

```
for (int i = 0; i < 3; i++) {
```

```
System.out.println("My name is: " + name + "and I am " + age + " years old");
```

```
}
```

```
}
```

```
void sayHello() {
```

```
System.out.println("Hello there!");
```

```
}
```

To execute

```
person1.sayHello();
```


- Getters and Return Values:

```

    return yearsLeft;
}

int getAge() {
    return age;
}

}

public class App {
    while concluding {
        int age = person1.getAge();
    }
}

```

- Method parameters :

Parameter is like a variable u pass in to a method!

```

class Robot {
    public void speak (String text) {
        System.out.println(text);
    }
    public void jump (int height) {
        System.out.println("Jumping: " + height);
    }
    public void move (String direction, double distance) {
        System.out.println("Moving " + distance +
            " metres in " + direction);
    }
}

Sam.speak("Hi I'm Sam.");
Sam.jump(7);
Sam.move("West", 12.2);
String greeting = "Hello there!";

```

- Setters and this:

```
frog frog1 = new Frog();  
frog1.name = "Bertie";  
frog1.age = 1;
```



```
System.out.println (obj1.getName());
```

```
this.name = name;
this.age = age; } "this"
return name;
return age;
```

Constructors:

```
class Machine {
```

Constructor is a special method to run the machine.

```
Machine machine1 = new Machine();
public Machine (String name) {
    System.out.println ("Seconds constructor
    running");
    this.name = name;
```

Static: class Thing {

```
    public final static int lucky Number;
    public String name;
    public static String descriptions;
    public void showName() {
    public static void showInfo() {
```

String Builder & String Formatting:

```
String builder = new String Builder.
s.append ("My name is Rger.")
.append (" ")
.append ("I am a skydiver.")
```

```
System.out.println (s.toString());
```

```
for (int i=0; i<20; i++) {
```

```
    System.out.printf ("%-21s %s\n", i,
        Here is some text");
```


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Date
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KI-CAED (PCB)

5. Create a library and put your own component in that library.

→ First search where the Kicad save the file. First Explore → C-drive → prog → 6 → Kicad share → Library → Default → Kicad library.

when update comes in Kicad so the files may change so it has to be saved.

Private → Kicad project → My Libraries.

Kicad → Schematics → Only folder → No Library

→ we have to create a library, so

export the component to the library.

Bring component → add simple component.

Delete the Body of resistor make it American version as $\text{---} \text{R} \text{---}$ to $\text{---} \text{M} \text{---}$

Kicad → My Libraries → Name it (My Library)

Preference → Library → Use defined search path.

→ Add → Drop box → Libraries → Choose folder.

→ No → Add Library → My Library → R is found.

Again → Preferences → R (component) → My Library

→ OK. →

• Create a custom footprint component:

Kicad → PCB drawing → Create new footprint

→ New module → Name of component footprint

MySOICn → OK, E-Edit → value^{xx} to U^{xx} asters are

replaced by U^1 and U^2 , place one pad

type SMD, rectangular on origin, keep $X_1 = 0.60 \text{ mm}$.

$Y_1 = 1.55 \text{ mm}$, $E = 1.27 \text{ mm}$, whenever we

move it spaces to 1.27 mm . we need

4 pads, $C = 5.40 \text{ mm}$. if it not there is

grid size we have to go for user defined.

we need 6 pads selectively.