

12/06/2020

Java

① To string Method:

```

public class App {
    private int id;
    private String name;
    public Frog (int id, String name) {
        this.id = id;
        this.name = name;
    }

    public String toString() {
        // StringBuilder sb = new StringBuilder();
        sb.append(id).append(":").append(name);
        return sb.toString();
    }
}

```

② Inheritance:

```

public class Machine {
    public void start() {
        System.out.println("Machine started.");
    }

    public void stop() {
        System.out.println("Machine stopped.");
    }
}

Car car1 = new Car();

public class Car extends Machine {
    String name = "Machine Type1";
    public void stop() {
        System.out.println("Machine stopped.");
    }
}

```


• Packages :

```
package com.avegprogramming.oceangame;
public class Aquarium {
}
```

• Interfaces :

```
public static void main (String[] args) {
    Machine mach1 = new Machine();
    mach1.start();

    Person person1 = new Person ("Bob");
    person1.greet();
    Info info1 = new machine();
    info1.showInfo();

    Info info2 = person1;
    info2.showInfo();
    System.out.println();
    outputInfo (mach1);
    outputInfo (person1);
}
```

• Public , Private , Protected.

1*

* private ... only within same class.

* public ... from anywhere.

* protected -- same class, subclass and same package.

* No modifier -- same package only.

Eg: public String name.

private String type.

private String size.

- Polymorphism:

```

public class App {
    public static void main (String [] args) {
        Plant plant1 = new plant();
        Tree tree = new tree();
        plant plant2 = tree;
        plant2.grow();
        tree.shedLeaves();
        // plant2.shedLeaves();
        doGrow (tree);
    }
    public static void doGrow (Plant plant) {
        plant.grow();
    }
}

```

- Encapsulation And the API DOCS :

```

class plant {
    public static final
    private String name;
    public String getName() {
        return name;
    }
    public void setName (String Name) {
        this.name = name;
    }
}

public class App {
    public static void main (String [] args) {
    }
}

```


• Casting Numerical values:

```

byte byteValue = 20;
short shortValue = 55;
int intValue = 88;
long longValue = 23355;
float floatValue = 8834.8f;
double doubleValue = 32.4;
byte value = (byte) 128;
System.out.println (byte value);
}

```

• Upcasting & Downcasting:

```

Machine machine1 = new Machine();
Camera camera1 = new Camera();
machine1.start();
camera1.start();
camera1.snap();

```

// Upcasting

```

Machine machine2 = camera1
machine2.start();

```

// error: machine2.snap();

// Downcasting

```

Machine machine3 = new Camera();
Camera camera2 = (Camera) machine3;
camera2.start();
camera2.snap();

```

• Generics:

```

ArrayList list = new ArrayList();
list.add ("apple");
list.add ("banana");
String fruit = (String) list.get(0);
System.out.println(fruit);

```


12/06/2020

KICAD (PCB)

Then draw silk screen, where the components has to be placed.

Grid select to give name and reference name. Save in new library and save. Drophox - Kicad - My Libraries - Name - My footprint Save.

• Add footprint search path:

we shd wave search path.

PCB new - preferences - library → User defined searchpath, Add → drophox - Kicad - My library, No → open → OK → Save → setting we can use it.

• Production files:

Manufacture called Guro Circuits.

Gerbers we can generate many file.

Gerber → file → F.Cu → B.Cu → F.Silks → B.Silks.

we need file for each and everything.

Edge Cuts also F.mask files are needed.

Exclude PCB edge layer from other layers. , Browse, Skouboard, MyTI → folder →

My Gerber, No, Plot, created, file is created, Generate drill files - desktop - Drill file → Switch.drl (file name),

My Gerber → login → create account.

→ Analyze the data → Give all the data. Continue.