Day-5

Agenda

Package

Class

Constructor

Object

Method

Variables

Package

It is Encapsulation mechanism to group related class and interface in to single module.

The main purpose of packages are ….

- To Resolve Naming conflict
- To provide Security to the class & interface . So that outside person can not access directly
- It improve the modularity of the application .
- In any JAVA program there should be only at most one package statement
- In any JAVA program the first non comment statement should be package statement .

Class

When ever we are writing our own java class compulsory we have to provide information about

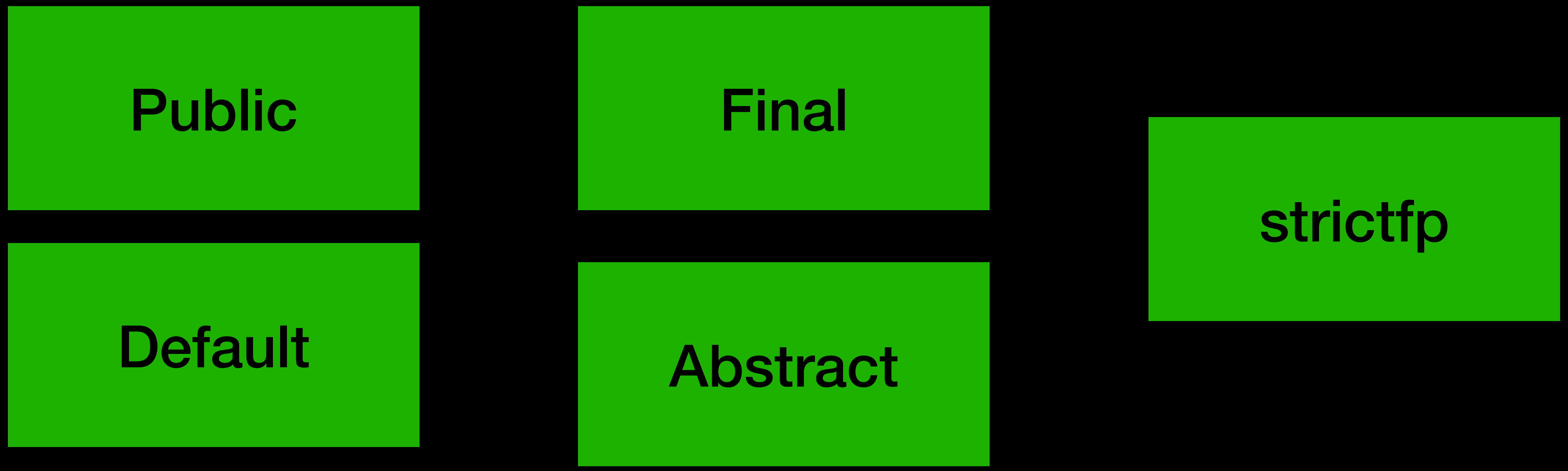
Our class to JVM

Whether our class can be accessible from anywhere or not

Whether child class creation is possible for our class or not

Whether instantiation is possible or not .

We can Specify this information by declaring with appropriate modifier . Which is ....



Public

Default

Final

Abstract

strictfp

Class

public

If a class declared as the public then we can access that class from anywhere .

default

If a class declared as default then we can access that class only with in current package

I.e from outside of the package we can not access .

Class

final

If a class declared as final then we can not create child class .

abstract

For any java class if we do not want instance , then we have to declare the class as abstract .

strictfp

If a class declared as strictfp then every concrete method in that class has to follow IEEE 754

Class

strictfp

If a class declared as strictfp then every concrete method in that class has to follow IEEE 754

Standers. So that we will get platform independent result .

This is specially to ensure that floating point operations give the same result on any platform.

As floating point value may vary from one platform to another .

It stands for strict floating point and introduced in JAVA 1.2

Constructor

Object creation is not enough compulsory we should perform initialization then only that Object is in a position to provide response properly .

When ever we are creating an object some peace of the code will be executed automatically to perform initialization . This piece of code is nothing but constructor . Hence the main objective of Constructor is to perform initialization for the newly created object .

Rule to define the constructor

The name of the class and name of the constructor must be matched

Return type concept is not applicable for constructor including void also.

The only applicable modifier for constructor are : “public, private, protected, default ”

Default Constructor

If we are not writing any constructor then compiler will always generate default constructor .

If we are writing at least one constructor then compiler would not generate default constructor .

Hence a class can contain either programmer written constructor or compiler generated Constructor but not both simultaneously

Object

Which holds the class member details

Syntax

```
ClassName ObjectName = new constructorOfClass();
```

TODO - access across the project

TODO - What do you mean by initialisation

BREAK
Back- 10:30 PM IST

Method

Refer Slide for definition

Public

If a method declared as the public then we can access that method anywhere .

Method

Abstract

Even though we do not about implementation still we can declare a method with abstract modifier. I.e abstract method can have only deceleration but not implementation Hence, Every abstract method deceleration should compulsory ends with “;”

Child class are responsible to provide implementation for present class method.

By declaring abstract method in parent class we can define guideline to the child class which describe the method those are to be compulsory by child class

Method

Private

If a method declared as the private then we can not access that method anywhere .

Scope of the method remains in same class.

Protected

Protected method can be accessible in definition class

Case-1

Accessing method from the same package but different class

Case-2

Accessing method from a different package extending parent class

Method

Final

If a method declared as final then we are not allow to override the method .

Default

When we do not use any keyword explicitly , java will set a default access to a given method

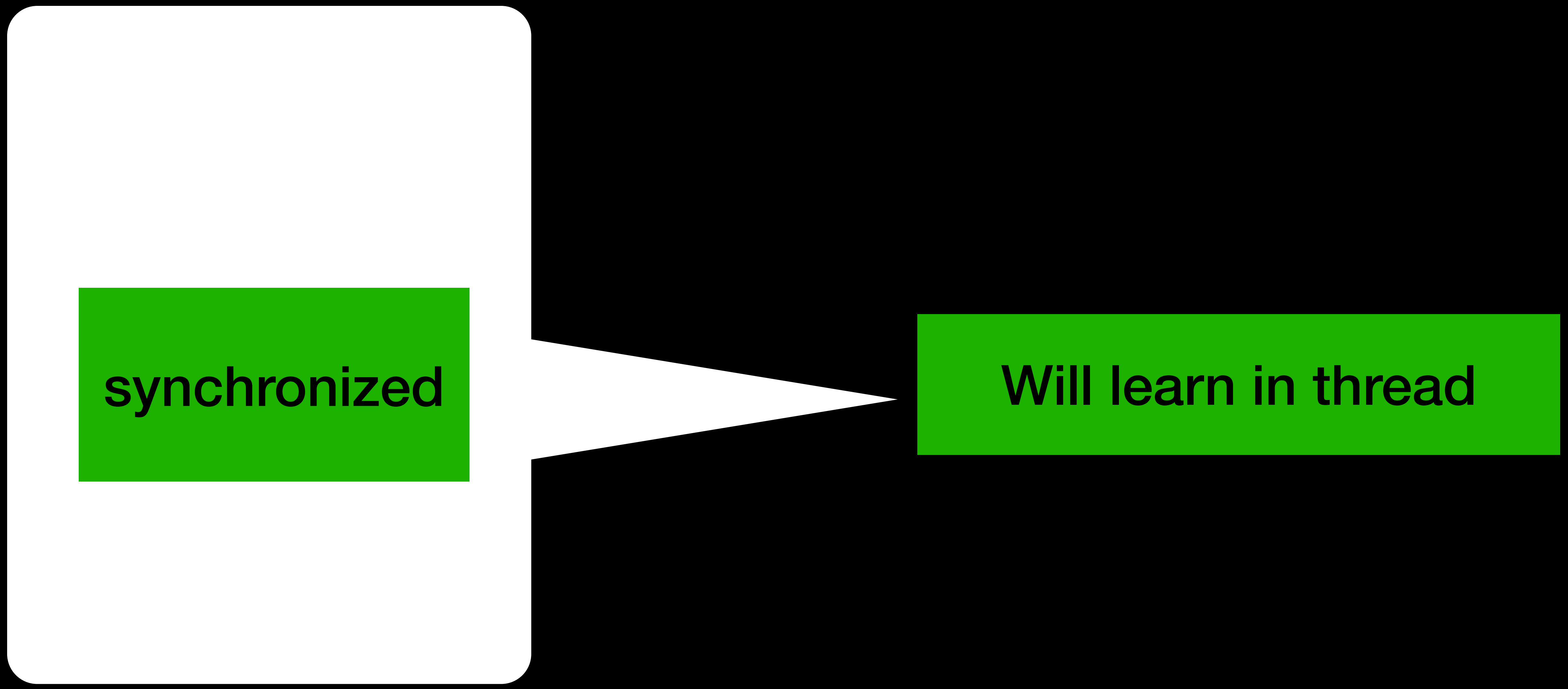
If a method declared as default then we can access that method only with in current package

I.e from outside of the package we can not access .

Method

Static

If a method declared as static then we call this method with class name only no object required .



synchronized

Will learn in thread

Variables

Public

Default

private

Protected

Final

Static

Transient

volatile