**Summary Week 6**

**-PACKAGE**

A **Package** can be defined as a grouping of related types (classes, interfaces, enumerations and annotations ) providing access protection and namespace management.

We have two **types of packages in Java**: built-in packages and the packages we can create (also known as user defined package).

We declare a package with the keyword **Package** and import with the keyword **import,**

They are usually the first statement in Java program. When use together the declaration or Package statement comes before the import statement.

A class can have just one Package declaration.

**Example of statement:**

**-For Import**

import java.util.Scanner

-**For Package**

Package letmecalculate

**-OOP in JAVA**

OOP stands for **Object-Oriented Programming**.

Object-oriented programming is about creating objects that contain both data and methods.

Object-oriented programming has several advantages over procedural programming:

* OOP is faster and easier to execute
* OOP provides a clear structure for the programs
* OOP helps to keep the Java code DRY "Don't Repeat Yourself", and makes the code easier to maintain, modify and debug
* OOP makes it possible to create full reusable applications with less code and shorter development time

**Syntax** ClassName ReferenceVariable = new ClassName();

* **What is the Difference Between Object and Class in Java**

A **Class** in object oriented programming is a blueprint or prototype that defines the variables and the methods (functions) common to all Java Objects of a certain kind.

An **object** in OOPS is a specimen of a class. Software objects are often used to model real-world objects you find in everyday life.

* **CONSTRUCTOR**

A constructor in Java is a **special method** that is used to initialize objects. The constructor is called when an object of a class is created. It can be used to set initial values for object attributes:

Constructor has same name as the class and looks like this in a java code.

Example

public class MyClass{

//This is the constructor

MyClass(){

}

..

}

There are three type of Constructor

### -Default constructor

### -no-arg constructor:

### -Parameterized constructor

## Constructor Chaining: is when a constructor call another constructor from the same class.

## Super()

The **super** keyword refers to superclass (parent) objects. It is used to call superclass methods, and to access the superclass constructor. The most common use of the **super** keyword is to eliminate the confusion between superclasses and subclasses that have methods with the same name.

You can also say that the compiler inserts a super(); statement at the beginning of child class constructor