Inheritance

- It is used to represent ISA relationship.
- In inheritance, if in the child class, if you don't call parent class parametrized constructor, then automatically it calls default constructor of parent
- Parent class constructor can be called bu using super keyword, and it has to be the first line of child class constructor
- It increases reusability of the code
- It reduces typing efforts of developer
- It makes your code more maintainable, finding errors will be easy

Package

- To better organize the classes
- Importing related classes becomes very easy
- It avoids naming collision, so we can create 2 classes with same name in different packages.

pack1-→Acoounts, fully qualified name of the class is pack1.Accounts

Pack2-→Accounts fully qualified name of the class is pack2.Accounts

When you want to use a class outside the package, then the class must be public

And it is necessary to import the class.

Polymorphism

1. If you have many methods with same name, then it is called as polymorphism
2. To use polymorphism, we can use function overloading or function overriding
3. Function overloading is always static polymorphism
4. But if you are using function overriding, and you are using parent class reference pointing to child class object, then it is dynamic polymorphism, othe wise it is static polymorphism

Advantages

1. It reduces the size of code
2. It also makes client to remember only one function to perform similar task in diffetent child classes.

Abstract class

1. The class for which you don't want to allow user to create object, then make that class as abstract
2. If the class contains abstract method then it is mandatory to make the class abstract