Discussion from previous class

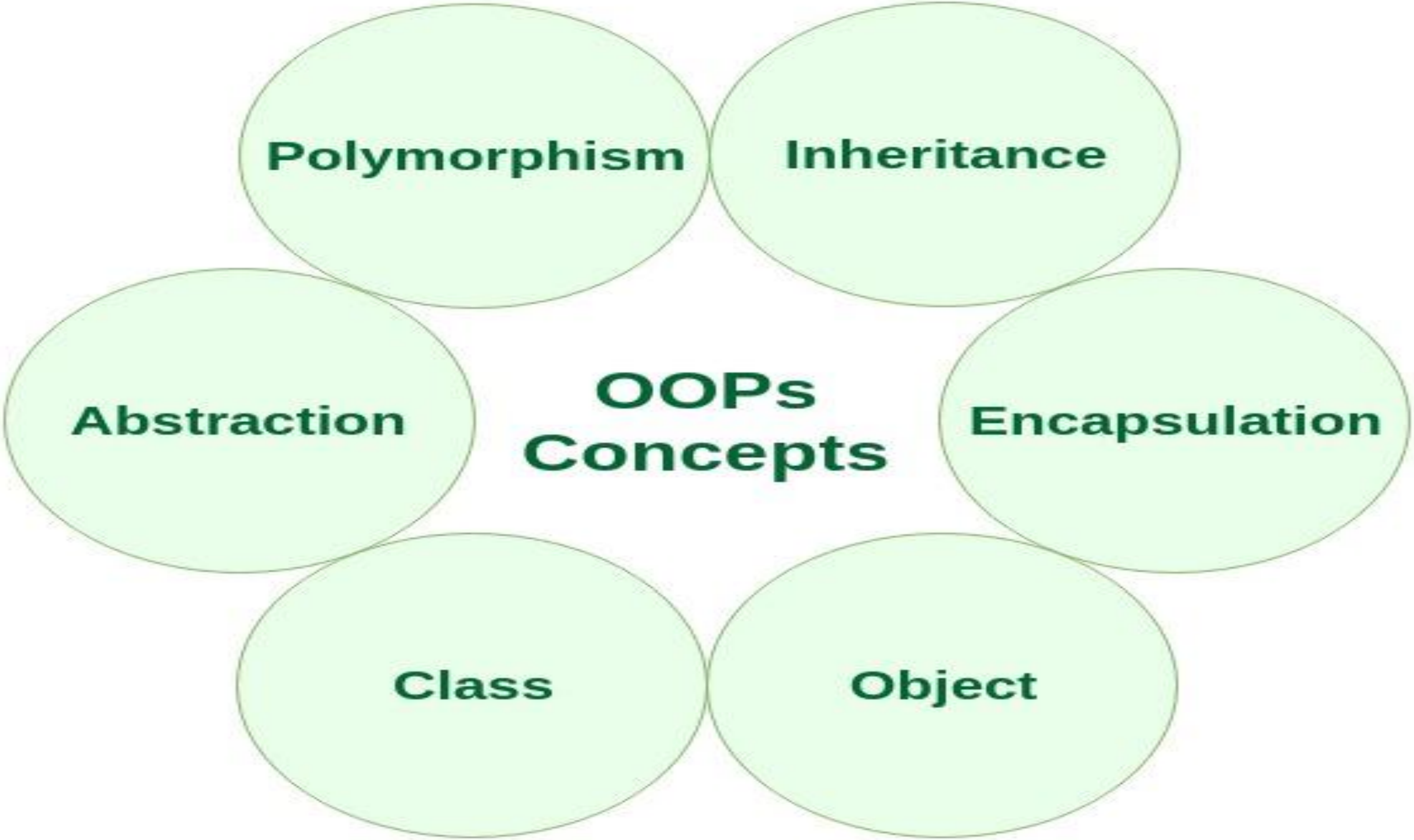
- Static vs Instance methods
    - Statics methods belong to class, memory allocated once.
    - Can be accessed using class name, no need to create object.
    - Static methods are binded at compile time. (Objects are created at runtime)
    - Compile-time is the instance where the code you entered is converted to executable while Run-time is the instance where the executable is running.

Wrapper classes in Java

- convert primitive data types into objects
- The classes in java.util package and data structures in collection framework handles only objects .
- Ex - Integer for int, Float for float , Double for double, etc.
- char ch = ‘a’;   Character a = ch; //autoboxing
- Character ch = ‘a’; char a = ch; //unboxing

Input in java - Scanner Class

- Scanner class (java.util package) (easier)
- BufferedReader (java.io package) (faster)



OOPs Concepts

Polymorphism

Inheritance

Abstraction

Encapsulation

Class

Object

Encapsulation

- wrapping up of data under a single unit
- the data in a class is hidden from other classes, so it is also known as **data-hiding**.
- Encapsulation can be achieved by: Declaring all the variables in the class as private and writing public methods in the class to set and get the values of variables

Why are data members declared private?

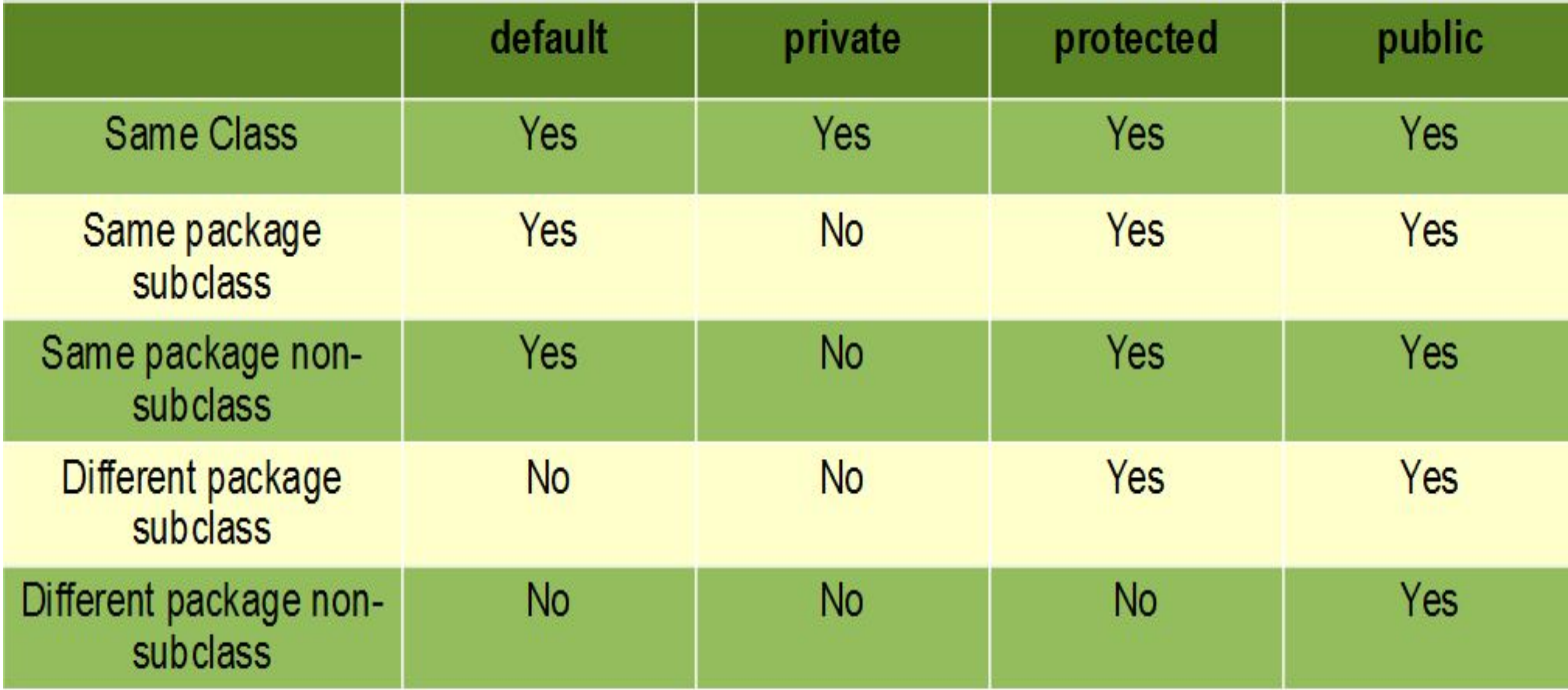
Why are data members declared private ?

- Prevent illegal change of data.
- Control over data.

Inheritance

- one class is allow to inherit the features(fields and methods) of another class.
  - Super Class/ Base Class/ Parent Class
  - Sub Class/ Derived Class/ Child Class
  - Object class is parent/ancestor to all classes
  - Reusability
  - Types Of Inheritance (isMultiple Inheritance allowed in java ?)

Access Modifiers



	default	private	protected	public
Same Class	Yes	Yes	Yes	Yes
Same package subclass	Yes	No	Yes	Yes
Same package non-subclass	Yes	No	Yes	Yes
Different package subclass	No	No	Yes	Yes
Different package non-subclass	No	No	No	Yes