BCA Sem-V

Subject:-Java

Topic:- Methods(By Sant Pandey)

A **Java method** is a collection of statements that are grouped together to perform an operation

We can  create our own **methods** with or without return values, invoke a **method** with or without parameters, and apply **method** abstraction in the program design.

In other words,

A method is a collection of statements that perform some specific task and return the result to the caller. A method can perform some specific task without returning anything. Methods allow us to **reuse** the code without retyping the code. In Java, every method must be part of some class which is different from languages like C, C++, and Python.  
Methods are **time savers**and help us to **reuse** the code without retyping the code.

**Method Declaration**

In general, method declarations has six components :

* **Modifier**-: Defines **access type** of the method i.e. from where it can be accessed in your application. In Java, there 4 type of the access specifiers.
  + public: accessible in all class in your application.
  + protected: accessible within the class in which it is defined and in its **subclass(es)**
  + private: accessible only within the class in which it is defined.
  + default (declared/defined without using any modifier) : accessible within same class and package within which its class is defined.
* **The return type** : The data type of the value returned by the method or void if does not return a value.
* **Method Name** : the rules for field names apply to method names as well, but the convention is a little different.
* **Parameter list**: Comma separated list of the input parameters are defined, preceded with their data type, within the enclosed parenthesis. If there are no parameters, you must use empty parentheses ().
* **Exception list**: The exceptions you expect by the method can throw, you can specify these exception(s).
* **Method body**: it is enclosed between braces. The code you need to be executed to perform your intended operations.

