

Assignment-6

1.What is private access specifier?

Private: The access level of a private modifier is only within the class. It cannot be accessed from outside the class. Private access specifier allows a class to hide its member variables and member functions from other functions and objects. Only functions of the same class can access its private members. Even an instance of a class cannot access its private members.

2.what are getter and setter methods? why do we need them?

Getters and setters are used to protect your data, particularly when creating classes. For each instance variable, a getter method returns its value while a setter method sets or updates its value. Given this, getters and setters are also known as accessors and mutators, respectively.

3.why this keyword in the setter method?

For example, in the following code:

```
private int id;
```

```
public void setID(int ID) { this.id = ID; } public void getID() { return id; }
```

In setters, we have a method argument with the same name as the instance variable . In the code, one ID and one id, but we could have called them both id. Then this. would be required to distinguish the instance variable from the method argument

4.Difference between local variable and member variable/instance variable.

Instance variable	Local variable
A variable that is inside the class but outside the method.	A variable that is used inside the method.
It is possible to use access modifiers	It is not possible to use access modifiers
Can have default values	Do not have default values
Instance variables create when creating an object	Local variables create when entering a method or constructor

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5.What is reference variable?

A reference variable is a variable that points to an object of a given class, letting you access the value of an object. An object is a compound data structure that holds values that you can manipulate. A reference variable does not store its own values.

6. Syntax of creating an object?

The syntax for creating an object is: `ClassName refvariable = new ClassName();`

7. Explain in detail what happens when we create an object?

When an object is created, memory is allocated to hold the object properties. An object reference pointing to that memory location is also created. To use the object in the future, that object reference has to be stored as a local variable or as an object member variable.

8.What is class?

Class is a template used to create objects and to define object data types and methods. Classes are categories, and objects are items within each category. **All class objects should have the basic class properties.**

9.What is object?

object is a member (also called an instance) of a Java class. It be created to call a non-static function which are not present inside the Main Method but present inside the Class and also provide the name to the space which is being used to store the data.

10.What are the default values of all the datatypes

Data Type	Defult value
int	0
short	0
byte	0
float	0.0f
double	0.0d
char	'u000'
boolean	False
Long	0L
string	null

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11. Difference between the static methods and instance method?

Instance method	Static method
Instance method are used to perform repetitive tasks like reading records from the file reading records from the DBMS etc..	Static method are used to perform single operation like opening the files, obtaining a DBMS connection etc..
Method definition does not require a static keyword to start. Syntax: void not_salary(parameters if any) { Block of statement; }	Method definition must start with static keyword Syntax: Static void basic_salary(parameters if any) { Block of statement; }
Each of every instance method must be accessed with the respective Object name	Each of every static method must be accessed with the respective Class name
Result of instance method is not shared Every method has its own copy of instance method	Result of static method is always shared by Object of the same class

12.Syntax of accessing the member variable in the main?

Syntax: ObjectReference.VariableName.

13.Syntax of instance method definition?

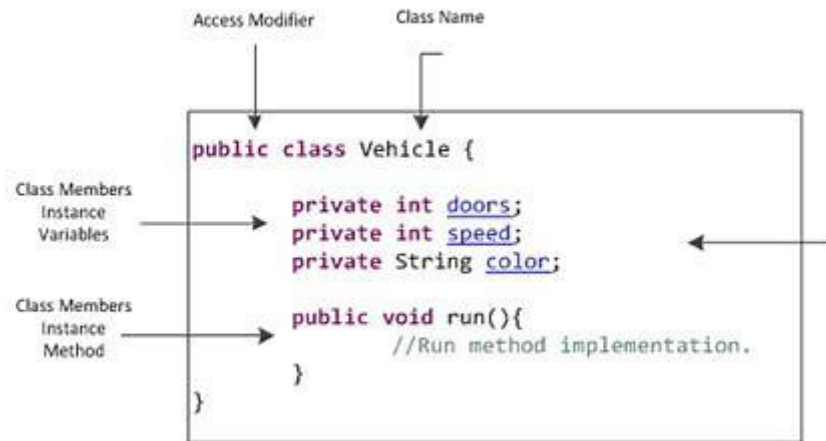
Syntax: Access _specifier void method_name()

{

Statement;

}

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Example:

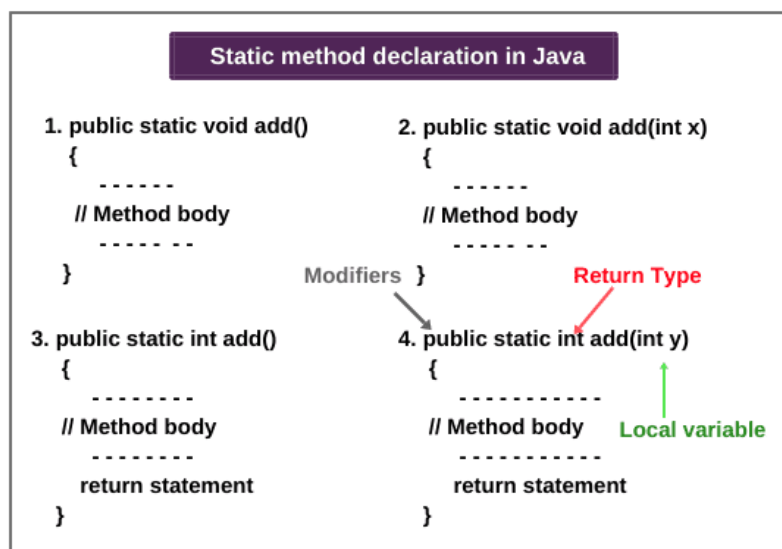
14. Syntax of static method definition?

Syntax: Access_modifier static void methodName()

{

// Method body.

}



Example:

15. Difference between actual parameter and formal parameter?

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Actual Parameters	Formal Parameters
Defined when it is invoked.	Defined when the function is called.
Passed on calling a function	They will be in the called function.
Data types will not be mentioned.	The data type must be included.
They are written in the function call.	They are written in the function definition.
They may be constant values.	They can be local variables.

16. Why we need the parameter or arguments to the methods?

An argument is a value passed to a function when the function is called. Whenever any function is called during the execution of the program there are some values passed with the function. A parameter is a variable used to define a particular value during a function definition. Whenever we define a function we introduce our compiler with some variables that are being used in the running of that function.

17. Why we need the return statement and return type to the method

A return statement causes the program control to transfer back to the caller of a method. Every method in Java is declared with a return type and it is mandatory for all Java methods. A return type may be a primitive type like int, float, double, a reference type or void type (returns nothing).

18. Method can be private. (true or false)?

True, we can declare the main method as private in Java.