

1.)What is private access specifier?

Private access specifier makes its member variables and member functions invisible to other(outer) class, which means the member variables and functions which are declared as private can be accessed only within the class not outside its class.

2.)What are getter and setter methods?why we need them?

Getter and Setter methods are instance methods which is used to initialize and access the private member variables outside the class.

3.)Why this keyword in setter method?

The keyword "this" is used in setter method to refer to the current object.

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

LOCAL VARIABLE

*Local variables are variables which are declared within a method .

*They won't get any default value and they must be initialized.

INSTANCE VARIABLE/MEMBER VARIABLE

*Instance variables are variables which are declared inside the class but outside the method

*Instance variables are part of object

*Instance variables always get default value.

5.)What is reference variable?

Reference variable is a variable that points to the object created of a given class and allows to access the value of an object.

6.)Syntax for creating object

ClassName referencevariable_name; *reference variable should be same as a class name with first letter uppercase.

referencevariable_name=new ClassName();

Example: Student student; //creates reference variable that points to the memory location
student=new student() ;//creates the object of the class (allocates the memory for the class properties).

7.) Explain in details what happens when we create an object

When we create an object ,memory is allocated to object to hold the properties of the object and also the reference is created which points to the that memory location.

8.) What is class?

Class is the blueprint of an object and it is a logical entity.

9.) what is object?

Object is an instance of a class and it is real time entity.

10.) What are the default values of all data types?

| Data type | Default value |
|-----------|---------------|
| boolean | false |
| char | '\u0000' |
| byte | 0 |
| int | 0 |
| short | 0 |
| float | 0.0f |
| long | 0L |
| double | 0.0d |
| String | null |

11.) Difference between static methods and instance methods

Static methods:

static methods do not need object creation to be called.
they can be called with class name or by the method name itself.

Instance methods:

Instance methods are the methods which are not declared as static.
they can be called only with the help of object.

12.) Syntax of accessing member variable in main method.

object.variableName;

Example: student.studentName;

13.) Syntax of instance method definition

```
Access_specifier return_type methodName()  
{  
    method body;  
}
```

* Access specifier -- specifies the scope of the method that is who can access this method.

* return_type -- returns a value of specified data type from the method.

* methodName -- should be given as per the purpose and should follow the following method naming conventions.

* method body -- set of statements performing particular task can be given in the method body.

15.) Syntax of static method definition

```
Access_modifier static return_type methodName()  
{  
    method body;  
}
```

- * Access specifier -- specifies the scope of the method that is who can access this method.
- * static--its is non access modifier and makes the method to be accessed without creating object.
- * return_type --returns a value of specified data type from the method.
- * methodName--should be given as per the purpose and should following method naming conventions.
- * method body-- set of statements performing particular task can be given in the method body.

16.)Difference between actual parameter and formal parameter

- * Actual parameters are those parameters that are specified in the calling function.
- * Formal parameters are those parameters that are declared in the called function.

17.)Why we need the parameter or arguments to the methods?

- * We need parameters to the methods to an input to the method.
- * It is necessary to pass the data to methods that are working with data.

18.)Why we need the return statement and return type to the method?

- * Return statement used to return the value from a method and the flow of program execution comes out of it goes back to the caller method.
- * Return type returns a value of expected data type from the method

19.) Method can be private:True or false

True.

20.)What is the error message we get if we access private variable or method outside the class?

The field Class.variable is not visible;

Example:The field Student rollNo is not visible;