1. What is Encapsulation in Java? Why is it called Data Hiding?

Ans: Binding of data and corresponding methods into a single unit is called Encapsulation.

In encapsulation, the variables of a class will be hidden from other classes, and can be accessed only through the methods of their current class. Therefore, it is also known as data hiding.

1. What are the important features of Encapsulation?

Ans: Features of Encapsulation:

* We can achieve security.
* Enhancement becomes easy.
* Maintainability and modularisation become easy.
* It provides flexibility to the user to use the system very easily.

1. What are getter and setter methods in Java? Explain with an example.

Ans: Getter methods are used to get the value form the instance variables of the class.

Setter methods are used to set the value of the instance variables of the class.

class Test{

private int value;

Test(int value){

this.value = value;

}

public int getValue() {

return value;

}

public void setValue(int value) {

this.value = value;

}

}

public class Question3 {

public static void main(String[] args) {

Test obj = new Test(10);

System.out.println("Initially: " + obj.getValue());

obj.setValue(100);

System.out.println("Now: " + obj.getValue());

}

}

1. What is the use of this keyword? Explain with an example.

Ans: class Test{

private int value;

Test(int value){

this.value = value;

}

public int getValue() {

return value;

}

public void setValue(int value) {

this.value = value;

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public class Question3 {

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As you in the program, the variable “value” is local variable in the setter and getter and this value should be assigned to the instance variable of Test class.

Inside the methods the JVM will always give preference only for the local variable, this problem is termed as shadowing problem.

To resolve the problem we need to use “this” keyword, which refers to the current object or instance.

1. What is the advantages of Encapsulation?

Ans: Advantages of Encapsulation:

* We can achieve security.
* Enhancement becomes easy.
* Maintainability and modularisation become easy.
* It provides flexibility to the user to use the system very easily.

1. How to achieve encapsulation in Java? Give an example.

Ans: Encapsulation in Java can be achieved by:

* Declaring the variables of a class as private.
* Providing public setter and getter methods to modify and view the variables values.

class Test{

private int value;

Test(int value){

this.value = value;

}

public int getValue() {

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