**DAILY ASSESSMENT FORMAT**

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| **Date:** | **11-06-2020** | **Name:** | **Kiran N** |
| **Course:** | **JAVA** | **USN:** | **4al16ec031** |
| **Topic:** | **Programming core java**  **1.The to String Method**  **2.Inheritance**  **3.Packages**  **4.Interfaces**  **5.Public, Private, Protected**  **6.Polymorphism**  **7.Encapsulation and the API Docs**  **8.Casting Numerical Values**  **9.Upcasting and Downcasting** | **Semester & Section:** | **8th and A** |
| **Github Repository:** | **Kiran-course** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Programming**    Java toString() method  If you want to represent any object as a string, toString() method comes into existence.  The toString() method returns the string representation of the object.  If you print any object, java compiler internally invokes the toString() method on the object. So  overriding the toString() method, returns the desired output, it can be the state of an object etc. depends on your implementation.  Advantage of Java toString() method By overriding the toString() method of the Object class, we can return values of the object, so we don't need to write much code.  Understanding problem without toString() method  Let's see the simple code that prints reference.  1.class Student{  2.int roll no;  3.String name;  4. String city;  5.Student(int roll no, String name, String city){  7.this.rollno=rollno;  8.this.name=name;  9.this.city=city;  }  Private access modifier  The scope of private modifier is limited to the class only.  1.Private Data members and methods are only accessible within the class  2.Class and Interface cannot be declared as private  3.If a class has private constructor then you cannot create the object of that class from outside of the class. Let’s see an example to understand this:  Private access modifier example in java  This example throws compilation error because we are trying to access the private data member and  method of class ABC in the class Example. The private data member and method are only accessible  within the class.  class  ABC  {  private  double num =100;  private int square  (  int a  {  return a \*a;  }  }  Public class  Example  {  Public static void main  (  String args[])  {  ABC obj =new ABC();  System.out.println(obj.num);  System.out.println(obj.square(10));  }  }  Protected Access Modifier  Protected data member and method are only accessible by the classes of the same package and the  subclasses present in any package. You can also say that the protected access modifier is similar to  default access modifier with one exception that it has visibility in sub classes.  Classes cannot be declared protected. This access modifier is generally used in a parent child  relationship.  Protected access modifier example in Java  In this example the class Test which is present in another package is able to call  the  addTwoNumbers()  method, which is declared protected. This is because the Test class extends class  Addition and the protected modifier allows the access of protected members in subclasses (in any  packages).  Addition.java  package  abcpackage;  public class  Addition  {  Protected int  addTwoNumbers(Int a, int b)  {  return a+b;  }  }  Test.java  Package xyzpackage;  Import abcpackage.\*;  Class Test  extends  Addition  {  Public static void  main  (  String args[]){  Test obj = newTest ();  System.out.println(obj.addTwoNumbers(11 ,22));  }  }  Public access modifier  The members, methods and classes that are declared public can be accessed from anywhere. This  modifier doesn’t put any restriction on the access.  public access modifier example in java  Lets take the same example that we have seen above but this time the method addTwoNumbers() has public modifier and class Test is able to access this method without even extending the Addition class.  This is because public modifier has visibility everywhere.  Addition.java  package abcpackage;  publicclass  Addition  {  Public int addTwoNumbers  (int a, int b){  Return a + b;  }  }  Test.java package xyzpackage;  import abcpackage.\*;  classTest  {  Public static void  main  (  String args[]){Addition obj =new Addition ();  System.out.println(obj.addTwoNumbers(100, 1));  }  }  Public static void main(String args[]){  Student s1=new Student( 101, "Raj", "lucknow" );  Student s2= new Student( 102, "Vijay", "ghaziabad");  System.out.println(s1); //compiler writes here  s1.toString()  System.out.println(s2); //compiler writes here  s2.toString()  }  } |