***Dt : 4/5/2022***

***\*imp***

***2.Non-Primitive DataTypes:***

***=>The 'Group Valued data formats' are known as Non-Primitive***

***datatypes or Referential DataTypes.***

***=>These Non-Primitive DataTypes are categorized into following:***

***(a)Class***

***(b)Interface***

***(c)Array***

***(d)Enum***

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***Object Oriented Programming:***

***=>The process of Constructing programs using Class-Object***

***concept is known as Object Oriented Programming.***

***=>In Object Oriented Programming we control and manage***

***NonPrimitive DataTypes.(we work with NonPrimitive DataTypes)***

***(a)Class***

***(b)Interface***

***(c)Array***

***(d)Enum***

***(a)Class:***

***=>Class in Java is a 'Structured Layout' generating objects.***

***=>Class in Java can hold Variables,methods and main()***

***(Class in Java can hold Variables and Methods)***

***=>Classes in Java are categorized into two types:***

***(i)Pre-defined classes***

***(ii)User defined classes***

***(i)Pre-defined classes:***

***=>The classes which are available from JavaLib are known as***

***Pre-defined classes or Built-in classes.***

***Ex:***

***String***

***System***

***(ii)User defined classes:***

***=>The classes which are defined by the programmer are known as***

***User defined Classes***

***Ex:***

***Display***

***Addition***

***DataTypes***

***StudentResult***

***============================================================***

***\*imp***

***define 'Object'?***

***=>Object is a Storage(memory) related to a class holding the***

***members of class.***

***=>we use 'new' keyword in Java to create objects.***

***syntax of Object creation:***

***Class\_name object\_name = new Class\_name();***

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***Variables in Java:***

***=>variables are the data holders which hold data in the programs.***

***=>Based on DataTypes the variables are categorized into two***

***types:***

***(i)Primitive DataType variables***

***(ii)NonPrimitive DataType variables***

***(i)Primitive DataType variables:***

***=>The variables which are declared with Primitive DataTypes***

***like byte,short,int,long,float,double,char and boolean are known***

***as Primitive DataType Variables.***

***=>These Primitive DataType variables will hold Values.***

***(ii)NonPrimitive DataType variables:***

***=>The variables which are declared with NonPrimitive DataTypes***

***like Class,Interface,Array and Enum are known as NonPrimitive***

***DataType variables.***

***=>These NonPrimitive DataType variables will hold Object***

***references.(Object Addresses)***

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***=>Based on 'static' keyword the variables are categorized into***

***two types:***

***(a)Static variables***

***(b)NonStatic Variables***

***(a)Static variables:***

***=>The variables which are declared with 'static' keyword are***

***known as static variables or class variables.***

***=>These static variables will get the memory within the class***

***while class loding and can be accessed with Class\_name.***

***(b)NonStatic Variables:***

***=>The variables which are declared without 'static' are known***

***NonStatic Variables.***

***=>These NonStatic variables are categorized into two types:***

***(i)Instance variables***

***(ii)Local Variables***

***(i)Instance variables:***

***=>The NonStatic variables which are declared outside the***

***methods are known as Instance Variables or Object Variables.***

***=>These Instance Variables will get the memory within the***

***object while Object creation and can be accessed with Object\_name.***

***(ii)Local Variables:***

***=>The NonStatic variables which are declared inside the methods***

***are known as Local Variables or Method Variables.***

***=>These Local Variables will get the memory within the method***

***while method\_execution.***

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***Program : DemoVariables.java***

***class DemoVariables***

***{***

***static int a=12;***

***int b=13;***

***public static void main(String[] args)***

***{***

***int c=14;***

***System.out.println("The value a="+DemoVariables.a);***

***DemoVariables ob = new DemoVariables();***

***System.out.println("The value b="+ob.b);***

***System.out.println("The value c="+c);***

***}***

***}***

***o/p:***

***The value a=12***

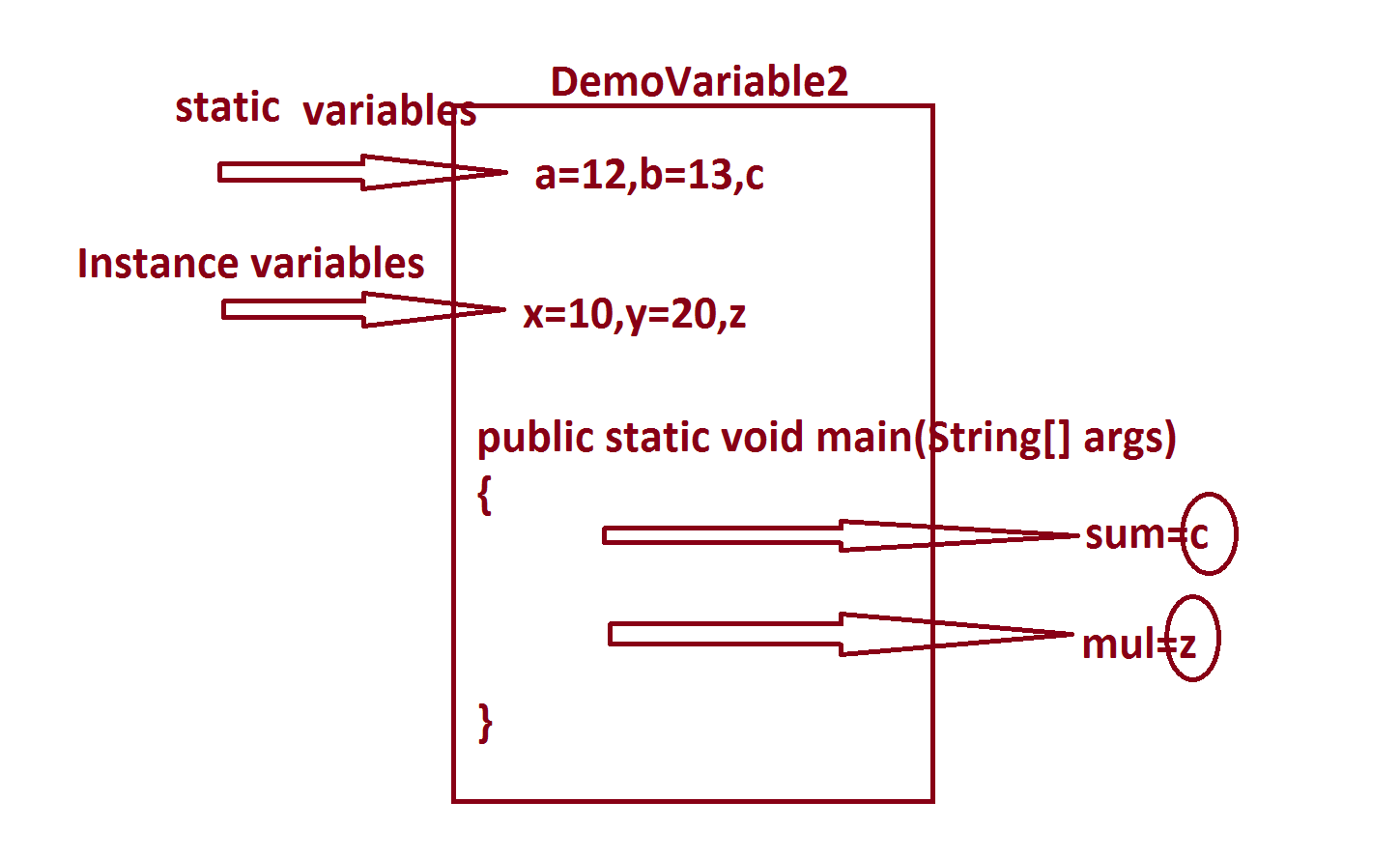
***The value b=13***

***The value c=14***

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***Assignment:***

***Layout:***

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