## CDAC Mumbai PG-DAC August 24

## **Assignment No-4**

1) Write a program that demonstrates widening conversion from int to double and prints the result. package org.Example2;

```
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                                                      1 package org.Example2;
                                                                                                                                                                  terminated > Widening [Java Application] C:\Users\Shreya\,p2\pool\plugins\org.eclipse.justj.
> M JRE System Library [JavaSE-22]
                                                         public class Widening {
                                                                                                                                                                 Int value : 10
The int to double value is: 10.0
                                                               public static void main(String[] args) {
  int ivalue= 10;
  > # in.Assignment
    # in.Assignment5

→ 

in.Example

    double dvalue = ivalue;
                                                                   System.out.println("Int value : " +ivalue);
System.out.println("The int to double value is: " +dvalue);
    ∄ оој
   # org.assignment
  > # org.Assignment4

> # org.Assignment6
      Aeroplane.java
      Aeroplane1.java
     > 🕖 Duplicates.java
      Mainmethod.java
      Minmax.java
    v 🔑 Missingnumber.java
        > 🔒 Missingnumber
     > 🗓 Oned.java
    > / Program1.java
   # org.cdacmumbai
# org.Example

→ 

⊕ org.Example2

      ☑ Widening.java
  > # ora.oopi
```

2) Create a program that demonstrates narrowing conversion from double to int and prints the result. package org.Example2;

```
public class Narrowing {
    public static void main(String[] args) {
        double dvalue= 10.0;
        int ivalue = (int) dvalue;
        System.out.println("Double value : " +dvalue);
        System.out.println("The double to int value is: " +ivalue);
     }
}
```

```
package org.Example2;
                                                                                                                                                                                      terminated > Narrowing [Java Application] C:\Users\Shreya\.p2\pool\plugins\org.eclipse.just] @

    ■ JRE System Library [JavaSE-22]
                                                              public class Narrowing {

■ public static void main(String[] args) {
                                                                                                                                                                                     Double value : 10.0
The double to int value is: 10
 > # in.Assignment
  ∄ in.Assignment5

# in.Example
                                                                                        double dvalue= 10.0;
    >  Employee.java
>  Program.java
                                                                                        int ivalue = (int) dvalue;

    ⊕ ooj
    ⊕ org.assignment
                                                                                        System.out.println("Double value : " +dvalue);
System.out.println("The double to int value is: " +ivalue
   # org.Assignment4
   # org.Assignment6
     Aeroplane.iava
                                                         13
14
15
      Aeroplane1.java
                                                                     }
      Duplicates.java
    > 🚨 Intersection.java
> 🚨 Mainmethod.java
    > 🏿 Minmax.java

• 🔊 Missingnumber.java
       > 🙉 Missinanumber
    > ② Oned.java
    > 🛺 Program1.java
   # org.cdac
   # org.cdacmumbai
   # org.Example
 # org.Example2
     Narrowing.java
      Widening.java
 > 🔠 org.oopj
```

3) Write a program that performs arithmetic operations involving different data types (int, double, float) and observes how Java handles widening conversions automatically.

```
package org.Example2;

public class Conversion {
    public static void main(String[] args) {
        int intValue = 10;
        float floatValue = 15.5f;
        double doubleValue = 20.25;

        double result1 = intValue + doubleValue;
        float result2 = intValue + floatValue;
        double result3 = floatValue + doubleValue;

        System.out.println("int + double = " + result1);
        System.out.println("int + float = " + result2);
        System.out.println("float + double = " + result3);
        }
    }
}
```

```
■ X ¾ B. 31 B 5 5 5 1 2 4 5 4 1
package org.Example2;

■ JRE System Library [JavaSE-22]
                                                                                                                                                                                             terminated > Conversion (1) [Java Application] C:\Users\Shreya\.p2\pool\plugins\org.eclipse
                                                                                                                                                                                           int + double = 30.25
int + float = 25.5
float + double = 35.75
                                                                    public class Conversion {
   ∨ Æ src
       # in.Assignment
                                                                                 public static void main(String[] args) {
      > # in.Assignment5

→ 
in.Example
→ 
Employee.java
                                                                                       int intValue = 10;
float floatValue = 15.5f;
         > 🗓 Program.java
                                                                                        double doubleValue = 20.25;
       ∰ оој
                                                                                       double result1 = intValue + doubleValue;
float result2 = intValue + floatValue;
     > # org.assignment
> # org.Assignment4
                                                               10
11
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14
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16
                                                                                       double result3 = floatValue + doubleValue;

    # ora.Assianment6

           Aeroplane.java
                                                                                       System.out.println("int + double = " + result1);
System.out.println("int + float = " + result2);
System.out.println("float + double = " + result3);
         Aeroplane1.iava
           Duplicates.java
           Intersection.java
         > // Mainmethod.java
> // Minmax.java
                                                               18

    Missingnumber.java
    Missingnumber

                                                              19
20
         >  Oned.iava
          Program1.java
       # org.cdac
        # org.cdacmumbai
       # org.Example
     Narrowing.java
Widening.java
      > 🔠 org.oopj
```

## 4) Write a Program that demonstrates widening conversion from int to (double,float, boolean, string) and prints the result.

```
package org.Example2;
public class Conversion2 {
    public static void main(String[] args) {
        int intValue = 42;
        double doubleValue = intValue;
        System.out.println("Widening int to double: " + doubleValue);

    float floatValue = intValue;
        System.out.println("Widening int to float: " + floatValue);

    boolean isPositive = intValue > 0;
        System.out.println("int to boolean (is positive): " + isPositive);

        String stringValue = Integer.toString(intValue);
        System.out.println("Converting int to String: " + stringValue);
    }
}
```

```
∨ 🔒 ooj
                                                                    1 package org.Example2;
  Widening int to double: 42.0
Widening int to float: 42.0
int to boolean (is positive): true
Converting int to String: 42
                                                                     3 public class Conversion2 {
                                                                                                                                                                                                                                                                                                       > # in.Assignment5

• # in.Example
                                                                                     public static void main(String[] args) {
   int intValue = 42;
        7
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13
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21
22
23
24
                                                                                            double doubleValue = intValue;
System.out.println("Widening int to double: " + doubleValue);
      > # ooj
> # org.assignment
> # org.Assignment4
> # org.Assignment6
                                                                                           float floatValue = intValue;
System.out.println("Widening int to float: " + floatValue);
         > 🔑 Duplicates.java
> 🔑 Intersection.java
                                                                                           boolean isPositive = intValue > 0;
System.out.println("int to boolean (is positive): " + isPositive).
         > 🛺 Mainmethod.java

Minmax.java

Missingnumber.java

Missingnumber

Missingnumber

Oned.java
                                                                                            String stringValue = Integer.toString(intValue);
System.out.println("Converting int to String: " + stringValue);
        > 🛺 Program1.java

# org.cdac
      > # org.cdacmumbai
> # org.Example
> # org.Example2
         >  Conversion.java
>  Conversion2.java
         > Narrowing.java
> Widening.java
      > 🔠 org.oopj
```