Java Fundamentals - Hands-On Exercises

Assignment 01

/\*Write a Program to accept two integers as command line arguments and print the sum of the two numbers

Example1)

C:\>java Assignment01 10 20

O/P Expected : The sum of 10 and 20 is 30

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Assignment 02

/\*Write a program to print first 5 values which are divisible by 2, 3, and 5.

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Assignment 03

/\*Write a program to reverse the elements of a given 2\*2 array. Four integer numbers needs to be passed as Command Line arguments.

Example1)

C:\>java Assignment03 1 2 3

O/P: Please enter 4 integer numbers

Example2)

C:\>java Assignment03 1 2 3 4

O/P:

The given array is :

1 2

3 4

The reverse of the array is :

4 3

2 1

\*/

Assignment 04

/\*Create an abstract class Instrument which is having the abstract function play.

Create three more sub classes from Instrument which is Piano, Flute, Guitar.

Override the play method inside all three classes printing a message

“Piano is playing tan tan tan tan ” for Piano class

“Flute is playing toot toot toot toot” for Flute class

“Guitar is playing tin tin tin ” for Guitar class

Create an array of 10 Instruments.

Assign different type of instrument to Instrument reference.

Check for the polymorphic behavior of play method.

Use the instanceof operator to print which object is stored at which index of instrument array.

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Assignment 05

/\*Write a program that accepts 2 integers a and b as input and finds the quotient of a/b.

This program may generate an Arithmetic Exception. Use exception handling mechanisms to handle this exception.

In the catch block, print the message as shown in the sample output.

Also illustrate the use of finally block. Print the message “Inside finally block”.

Example1)

Enter the 2 numbers

5

2

The quotient of 5/2 = 2

Inside finally block

Example2)

Enter the 2 numbers

5

DivideByZeroException caught

Inside finally block

\*/

Assignment 06

/\*Write an interface called Playable, with a method

void play();

Let this interface be placed in a package called music.

Write a class called Veena which implements Playable interface. Let this class be placed in a package music.string

Write a class called Saxophone which implements Playable interface. Let this class be placed in a package music.wind

Write another class Test in a package called live. Then,

a. Create an instance of Veena and call play() method

b. Create an instance of Saxophone and call play() method

c. Place the above instances in a variable of type Playable and then call play()

\*/

Assignment 07

/\*Create a package called com.automobile. Define an abstract class called Vehicle.

Vehicle class has the following abstract methods:

public String getModelName()

public String getRegistrationNumber()

public String getOwnerName()

Create twowheeler subpackage under automobile package

Hero class extends automobile.vehicle class with the following methods

public int getSpeed()

– returns the current speed of the vehicle.

public void radio()

– provides facility to control the radio device

Honda class extends com.automobile.vehicle class with the following methods

public int getSpeed()

– Returns the current speed of the vehicle.

public void cdplayer()

– provides facility to control the cd player device which is available in the car.

Create a test class to test the methods available in all these child class.

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Assignment 08

/\*Write a Java program to show left padding using

format() method.

Output is 3 zero's("000") + "7044",

in total 7 digits.

Declare an int within main method like this;

***int num = 7044;***

Example1)

C:\>java Assignment08

O/P Expected : 0007044

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