**ASSIGNMENT 6**

**Challenging Code Questions**

1. Write a Java program that returns an MD5 hash.
2. Write a program in Java that’ll accept a phone number with letters and convert it to a phone number with only digits. For example, if you sent the program a phone number like 800888TEST, it should return (800) 888-8378.

Note that it shouldn’t only convert letters to the digits they represent but also format the number correctly with parentheses and dashes. And, if you send the program an invalid number, it should throw an error.

1. Create a method in a Java class that accepts an array of numbers as a parameter. If the array of numbers can be rearranged so that they’re consecutive numbers where no number appears twice, return true. If this isn’t possible, return false. The array can be of any size.
2. In this challenge, you’ll create a method in Java that accepts both a string to be searched and a string that’s been encoded in hex and embedded in the first string as parameters. The method should search the first parameter and return the index of the occurrence of the second parameter.
3. Find the output of the code:

public class A

{

public static void main(String args[])

{

//\u000d System.out.println("hello");

}

}

1. Find the output of the code:

public class Test

{

public static void main(String args[])

{

int i=20+ +9- -12+ +4- -13+ +19;

System.out.println(i);

}

}

1. Find the output of the following code:

public class Test

{

public static void main(String args[])

{ String s1 = "Java";

String s2 = "Java";

StringBuilder sb1 = new StringBuilder();

sb1.append("Ja").append("va");

System.out.println(s1 == s2);

System.out.println(s1.equals(s2));

System.out.println(sb1.toString() == s1);

System.out.println(sb1.toString().equals(s1));

}

}

1. Find the output of the program:

public class Test

{

public static void main(String args[])

{ int[] array = {6,9,8};

List<Integer> list = new ArrayList<>();

list.add(array[0]);

list.add(array[2]);

list.set(1, array[1]);

list.remove(0);

System.out.println(list);

}

}

1. Execute the code:

public class Actors

{

Public static void main(String arg[])

{

char[] ca ={0x4e, \u004e, 78};

System.out.println((ca[0] == ca[1])+ " "+(ca[0]==ca[2]));   }

}

1. Find the output:

public class Test

{

public static void main(String args[])

{

long longWithL = 1000\*60\*60\*24\*365L;

long longWithoutL = 1000\*60\*60\*34\*365;

}

}

1. Find the output:

import java.lang.Math;

public class Example

{

public static void main(String args[])

{

String computerMove;

switch ( (int)(3\*Math.random()) )

{

case 0:

computerMove = "Rock";

break;

case 1:

computerMove = "Scissors";

break;

case 2:

computerMove = "Paper";

break;

}

System.out.println("Computer's move is " + computerMove);

}

}

1. What is the output of the following code:

public class Block

{

static

{

System.out.println("Static Block-1");

}

public static void main(String args[])

{

System.out.println("Main Method");

}

static

{

System.out.println("Static Block-2");

}

}