LAB # 10

Question:

Write a program to take the integer value from the user and convert an integer into binary, hexadecimal, and octal with the help of methods defined in wrapper class of Integer and Long.

Source Code:

Convert class:

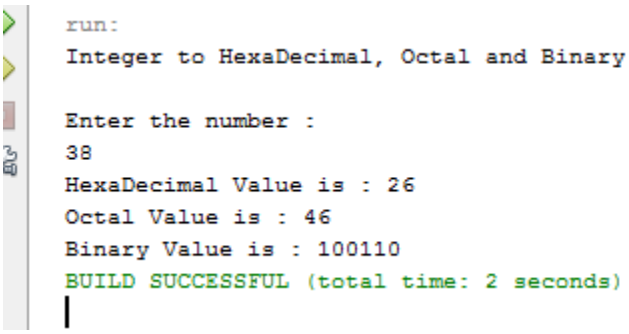
```
import java.util.Scanner;
class Convert
{

   int num;
   void getVal()
    {
        System.out.println("Integer to HexaDecimal, Octal and Binary");
        Scanner scan = new Scanner(System.in);
        System.out.println("\nEnter the number :");
        num = scan.nextInt();
    }
   void convert()
     {
         String hexa = Integer.toHexString(num);
         System.out.println("HexaDecimal Value is : " + hexa);
         String octal = Integer.toOctalString(num);
         System.out.println("Octal Value is : " + octal);
         String binary = Integer.toBinaryString(num);
         System.out.println("Binary Value is : " + binary);
      }
}
```

Main Class:

```
public class Lab10_1 {
   public static void main(String[] args) {
      Convert obj = new Convert();
       obj.getVal();
       obj.convert();
       }
```

```
}
```

Output:



```
run:
Integer to HexaDecimal, Octal and Binary

Enter the number :
38
HexaDecimal Value is : 26
Octal Value is : 46
Binary Value is : 100110
BUILD SUCCESSFUL (total time: 2 seconds)
```

Write a program to display the sign of the Zodiac corresponding to a birth date entered through the keyboard.

Source code:

Zodiac_sign class:

```
package lab10_2;
public class zodiac_sign {

   static void zodiac_sign(int day, String month)
   {
      String astro_sign="";
      switch (month) {
         case "december":
            if (day < 22)
               astro_sign = "Sagittarius";
            else
               astro_sign ="capricorn";
            break;
         case "january":
            if (day < 20)
               astro_sign = "Capricorn";
            else
               astro_sign = "aquarius";
            break;
         case "february":
            if (day < 19)
               astro_sign = "Aquarius";
            else
               astro_sign = "pisces";
            break;
```

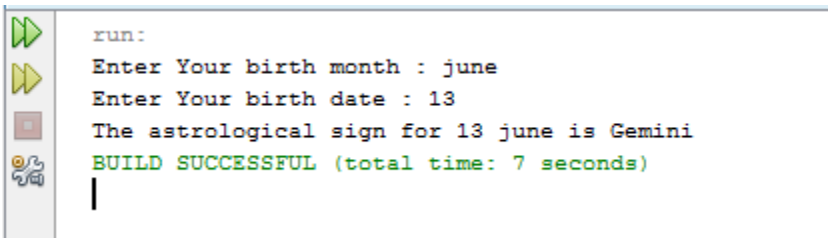
```
case "march":
   if (day < 21)
      astro_sign = "Pisces";
   else
      astro_sign = "aries";
   break;
case "april":
   if (day < 20)
      astro_sign = "Aries";
   else
      astro_sign = "taurus";
   break;
case "may":
   if (day < 21)
      astro_sign = "Taurus";
   else
      astro_sign = "gemini";
   break;
case "june":
   if (day < 21)
      astro_sign = "Gemini";
   else
      astro_sign = "cancer";
   break;
case "july":
   if (day < 23)
      astro_sign = "Cancer";
   else
      astro_sign = "leo";
   break;
case "august":
   if (day < 23)
      astro_sign = "Leo";
   else
      astro_sign = "virgo";
   break;
case "september":
   if (day < 23)
      astro_sign = "Virgo";
   else
      astro_sign = "libra";
   break;
```

```
            case "october":
                if (day < 23)
                    astro_sign = "Libra";
                else
                    astro_sign = "scorpio";
                break;
            case "november":
                if (day < 22)
                    astro_sign = "scorpio";
                else
                    astro_sign = "sagittarius";
                break;
            default:
                break;
        }
        System.out.println("The astrological sign for " + day + " " + month + " is " + astro_sign );
    }

}
```

Main Class:

```
package lab10_2;
import static lab10_2.zodiac_sign.*;
import java.util.Scanner;
public class Lab10_2 {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.print("Enter Your birth month : ");
        String month=scan.nextLine();
        System.out.print("Enter Your birth date : ");
        int day = scan.nextInt();
        zodiac_sign(day, month);
    }
}
```

Output:



Write a program to take 10 integer values from the user and display the odd values with their indexes and copy of the original array by using the search and copy method respectively, define in array class.

Example:
Array= {11,22,33,44,55,66,77,88,99,111}

Sample Output:
11 found at index= 1
33 found at index= 3
55 found at index= 5
77 found at index= 7
111 found at index= 9

Array= {11,22,33,44,55,66,77,88,99,111}

Source Code:

Find Class:

```
package lab10_3;
import java.util.Arrays;
public class find {
   int[] lists=new int[10];
   static void find(int[] lists){
      for (int i=0;i<lists.length;i++)
         if(lists[i]%2!=0){
            System.out.println(lists[i]+" is found at index = "+(i+1));
         }
   }
   static void copy(int[] lists){
      System.out.println("Arrays = "+  Arrays.toString(Arrays.copyOf(lists, 10)));
   }
}
```

Main Class:

```
package lab10_3;
import static lab10_3.find.*;
import java.util.Scanner;
public class Lab10_3 {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
```

```
        int[] lists=new int[10];
        for(int i=0;i<lists.length;i++)
        {
           System.out.print("Enter number to add in list : ");
           lists[i]=scan.nextInt();
        }
        System.out.println("\n*Program to print odd values index of array*");
        find(lists);
        copy(lists);
    }
}
```

Output: