

CSCI 1100 – Fall 2015

Assignment 2 – Due Thursday November 12 at 11:00 pm (night)

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Assignments are to be your own work. If you have questions, you can ask your instructor, course TAs or TAs in the Learning Centre.

Declaration: Please complete this declaration		
1	“This document is entirely my own work.”	Yes
2	I obtained help to complete this document (e.g., from a TA).	no
3	This document contains some guidance from the Internet or another document or file or program (e.g., Java's API).	no.

Question 1.

```
/*this program will reads whole numbers
between 20 and 99 and writes the numbers as words. */
import java.util.Scanner;
public class Q1{
    public static void main(String[] args){
        Scanner kb=new Scanner (System.in);
        int a=0;
        int f=0;
        int s=0;
        String []first=new String [] { "", "", "Twenty", "Thirty", "Forty", "Fifty", "Sixty", "Seventy", "Eighty", "Ninety" };
        String []second=new String [] { "", "one", "two", "three", "four", "five", "six", "seven", "eight", "nine" };
        while(a!=-1){
            System.out.print("Enter a number between 20 and 99 or -1 to end:");
            a=kb.nextInt();
            if (a>=20&&a<=99){
                f= a/10;
                s=a-f*10;
                System.out.println(first[f]+" "+second[s]);
            }
            else if (a!=-1&&(a<=20||a>=99)){
                System.out.println("Out of bounds. Try again.");
            }
        }
    }
}
```

```

    ----jGRASP exec: java Q1

▶▶ Enter a number between 20 and 99 or -1 to end:55
    Fifty five
▶▶ Enter a number between 20 and 99 or -1 to end:19
    Out of bounds. Try again.
▶▶ Enter a number between 20 and 99 or -1 to end:100
    Out of bounds. Try again.
▶▶ Enter a number between 20 and 99 or -1 to end:-1

    ----jGRASP: operation complete.

```

Question 2.

```

/*This is a number guessing game.*/
import java.util.Random;
import java.util.Scanner;
public class Q2{
    public static void main(String[] args){
        int guess=0,i=0;
        Scanner kb=new Scanner (System.in);
        Random rd=new Random();
        int num=rd.nextInt(100);
        System.out.println("Welcome to the Number Guessing Game");
        System.out.print("Guess a number between 0 and 100 or enter -1 to quit: ");
        while(guess!=-1){
            guess=kb.nextInt();
            if(guess!=-1&&guess>num&&guess<=100){
                System.out.print("The number is higher.Try again:");
                i=i+1;
            }
            else if(guess!=-1&&guess<num&&guess>=0){
                System.out.print("The number is lower. Try again: ");
                i=i+1;
            }
            else if(guess!=-1&&guess==num){
                System.out.println("Congratulations! You guessed the number in "+i+"tries");
                i=0;
                num=rd.nextInt(100);
                System.out.println("Guess a number between 0 and 100 or enter -1 to quit: ");
            }
            else if(guess!=-1&&guess<0||guess>100){
                System.out.println("Not a vild number,Please enter a new number: ");
                i=i+1;
            }
        }
        System.out.println("Thank-you for playing the game!!");
    }
}

```

```
----jGRASP exec: java Q2

Welcome to the Number Guessing Game
>> Guess a number between 0 and 100 or enter -1 to quit: 300
Not a vild number,Please enter a new number:
>> -10
Not a vild number,Please enter a new number:
>> 55
>> The number is higher.Try again:45
>> The number is higher.Try again:35
>> The number is higher.Try again:25
>> The number is higher.Try again:15
>> The number is higher.Try again:5
>> The number is lower. Try again: 9
Congratulations! You guessed the number in 8tries
Guess a number between 0 and 100 or enter -1 to quit:
>> 55
>> The number is lower. Try again: -1
Thank-you for playing the game!!

----jGRASP: operation complete.
```