IIP

Test Units 2-3 - Possible solution

Year 2013-2014

Name:

1. Write a Java assignment that transforms obtains the total number of seconds that is in a given quantity of hours, minutes, and seconds. Final result must be in an `int` variable with identifier `finalSeconds`, whereas original data is present in three `int` variables with identifiers `hour`, `minute`, and `second`.

```
finalSeconds = (hour * 60 + minute)*60 + second
```

2. Write a Java program class that asks for your age (integer number) and writes `true` if you are an adult (you are 18 or older) and `false` otherwise.

```
import java.util.*;

public class Adult {
  public static void main(String [] args) {
    int age;
    Scanner kbd = new Scanner(System.in).useLocale(Locale.US);

    System.out.print("Write your age: ");
    age=kbd.nextInt();
    System.out.println(age>=18);
  }
}
```

3. Write a Java program that asks for two words and writes `true` when they start with the same letter (ignoring case) and `false` otherwise.

```
import java.util.*;

public class Words {
  public static void main(String [] args) {
    String w1, w2;
    Scanner kbd = new Scanner(System.in).useLocale(Locale.US);

    System.out.print("Write first word: ");
    w1=kbd.next();
    System.out.print("Write second word: ");
    w2=kbd.next();
    w1=w1.toUpperCase();
    w2=w2.toUpperCase();
    System.out.println(w1.charAt(0)==w2.charAt(0));
  }
}
```

4. Write a Java program that asks for a sencence and writes a random substring of the given sentence. Employ the `Math.random()` method and the `length()` and `substring(b,e)` methods for the `String` class.

```
import java.util.*;

public class RandomSubstring {
  public static void main(String [] args) {
    String s;
    int b, e, aux1, aux2;
    Scanner kbd = new Scanner(System.in).useLocale(Locale.US);

    System.out.print("Write string: ");
    s=kbd.nextLine();
    aux1=(int) Math.floor(Math.random()*s.length());
    aux2=(int) Math.floor(Math.random()*s.length());
    e=Math.max(aux1,aux2); b=Math.min(aux1,aux2);
    System.out.println("Substring between "+b+" and "+e+" is : "+s.substring(b,e));
  }
}
```