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public class StringOps {
    //////////////////////////////////////
    // reminder: allowed methods //
    // 1.charAt(int index) //
    // 2.length() //
    // 3.substring(int start) //
    // 4.substring(int start,int ends) //
    // 5.indexOf(String str) //
    // The rest are not allowed ! //
    // if you want to use a different //
    // method, and you can implement //
    // it using material from the course //
    // you need to implement a version of //
    // the function by yourself. //
    // see example for substring //
    // in Recitation 3 question 5 //
    //////////////////////////////////////
    public static void main(String[] args) {

    }

    public static String capVowelsLowRest (String string) {
        String strrtern = "";
        for(int i = 0; i <= ((string.length()) - 1); i++)
        {
            if(string.charAt(i) == 'a' || string.charAt(i) == 'e' || string.charAt(i) == 'i' ||
string.charAt(i) == 'o' || string.charAt(i) == 'u')
            {
                strrtern = strrtern + ((char)(string.charAt(i) - 32));
            }
            else if(string.charAt(i) >= 'A' && string.charAt(i) <= 'Z')
            {
                if(string.charAt(i) == 'A' || string.charAt(i) == 'E' || string.charAt(i) == 'I' ||
string.charAt(i) == 'O' || string.charAt(i) == 'U')
                {
                    strrtern = strrtern + (string.charAt(i));
                }
            }
            else
            {
                strrtern = strrtern + ((char)(string.charAt(i) + 32));
            }
        }
    }
}

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        else
        {
            strrutern = strrutern + (string.charAt(i));
        }
    }
    return strrutern;
}

public static String camelCase (String string) {
    String strrutern = "";
    int k = 0;
    while((string.charAt(k)) == ' '){
        k++;
    }
    if(string.charAt(k) >= 'A' && string.charAt(k) <= 'Z'){
        strrutern = strrutern + ((char)((string.charAt(k)) + 32));
    }else{
        strrutern = strrutern + (string.charAt(k));
    }
    for( int i = k + 1; i <= (string.length() - 1); i++){
        if(((string.charAt(i))) != ' '){
            if(string.charAt(i-1) == ' '){
                if(string.charAt(i) >= 'A' && string.charAt(i) <= 'Z'){
                    strrutern = strrutern + (string.charAt(i));
                }else{
                    strrutern = strrutern + ((char)((string.charAt(i)) - 32));
                }
            }else{
                if(string.charAt(i) >= 'A' && string.charAt(i) <= 'Z'){
                    strrutern = strrutern + ((char)((string.charAt(i)) + 32));
                }else{
                    strrutern = strrutern + (string.charAt(i));
                }
            }
        }
    }
    return strrutern;
}

}

public static int[] allIndexof (String string, char chr) {
    int count = 0;
    for(int i = 0; i <= ((string.length()) - 1); i++){
        if(string.charAt(i) == chr ){
            count = count + 1;

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    }
}

int [] array = new int[count];
int counttwo = 0;
for(int i = 0; i <= ((string.length()) - 1); i++){
    if(string.charAt(i) == chr ){
        array [counttwo] = i;
        counttwo++;
    }
}

return array;
}
}

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public class ArrayOps {
    public static void main(String[] args) {

    }

    public static int findMissingInt (int [] array) {
        int value = 0;
        for(int i = 0; i <= (array.length);){
            for(int k = 0; k <= array.length; k++){
                if(k == array.length){
                    value = i;
                    break;
                }else{
                    if(i == (array[k])){
                        i++;
                    }
                }
            }
            break;
        }
        return value;
    }

    public static int secondMaxValue(int [] array) {
        int max = 0;
        int secondmax = 0;
        int count = 0;
        for(int i = 0; i <= (array.length - 1); i++){
            max = Math.max((array [i]), max);
        }
    }
}

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for(int i = 0; i <= (array.length - 1); i++){
    if((array [i]) < max){
        secondmax = Math.max(array [i] , secondmax);
    }else{
        count++;
    }
}
if (count > 1) {
    return max;
}else{
    return secondmax;
}
}

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public static boolean containsTheSameElements(int [] array1,int [] array2) {
    boolean thefirst = true;
    boolean thesecond = true;
    for(int i = 0; i <= ((array1.length) - 1); i++){
        for(int k = 0; k <= (array2.length );){
            if(k == array2.length){
                thefirst = false;
                break;
            }else{
                if((array1 [i]) == (array2 [k])){
                    break;
                }else{
                    k++;
                }
            }
        }
    }

    for(int i = 0; i <= ((array2.length) - 1); i++){
        for(int k = 0; k <= (array1.length );){
            if(k == array1.length){
                thesecond = false;
                break;
            }else{
                if((array2 [i]) == (array1 [k])){
                    break;
                }else{
                    k++;
                }
            }
        }
    }

    if(thesecond == true && thefirst == true ){

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    return true;
  }else{
    return false;
  }
}
```

```
public static boolean isSorted(int [] array) {
  boolean bigtosmall = true;
  boolean smalltobig = true;
  for(int i = 0; i <= ((array.length)- 2); i++){
    if((array [i]) >= (array [i + 1] )){
      }else{
        bigtosmall = false;
        break;
      }
    }
  for(int i = 0; i <= ((array.length)- 2); i++){
    if((array[i]) <= (array [i+1] )) {
      }else{
        smalltobig = false;
        break;
      }
    }
  if (smalltobig == false && bigtosmall == false){
    return false;
  }else{
    return true;
  }
}
}
```