

Practical 28 May

- 1) Given an array of integers, compute recursively the number of times the value 15 appears in the array.

Hint -

```
int find15(int arr[], int startIndex) { }
```

Here, `arr` is the array of integers and `startIndex` is the index from where the search starts. Initially the function can be invoked as - `find15(arr, 0)`

- 2) Given a string, write a recursive method to return another string where each adjacent character includes a '#' in between.

For example, `input = "Hello" → output = "H#e#l#l#o"`

- 3) Given a string, write a recursive method to check if the given string is a palindrome or not.

For example,

`input = "malayalam" → output = true`

`input = "geefeeg" → output = true`

`input = "geefeg" → output = false`

Hint -

```
boolean checkPalindrome(String str, int startIndex, int  
endIndex) { }
```

Call → `checkPalindrome(str, 0, str.length() - 1)`

Compare the first and last characters first, if they are same then compare 2nd and 2nd last character and so on.

- 4) Given an array of integers, write a recursive method to return the minimum element in the array.

Hint -

```
int minimum(int arr[], int size) { }
```

Call → `minimum(arr, arr.length);`

- 5) Given 2 positive integers, write a recursive method to calculate their sum using recursion.

Note: In all the above questions, `main` method should call the recursive method.