

National University of Computer and Emerging Sciences



Lab Manual # 08

Programming Fundamental (CS118)

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PROBLEMS

NOTE: Please handle the invalid conditions very carefully.

Problem 1: Name Conversion

Write a program that takes your full name as input and displays the abbreviations of the first and middle names except the last name which is displayed as it is.

OUTPUT:

```
Enter Name: Robert Brett Roser,  
Name's Abbreviation: R.B.Roser.
```

Problem 2: Substring Count and Indexes

Write a program which takes string and substring as user input and then calculate

- How many times the substring is present in the string
- Print the indexes from where the substring starts in the string

OUTPUT:

```
Enter String: Pak Pakk Pakistan  
Enter Substring: Pak  
  
Pak present 3 times in the given string Pak Pakk Pakistan  
Pak is present at 0, 4 and 9 index in the given string Pak Pakk Pakistan
```

NOTE: You cannot use any built-in function except `strlen()` → use to find the string length.

Problem 3: Word with Maximum Length

Write a program which takes string as user input and then find the word from the string which has maximum length.

OUTPUT:

```
Enter String: My name is Ali. I'm 12 year old. I like Programming Fundaments.  
  
The word Programming has maximum length (11) in the above string
```

NOTE: You cannot use any built-in function except `strlen()` → use to find the string length.

Problem 4: Bubble Sort

Write a program which takes an integer array as user input and then sort an array by using Bubble Sort.

Problem 5: Selection Sort

Write a program which takes an integer array as user input and then sort an array by using Selection Sort.