

Assignment - 5

Subject: Programming and Problem Solving
Trimester: 1

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Batch: A3

Aim: Write a menu driven program to perform all string operations

Theory:

1) Strings

Strings are one dimensional array of characters terminated by a null character which is '\0'.

Index	0	1	2	...	n
Variable	'x'	'y'	'z'	...	'\0'

2) String Library functions

a) strcpy ()

Copies the second string into the first string.

b) strcat ()

Concatenates the second string onto the end of string 1.

c) `strlen ()`

Returns length of string

d) `strcmp ()`

Returns 0 if string 1 and string 2 are the same, less than 0 if string 1 is larger than string 2 and greater than 0 if string 2 is larger than string 1.

3) User defined functions

User defined functions are defined by the user

```
return_type function_name (parameter list)
{
    body of function
}
```

Algorithm

Step 1: Start

Step 2: Input user defined function of strlen, strcpy, strcat

Step 3: Input string 1 and string 2

Step 4: Input string operation

Step 5: If '1' == 'strlen'

Recall strlen

Display strlen of string 1 and 2

Step 6: If '2' == 'strcpy'

Recall strcpy

Copy string 2 into string 1

Display string 1

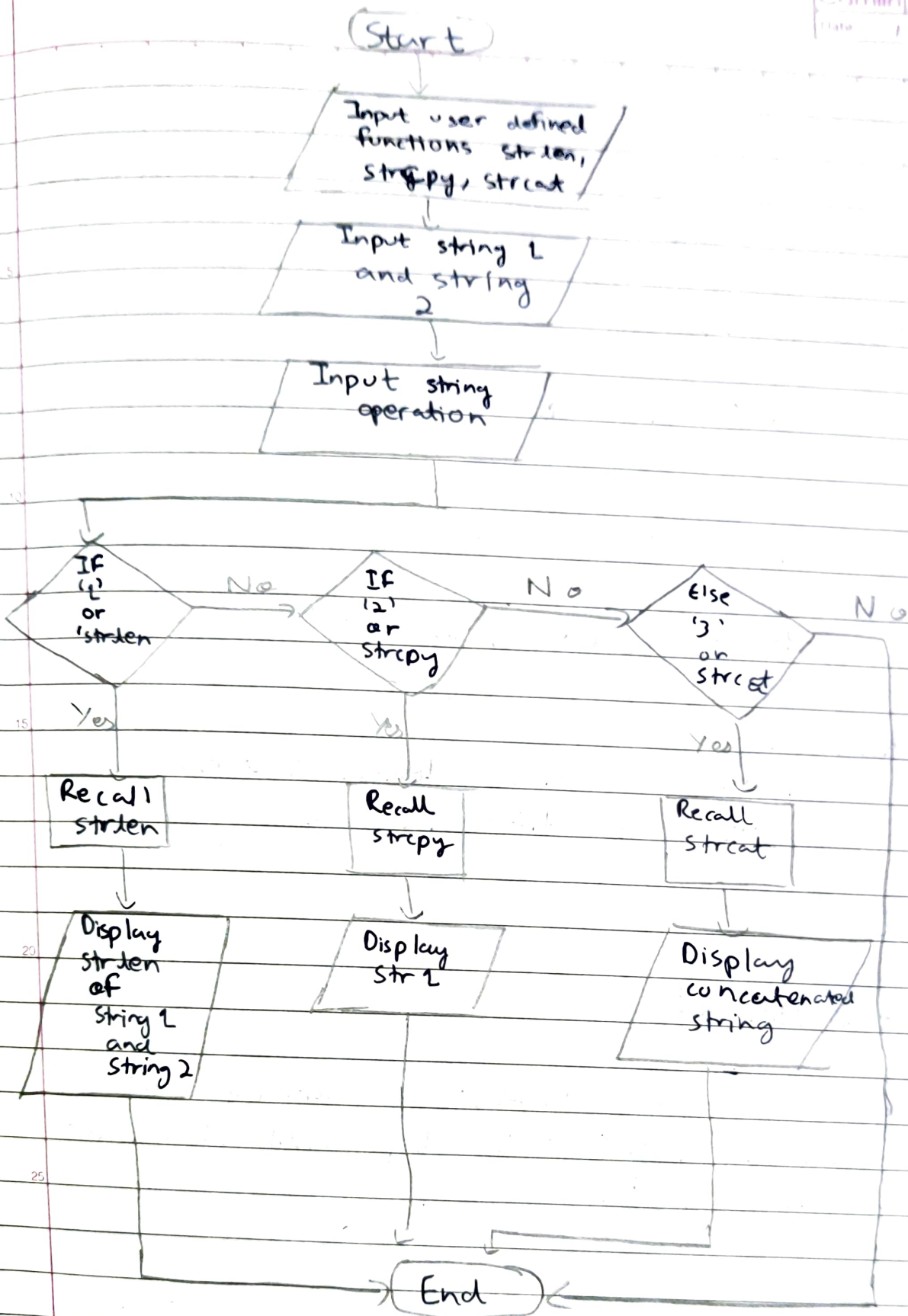
Step 7: If '3' == 'strcat'

Recall strcat

Display concatenated string

Step 8: End.

Flowchart



Input

Str 1 = abc

Str 2 = defg

Output

Str 1 len = 3 } Str len
Str 2 len = 4 }

Str 1 = defg } str copy

Str 1 = abcdefg } str cat.

Conclusion:

Thus we have learned various string operations in C.

FAQ

1. What is string?

→ Strings are one dimensional array of characters terminated by null character which is '\0'.

2. Explain the String library function

- `strlen()` → returns length of string
- `strcpy()` → Copies string 2 onto string 1
- `strcat()` → Concatenates string 2 on the end of string 1
- `strcmp()` → Returns value depending on which string is bigger

3. How to write user defined functions

→ Syntax

```

return-type function_name (parametre
{
    Body of function
}
    
```