

CSE115L – Programming Language I Lab

Lab – 15

String (Basic)

Declaration and initialization of strings	Example 1:
<p>Strings are declared in C in a similar manner as arrays are declared. The only difference is that, strings are of char type:</p> <pre>char s[5];</pre> <p>In C, strings can be initialized in a number of ways:</p> <pre>char c[]="abcd"; OR, char c[5]="abcd"; OR, char c[]={'a','b','c','d','\0'}; OR; char c[5]={'a','b','c','d','\0'};</pre> <p>When, compiler encounters strings, it appends a null character at the end of string.</p>	<pre>#include<stdio.h> #include<string.h> int main() { char str1[10]; char str2[20]; printf("Enter string 1: "); scanf("%s",str1); fflush(stdin); printf("Enter string 2: "); gets(str2); printf("%s\n", str1); puts(str2); return 0; }</pre>

Example 2:	
<pre>#include<stdio.h> int main() { char str[5]={'E','X','T','T','\0'}; char st[]="world"; printf("%s\n",str); printf("%s",st); return 0; }</pre>	<pre>#include<stdio.h> int main() { char str[10]; int i; for(i=0;i<5;i++) { scanf("%c",&str[i]); } for(i=0;i<5;i++) { printf("%c",str[i]); } return 0; }</pre>
<pre>#include<stdio.h> int main() { char str[10]; char s[10]; gets(str); scanf("%s",s); puts(str); printf("%s\n",s); return 0; }</pre>	

Example 3: Passing string as function argument

```
#include<stdio.h>
void printString(char s[]);int main()
{
    char str1[10]; gets(str1);
    printString(str1);return 0;
}
```

```
void printString(char s[])
{
    int i=0; while(s[i]!='\0')
    {
        printf("%c",s[i]);i++;
    }
}
```

Perform the following tasks.

Task 1: Take two string inputs, calculate lengths of both and display the smaller one. If the lengths are equal display either one.

Sample Input/output:

Enter string 1: How are you

Enter string 2: I am fine how about you

How are you

Task 2: Print the ASCII values of all characters in a string given as input.

Sample Input/output:

Enter string: ABC

ASCII Values: 65 66 67

Task 3: Take a string input A which will include both uppercase and lowercase letters. Convert all lowercase letters to uppercase letters and all uppercase letters to lowercase letters. Finally display the string.

Sample Input/output:

Enter string: Today is THURSDAY

Output: tODAY IS thursday