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**Green University of Bangladesh**

**Department of Computer Science and Engineering (CSE)**

**Faculty of Sciences and Engineering**

**Semester: (Spring, Year:2021), B.Sc. in CSE (Day)**

**LAB REPORT NO: 01**

**Course Title: : Introduction to Expression in C**

**Course Code: CSE 104 Section: D8**

**Lab Experiment Name: Introduction to Expression in C**

**Student Details**

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**Lab Date : 28/06/2022**

**Submission Date : 07/07/2022**

**Course Teacher’s Name : Mr. Mozdaher Abdul Quader**

**[For Teachers use only: Don’t Write Anything inside this box]**

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| **Lab Report Status**  **Marks: ………………………………… Signature:.....................**  **Comments:.............................................. Date:..............................** |

**TITLE OF THE LAB EXPERIMENT**

Calculating Area of a Square.

**OBJECTIVES/AIM [1]**

**We will be able to calculate the area of a Square taking an input from the user.**

**PROCEDURE / ANALYSIS / DESIGN [2]**

If one side of the square is r then the area will be Area = R\*R

**IMPLEMENTATION [2]**

I designed the program in 5 section and separated them using multiline comment.

**TEST RESULT / OUTPUT [2]**

**Code 01:**

**#include<stdio.h>**

**void stringLength(char str);**

**int main(){**

**char str[100];**

**printf("Enter string: ");**

**fgets(str, sizeof(str), stdin);**

**stringLength(str);**

**return 0;**

**}**

**void stringLength(char str){**

**int i;**

**for (i=0; str[i]!='\0';i++){**

**}**

**}**

**Code 02:**

**#include<stdio.h>**

**int countAlphabet(char alp[]);**

**int countDigits(char dig[]);**

**int countSpCharats(char characts[]);**

**int strCount(char str[100]);**

**int main(){**

**char str[100];**

**char alp[100], dig[100], characts[100];**

**int countAlphabet, countDigits, countSpChar;**

**printf("Enter string: ");**

**fgets(str, sizeof(str), stdin);**

**//for alphabets**

**for (int i=0; i<100;i++){**

**if ((str[i]>='a' && str[i]<='z') || (str[i]>='A' && str[i]<='Z')){**

**alp[i]=str[i];**

**countAlphabet++;**

**}**

**}**

**printf("Alphabets: %d\n", countAlphabet);**

**//for digits**

**for(int i = 0; i<100; i++){**

**if (str[i]>='0' && str[i]<='9'){**

**dig[i]=str[i];**

**countDigits++;**

**}**

**}**

**printf("Digits: %d\n", countDigits);**

**//for special characters**

**for(int i=0; i<100; i++){**

**if((str[i]>='!' && str[i]<='/') || (str[i]>=':' && str[i]<='@') || (str[i]>='[' && str[i]<='`') || (str[i]>='{' && str[i]<='~')){**

**characts[i]=str[i];**

**countSpChar++;**

**}**

**}**

**printf("Special Characters: %d\n", countSpChar);**

**}**

**Code 03:**

**#include <stdio.h>**

**void stringLength(char str);**

**int main(){**

**char str[100];**

**printf("Enter string: ");**

**fgets(str, sizeof(str), stdin);**

**stringLength(str);**

**return 0;**

**}**

**void stringLength(char str){**

**int i;**

**for (i=0; str[i]!='\0';i++){**

**}**

**}**

**Output 01:**

**Output 02:**

**Output 03:**

**6. ANALYSIS AND DISCUSSION [2]**

This program outputs area in integer number. It runs well. The trouble spot of this problem is at declaring variable where it only required two variables for perfectly calculating the area.