

STRUCTURED PROGRAMMING

Lab Assignment-1

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Batch: 56th

Section: C

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1. Write a C program that will print your name.

```
#include <stdio.h>
int main ()
{
printf ("Name: Abdul Wahide Shipu");
return 0;
}
```

2. Write a C program that will print your name, your father and mother name in three separate lines.

```
#include <stdio.h>
int main ()
{
printf ("Name: Abdul Wahide Shipu\n");
printf("Father's name: Tayeeb Ali\n");
printf("Mother's name: Afjun Begum\n");
return 0;
}
```

3. Write a C program that will print the sum of two variables a and b; where a = 10 and b = 20.

```
#include<stdio.h>
int main()
{
int a = 10,b = 20;
printf("sum = %d", a+b);
return 0;
}
```

4. Write a C program to calculate sum of two integer numbers (given by the user) and print it.

```
#include<stdio.h>
int main()
{
int a, b;
printf("Enter two numbers");
scanf("%d %d", &a, &b);
printf("sum = %d", a+b);
return 0;
}
```

5. Write a C program that will take three numbers from user and find their average.

```

#include<stdio.h>
int main()
{
float a, b, c, sum, avg;
printf("Enter three numbers:");
scanf("%f %f %f", &a, &b, &c);
sum = a+b+c;
avg = sum/3;
printf("average = %f", avg);
return 0;
}

```

***6. Write a C program that will take three integer as input from user and print their average.
(You should use type-cast to get proper result)***

```

#include<stdio.h>
int main()
{
int a, b, c, sum;
float avg;
printf("Enter three numbers:");
scanf("%d %d %d", &a, &b, &c);
sum = a+b+c;
avg=(float)sum/3;
printf("average=%.2f",avg);
return 0;
}

```

7. Write a C Program to convert Km value into meter value.

```
#include <stdio.h>
int main ()
{
float a;
printf ("Enter km value:");
scanf ("%f", &a);
a = a*1000;
printf ("Meter value = %f", a);
return 0;
}
```

8. Write a C Program to convert Celsius value into Fahrenheit value.

```
#include<stdio.h>
int main()
{
float c, f;
printf("Enter celsius value:");
scanf("%f",&c);
f=(9*c)/5+32;
printf("fahrenheit value = %f", f);
return 0;
}
```

9. Write a C Program to interchange values of two numbers using third variable.

```
#include <stdio.h>
int main()
{
    int var1, var2, temp;
    printf("Enter two numbers");
    scanf("%d %d", & var1, & var2);
    temp = var1;
    var1 = var2;
    var2 = temp;
    printf("After changing value: %d %d", var1, var2);
    return 0;
}
```

10. Write a C Program to interchange values of two numbers without using third variable.

```
#include <stdio.h>
int main()
{
    int var1, var2;
    printf("Enter two numbers:");
    scanf("%d %d", &var1, &var2);
    var1 = var1+var2;
    var2 = var1-var2;
    var1 = var1-var2;
    printf("After changing value:%d %d",var1,var2);
    return 0;
}
```

```
}
```

11. Write a C program to input two numbers and print their quotient and remainder.

```
#include <stdio.h>
int main()
{
    int a, b;
    printf("Enter two numbers:");
    scanf("%d %d", &a, &b);
    printf("quotient = %d\n", a/b);
    printf("remainder = %d\n", a%b);
    return 0;
}
```

12. Write a C Program to accept any character from user and display its ASCII number on screen.

```
#include <stdio.h>
int main()
{
    char c;
    printf("Enter any character");
    scanf("%c", &c);
    printf("ASCII value of %c = %d", c, c);
    return 0;
}
```

13. Write a C Program to input any ASCII number and display appropriate character on screen.

```
#include <stdio.h>
int main()
{
int a;
printf("Enter ASCII value:");
scanf("%d",&a);
printf("ASCII character of %d=%c",a,a);
return 0;
}
```

14. Write a C Program to input any Capital letter and display it with small letter.

```
#include <stdio.h>
#include <ctype.h>
int main()
{
char c,result;
printf("Enter any capital character:");
scanf("%c",&c);
result= tolower(c);
printf("result=%c",result);
return 0;
}
```


15. Write a C Program to input any Small letter and display it with capital letter.

```
#include <stdio.h>
#include <ctype.h>
int main()
{
    char c,result;
    printf("Enter any small character:");
    scanf("%c",&c);
    result= toupper(c);
    printf("result=%c",result);
    return 0;
}
```

16. Write a C Program to input any Capital letter and display it with small letter. (without using tolower() function)

```
#include<stdio.h>
int main()
{
    char a;
    printf("enter uppercase character:");
    scanf("%c",&a);
    a=a+32;
    printf("lowercase character is:%c",a);
    return 0;
}
```

17. Write a C Program to input any Small letter and display it with capital letter. (without using toupper() function)

```
#include<stdio.h>
int main()
{
char a;
printf("enter lowercase character:");
scanf("%c",&a);
a=a-32;
printf("uppercase character is:%c",a);
return 0;
}
```

18. Write a C program to input the number of days from the user and convert it into years, months and days.

```
#include<stdio.h>
int main()
{
int a,year,month,day;
printf("Enter days:");
scanf("%d",&a);
year=a/365;
month=(a%365)/12;
day=(a%365)%12;
```

```
printf("year=%d,month=%d,day=%d",year,month,day);  
return 0;  
}
```

19. Write a C Program to input three digits number from user and calculate sum of first and last numbers. (Hint : I/p : 358 O/p : 11)

```
#include <stdio.h>  
int main()  
{  
int num, sum=0, firstDigit, lastDigit;  
printf("Enter any number to find sum of first and last digit: ");  
scanf("%d", &num);  
lastDigit = num % 10;  
firstDigit = num;  
while(num >= 10)  
{  
num = num / 10;  
}  
firstDigit = num;  
sum = firstDigit + lastDigit;  
printf("Sum of first and last digit = %d", sum);  
return 0;  
}
```

20. Write a C Program to input three digits number from user and display square of first and last

numbers.(Hint : I/p : 358 O/p : Square of 3 is 9 and Square of 8 is 64)

```
#include <stdio.h>
int main()
{
    int num, sum=0, firstDigit, lastDigit;
    printf("Enter any number to find sum of first and last digit: ");
    scanf("%d", &num);
    lastDigit = num % 10;
    firstDigit = num;
    while(num >= 10)
    {
        num = num / 10;
    }
    firstDigit = num;
    firstDigit=pow(firstDigit,2);
    lastDigit=pow(lastDigit,2);
    printf("square of first digit=%d\n",firstDigit);
    printf("square of last digit=%d\n", lastDigit);
    return 0;
}
```

***21. Write a C Program to input two digits number from user and display with reverse number on screen
(Hint : I/P : 32 O/P : 23)***

```
#include<stdio.h>
int main()
```

```

{
int a,b,var1,var2;
printf("Enter number");
scanf("%d",&a);
b=a%10;
a=a/10;
var1=b*10;
var2=a;
printf("after inversing value=%d",var1+var2);
return 0;
}

```

22. Write a C program to find out the quotient and remainder of two numbers. (Without using modulus (%) operator)

```

#include <stdio.h>
int main()
{
int divisor,divident,quotient=0,remainder;
printf("Enter divisor:");
scanf("%d",&divisor);
printf("Enter divident:");
scanf("%d",&divident);
while (divisor>=divident){
divisor=divisor-divident;
quotient=quotient+1;
}
remainder=divisor;
printf("quotient=%d\n",quotient);
printf("%d remainder=%d\n",remainder);
return 0;
}

```

}