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**Practical – 7: Program to implement User Defined Function and string manipulation functions.**

1. **Write a function named Swap, which will swap the values of two variables. (Use the concept of call by value).**

#include<stdio.h>

#include<conio.h>

void main()

{

void swap(int n1,int n2);

int n1,n2;

printf("Enter two numbers for swapping\n");

scanf("%d %d",&n1,&n2);

printf("Values before swapping is\nn1 = %d and n2 = %d",n1,n2);

swap(n1,n2);

getch();

}

void swap(int a,int b)

{

int temp;

temp=b;

b=a;

a=temp;

printf("\nValues after swapping is is\nn1 = %d and n2 = %d",a,b);

}

1. **Write a function named CheckPrime, which will check an input number is prime or not.**

#include<stdio.h>

#include<conio.h>

#include<math.h>

int i, flag = 0;

void main() {

void CheckPrime(int n);

int n;

printf("Enter any number to check whether it's prime or not: ");

scanf("%d", &n);

CheckPrime(n);

getch();

}

void CheckPrime(int n)

{

for(i = 2; i <= sqrt(n); i++) {

if(n % i == 0)

flag = 1;

}

if(flag == 1)

printf("Number is not Prime");

else

printf("Number is Prime");

}

1. **Program to implement strlen (), strcat (),strcpy () using the concept of Functions.**

**Using Strlen( ) function:**

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

char str1[20];

int k;

printf("Enter String\n");

gets(str1);

printf("Original String is \n");

puts(str1);

k=strlen(str1);

printf("Length of string : %d\n",k);

getch();

}

**Using Strcat ( ) function:**

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

char str1[20],str2[20];

int k;

printf("Enter String\n");

gets(str1);

printf("Enter Another String\n");

gets(str2);

strcat(str1,str2);

puts(str1);

getch();

}

**Using Strcpy ( ) function:**

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

char str1[20],str2[20];

int k;

printf("Enter String\n");

gets(str1);

strcpy(str2,str1);

printf("String Copy is \n");

puts(str2);

getch();

}

1. **Write a function named GetMax, that will find the maximum among array of numbers.**

#include<stdio.h>

#include<conio.h>

void main()

{

void input(int a[],int r1);

void GetMax(int a[],int r);

int a[10];

int i;

input(a,10);

GetMax(a,10);

}

void input(int a[],int r)

{

int i;

printf("Enter elements\n");

for(i=0;i<r;i++)

{

scanf("%d",&a[i]);

}

}

void GetMax(int c[],int r)

{

int i,t;

t=c[0];

for(i=0;i<r;i++)

{

if(c[i]>t)

{

t=c[i];

}

}

printf("Highest is : %d",t);

}

1. **Write a program to check whether the entered string is palindrome or not.**

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

char ch[100];

char ch1[100];

printf("Enter string\n");

gets(ch);

printf("Original String Entered is %s\n",ch);

strcpy(ch1,ch);

printf("Copy string is %s\n",ch1);

strrev(ch);

printf("Reverse string is %s\n",ch);

if(strcmp(ch,ch1)==0)

{

printf("%s is Palindrome String",ch);

}

else

{

printf("%s is not Palindrome String",ch);

}

getch();

}