```c
/*
 Titttle:- Implement a Menu Driven program of Factorial, Fibonacci and Palindrome by
 using switch case by implementing function
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 Date:- 15-07-2019
 DISCRIPTION:- In This Program a menu based implementation is held for some actions
 such as Fuctions, Fibonacci Series and Palindrome of a Word/name (String) using
 functions made for an individual action to be performed.
*/
#include <stdio.h>
#include <string.h>
 int fact(int num)
{
    int i,fact=1;
    for ( i = 1; i <= num; i++)
    {
        fact=fact*i;
    }
    printf("\nfactorial of a number %d is:%d\n",num,fact);
    return(fact);
}

 int fibo(int number)
{
    int a=0,b=1,fibo;
    printf("\n%d\t%d",a,b);

    for ( int i = 0; i < number-2; i++)
    {
        fibo=a+b;
        a=b;
        b=fibo;
        printf("\t%d",fibo);
    }
    printf("\n");

    return(fibo);
}

void Pal(char str[50])
{
    int len,i;
    int flag=0;
    len =strlen(str);
    for (i = 0; i < len; i++)
    {
        if (str[i]!=str[len-i-1])
        {
            flag=1;
            break;
        }
    }
    if (flag)
    {
```

```c
54              printf("The %s is not a palindrome\n",str );
55          }
56      else
57      {
58              printf("The %s is a palindrome\n",str);
59      }
60  }
61
62  int main()
63  {
64      int n,num,number;
65      char str[50];
66      while(1)
67      {
68          printf("\nEnter the choice\n1.Find Factorial\n2.Find Fibonacci\n3.Find
                  Palindrome\n0.Exit\n");
69          scanf("%d",&n);
70          switch(n)
71          {
72              case 1:
73                  printf("\nEnter a number for it's Factorial: ");
74                  scanf("%d",&num);
75                  fact(num);
76                  break;
77              case 2:
78                  printf("\nEnter the range for Fibonacci Series: ");
79                  scanf("%d",&number);
80                  fibo(number);
81                  break;
82              case 3:
83                  printf("\nEnter a string to know it's a Palindrome or not:");
84                  scanf("%s",str);
85                  Pal(str);
86                  break;
87              case 0:
88                  printf("\nExiting the program\n");
89                  return(0);
90                  break;
91              default:
92                  printf("\nInput error\nEnter a VALID no.\n");
93          }
94      }
95  }
96
```