Program 1

//Program to create user defined function called cube that will print cube of numbers form 1 to 10

```
#include <stdio.h>
int square(int i)
{
   return (i * i * i);
}

int main()
{
   for (int i = 1; i <= 10; i++)
   {
      printf("%d^3 = %d\n", i, square(i));
   }
   printf("\n");
}
```

```
vipul@whiplash:~/Codes/Practicals/Experiment7$ ./cube_output
1^3 = 1
2^3 = 8
3^3 = 27
4^3 = 64
5^3 = 125
6^3 = 216
7^3 = 343
8^3 = 512
9^3 = 729
10^3 = 1000
```

Program 2

//Program to reverse a number using functions[call by value]

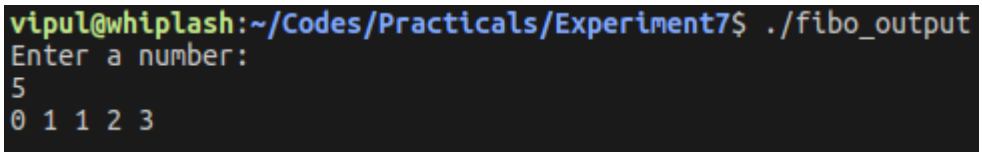
```
#include <stdio.h>
int reverse(int num)
{
   int rev = 0;
   while (num > 0)
   {
      rev = rev * 10 + num % 10;
      num /= 10;
   }
   return rev;
}

int main()
{
   int num;
   printf("Enter a number:\n");
   scanf("%d", &num);
   printf("\nReversed number = %d\n\n", reverse(num));
}
```

```
vipul@whiplash:~/Codes/Practicals/Experiment7$ ./reverse_output
Enter a number:
132

Reversed number = 231
```

Program 3

//Program to generate fibonacci series using functions

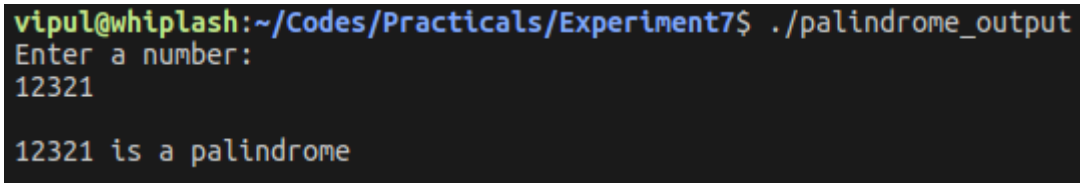
```
#include <stdio.h>
void gen(int num)
{
   int i = 1, f = 0, s = 1, sum = 0;
   for (; i <= num; i++)
   {
      printf("%d ", f);
      sum = f + s;
      f = s;
      s = sum;
   }
}

int main()
{
   int num;
   printf("Enter a number:\n");
   scanf("%d", &num);
   gen(num);
   printf("\n\n");
}
```



Program 4

//Program to accept a number from the user and check if it is a palindrome or not using functions

```
#include <stdio.h>
int chk(int num)
{
   int rev = 0;
   while (num > 0)
   {
      rev = rev * 10 + num % 10;
      num /= 10;
   }
   return rev;
}

int main()
{
   int num, rev;
   printf("Enter a number:\n");
   scanf("%d", &num);
   rev = chk(num);
   if (num == rev)
      printf("\n%d is a palindrome\n\n", rev);
   else
      printf("\n%d is not a palindrome\n\n", rev);
}
```



Program 5

// Find factorial of a number using recursion

```
#include <stdio.h>
int cal(int num)
{
   if (num >= 1)
      return (num * cal(num - 1));
   else
      return 1;
}

int main()
{
   int num, fact;
   printf("Enter a number:\n");
   scanf("%d", &num);
   fact = cal(num);
   printf("\n%d! = %d\n\n", num, fact);
}
```