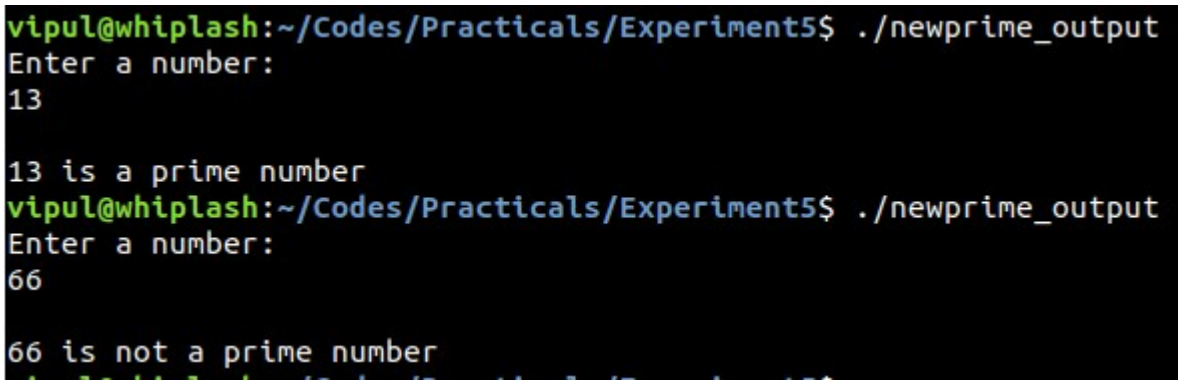
Program 1

//Program to find if number is a prime number or not via While loop.

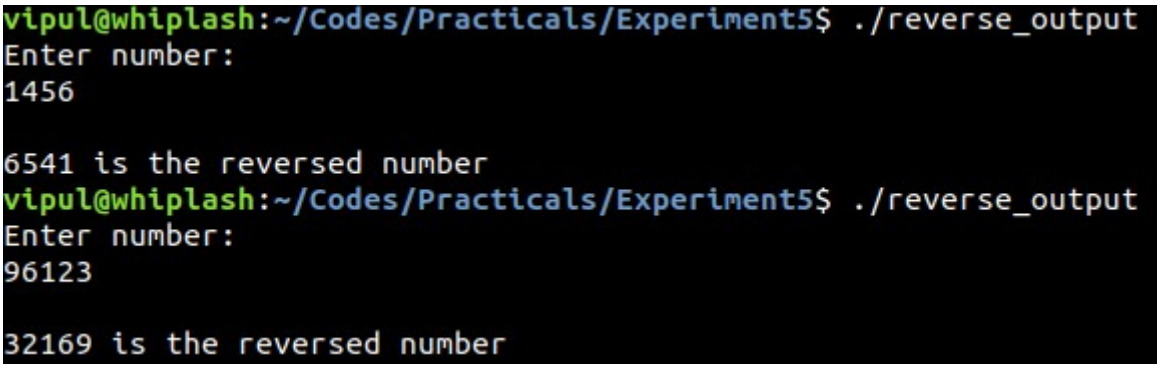
```
#include<stdio.h>
int main(){
	int i=0,num,ctr=0;
	printf("Enter a number:\n");
	scanf("%d",&num);
	if(num==1)
		printf("\n1 is not a prime number\n");

	while(i<=(num/2)){
		if(num%i==0)
			ctr++;

		if(ctr>=2){
			printf("\n%d is not a prime number\n",num);
			break;
		}

		i++;
	}
	if(ctr<2 && num!=1)
		printf("\n%d is a prime number\n",num);
}
```



Program 2

// Program to reverse a number via For loop.

```
#include<stdio.h>
int main(){
        int num, rev=0;
        printf("Enter number:\n");
        scanf("%d",&num);
        for(;num>0;){
        rev=rev*10+num%10;
        num/=10;
        }
        printf("\n%d is the reversed number\n",rev);
}
```



Program 3

```
// Program to find sum of digits via While loop

#include<stdio.h>
int main(){
        int num,sum=0;
        printf("Enter a number:\n");
        scanf("%d",&num);
        while(num>0){
                sum+=num%10;
                num/=10;
        }
        printf("\nThe sum of digits is %d\n",sum);
}
```

```
vipul@whiplash:~/Codes/Practicals/Experiment5$ ./sumdigits_output
Enter a number:
465

The sum of digits is 15
vipul@whiplash:~/Codes/Practicals/Experiment5$ ./sumdigits_output
Enter a number:
250

The sum of digits is 7
```

Program 4

```
// Program to print multiplication table via For loop

#include<stdio.h>
int main(){
        int num;
        printf("Enter number whose multiplication table you wish to see:\n");
        scanf("%d",&num);
        printf("\n");
        for(int i=0;i<=10;i++)
                printf("%d * %d = %d\n",num,i,num*i);

}
```

```
vipul@whiplash:~/Codes/Practicals/Experiment5$ ./multiply_output
Enter number whose multiplication table you wish to see:
5

5 * 0 = 0
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50
```

Program 5

// Program to count number of odd and even numbers between 1-100 using for loop.

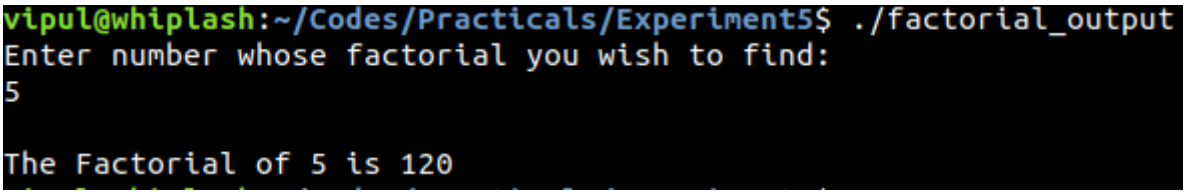
```
#include<stdio.h>
int main()
{
	int even=0,odd;
	for(int i=1;i<=100;i++){
		if(i%2==0)
			even++;
	}
	odd=100-even;
	printf("Number of Odd Numbers between 1-100 are %d\nNumber of Even Numbers between 1-100 are %d\n",odd,even);

}
```

```
vipul@whiplash:~/Codes/Practicals/Experiment5$ ./odd_even_output
Number of Odd Numbers between 1-100 are 50
Number of Even Numbers between 1-100 are 50
```

Program 6

// Program to find factorial of a number using For loop.

```
#include<stdio.h>
int main(){
        int num,fact=1;
        printf("Enter number whose factorial you wish to find:\n");
        scanf("%d",&num);
        for(int i=1;i<=num;i++)
                fact*=i;
        printf("\nThe Factorial of %d is %d\n",num,fact);
}
```



Program 7

//Program to find fibonacci series using For loop.

```
#include<stdio.h>
int main()
{
	int n,f=0,s=1,sum=0;
	printf("Enter number of terms:\n");
	scanf("%d",&n);
	printf("\n");
	for(int i=1;i<=n;i++){
		printf("%d ",f);
		sum=f+s;
		f=s;
		s=sum;
	}
	printf("\n");
}
```

```
vipul@whiplash:~/Codes/Practicals/Experiment5$ ./fibonacci_output
Enter number of terms:
10

0 1 1 2 3 5 8 13 21 34
```