

OOJ LAB---WEEK 2

PROGRAM—3

```
#include<stdio.h>

int main() {

    int rows,i,j,number = 4;

    printf("Enter the number of rows:");

    scanf("%d",&rows);

    for(i=4;i<=rows;i++) {

        for(j=4;j<=4;j++) {

            printf("%d",number);

            ++number;

        }

        printf("\n");

    }

    return 0;

}
```



```
input
(gdb) run
Starting program: /home/a.out
Enter the number of rows:12
4
5
6
7
8
9
10
11
12
* [Inferior 1 (process 1237) exited normally]
(gdb) □
```

PROGRAM—4

```
#include <stdio.h>

int main()

{
```

```

int CIE,SEE;

float tot;

printf("Enter the CIE(50) and SEE(100) marks of the student respectively\n");

scanf("%d%d",&CIE,&SEE);

tot = (SEE/2.0) + CIE;

if(CIE>=20 && SEE>=40)

{

    if(tot>89 && tot<=100)

        printf("Grade: S");

    else if(tot>79 && tot<=89)

        printf("Grade: A");

    else if(tot>69 && tot<=79)

        printf("Grade: B");

    else if(tot>59 && tot<=69)

        printf("Grade: C");

    else if(tot>49 && tot<=59)

        printf("Grade: D");

    else

        printf("Grade: E");

}

else if(CIE>=20 && SEE<40)

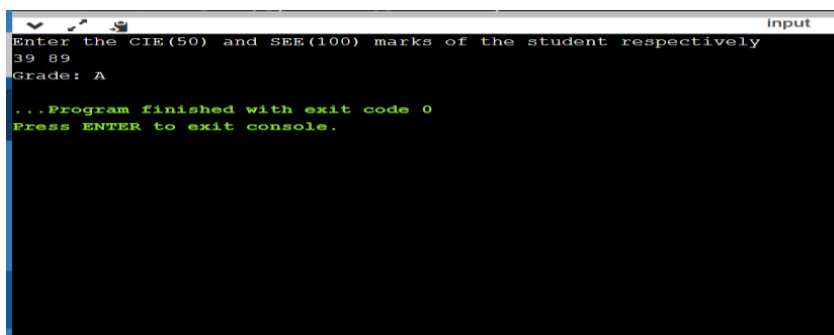
    printf("Grade: F");

else

    printf("Not eligible, grade not applicable");

}

```



```

Input
Enter the CIE(50) and SEE(100) marks of the student respectively
39 89
Grade: A
...Program finished with exit code 0
Press ENTER to exit console.

```

PROGRAM—5

```
#include<stdio.h>

int main()
{
    int low,high,n;

    int count;

    int div;

    printf("Enter the start number of the range:\n");

    scanf("%d",&low);

    printf("Enter the end number of the range:\n");

    scanf("%d",&high);

    printf("The prime numbers between the given range are:\n");


    for(n=low;n<=high;n++)
    {
        int count=0;

        for(div=2;div*div<=n;div++)
        {
            if(n%div==0){

                count++;

                break;
            }
        }

        if(count==0)
        {
```

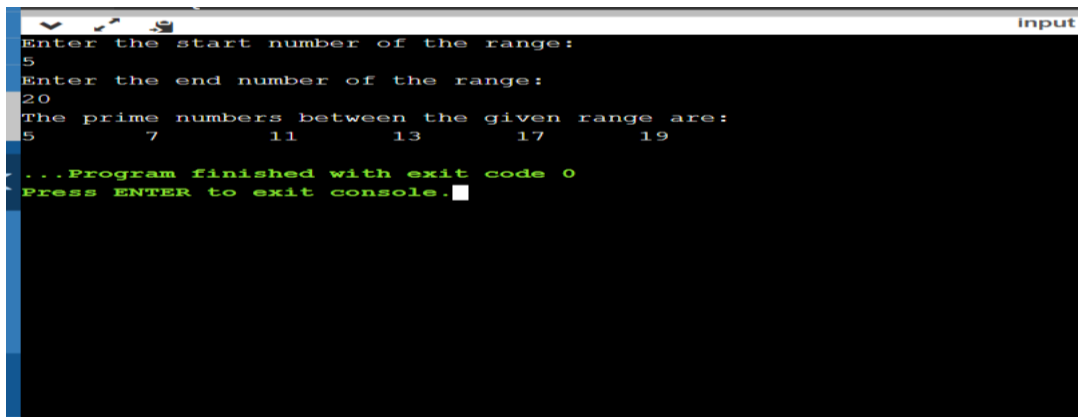
```

        printf("%d\t",n);

    }

}

```



The screenshot shows a console window with a title bar that includes a 'Input' button. The program prompts the user to enter the start and end numbers of a range. The user enters 5 and 20. The program then displays the prime numbers in that range: 5, 7, 11, 13, 17, and 19. It concludes with a message indicating the program finished with exit code 0 and prompts the user to press ENTER to exit the console.

```

Enter the start number of the range:
5
Enter the end number of the range:
20
The prime numbers between the given range are:
5      7      11     13     17     19
...Program finished with exit code 0
Press ENTER to exit console.

```

PROGRAM—6

```

#include <stdio.h>

#include <math.h>

#include <stdlib.h>

int main() {

    int c=4;

    float a,v,r,h;

    while(c)

    {

        printf("Enter the choice of shape:\n");

        printf("1.Cylinder\n2.Cone\n3.Sphere\n0.Exit\n");

        scanf("%d",&c);

        switch(c)

        {

            case 1:printf("Enter radius:\n");

```

```

scanf("%f",&r);

printf("Enter height:\n");

scanf("%f",&h);

a=(2*3.14*r*h)+(2*3.14*r*r);

v=(3.14*r*r*h);

printf("Area: %f\nVolume: %f\n",a,v);

break;

case 2:printf("Enter radius:\n");

scanf("%f",&r);

printf("Enter height:\n");

scanf("%f",&h);

a=(3.14*r)*(r+sqrt((h*h)+(r*r)));

v=(3.14*r*r*h)/3.0;

printf("Area: %f\nVolume: %f\n",a,v);

break;

case 3:printf("Enter radius:\n");

scanf("%f",&r);

a=4*3.14*r*r;

v=(4*3.14*r*r*r)/3.0;

printf("Area: %f\nVolume: %f\n",a,v);

break;

case 0:printf("Exit\n");

exit(0);

default:printf("Invalid choice\n");

```

```
}  
  
}  
  
return 0;  
  
}
```

 F:\666666.exe

Enter the choice of shape:

1.Cylinder
2.Cone
3.Sphere
0.Exit

1

Enter radius:

9

Enter height:

8

Area: 960.840027

Volume: 2034.719971

Enter the choice of shape:

1.Cylinder
2.Cone
3.Sphere
0.Exit

2

Enter radius:

1

Enter height:

2

Area: 10.161253

Volume: 2.093333

Enter the choice of shape:

1.Cylinder
2.Cone
3.Sphere
0.Exit

3

Enter radius:

13

Area: 2122.639893

Volume: 9198.106445

Enter the choice of shape:

1.Cylinder
2.Cone
3.Sphere
0.Exit

0

Exit

Process returned 0 (0x0) execution time : 32.706 s

Press any key to continue.