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Dept-Information Technology

2nd year

Subject-Programming Lab

ROLL-2021ITB060.

Sem-3rd

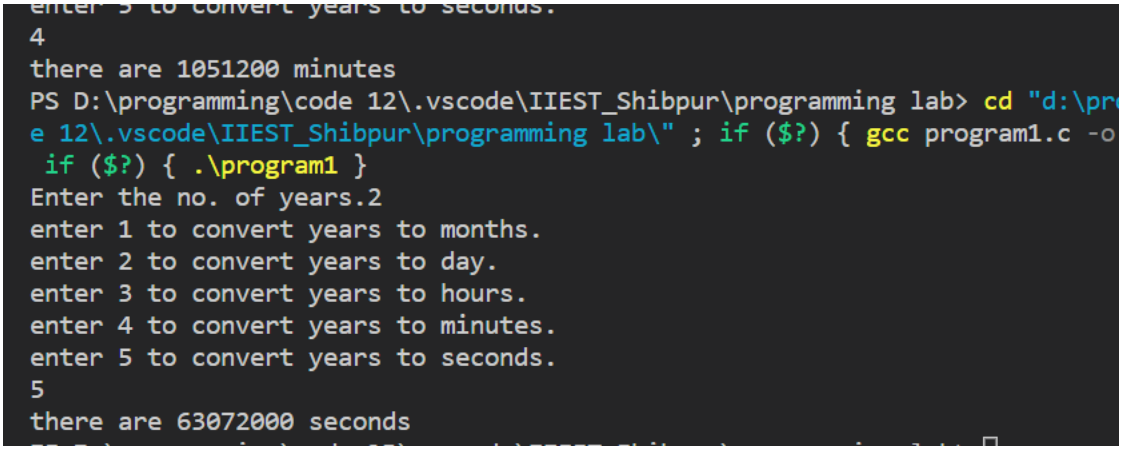
```
// 1.WAP to input 4 numbers and find the largest one by using ladder of
if -else array.

#include<stdio.h>
int main()
{
int a,b,c,d,e;
printf("enter the 5 no.");
scanf("%d%d%d%d%d",&a,&b,&c,&d,&e);

if(a>=b && a>=c && a>=d && a>=e){
 printf("the largest no. is %d\n",a);
}

else if(b>=a && b>=c && b>=e && b>=d){
 printf("the largest no. is %d\n",b);
}
else if(c>=a && c>=b && c>=d && c>=e){
 printf("the largest no. is %d\n",c);
}
else if(d>=a && d>=b && d>=c && d>=e){
 printf("the largest no. is %d\n",d);
}
else if(e>=a && e>=b && e>=c && e>=d){
 printf("the largest no. is %d\n",e);
}


return 0;
}
```

```
  .\program1 }
enter the 5 no.11
12
22
22
45
the largest no. is 45
PS D:\programming\code 12\.vscode\IIEST_Shibpu
```

```
//2.// to to convert years to days ,months,minutes,seconds,hours.
#include<stdio.h>
int main()
{
long long int a,num,i=0;
printf("Enter the no. of years.");
scanf("%d",&a);
printf("enter 1 to convert years to months.\n");
printf("enter 2 to convert years to day.\n");
```

```
printf("enter 3 to convert years to hours.\n");
printf("enter 4 to convert years to minutes.\n");
printf("enter 5 to convert years
{
case 1:
printf("there are %d months\n",a*12);
break;
case 2:
printf("there are %d days\n",a*365);
break;
case 3:
printf("there are %d hours\n",a*365*24);
break;
case 4:
printf("there are %d minutes\n",a*365*24*60);
break;
case 5:
printf("there are %d seconds\n",a*365*24*60*60);
break;
}


return 0;
}
```

```
PS D:\programming\code 12\.vscode\IIEST_Shibpur\programming lab> cd "d:\programming\cod
e 12\.vscode\IIEST_Shibpur\programming lab\" ; if ($?) { gcc program1.c -o program1 } ;
 if ($?) { .\program1 }
Enter the no. of years.2
enter 1 to convert years to months.
enter 2 to convert years to day.
enter 3 to convert years to hours.
enter 4 to convert years to minutes.
enter 5 to convert years to seconds.
2
there are 730 days
PS D:\programming\code 12\.vscode\IIEST_Shibpur\programming lab> cd "d:\programming\cod
e 12\.vscode\IIEST_Shibpur\programming lab\" ; if ($?) { gcc program1.c -o program1 } ;
 if ($?) { .\program1 }
Enter the no. of years.2
enter 1 to convert years to months.
enter 2 to convert years to day.
enter 3 to convert years to hours.
enter 4 to convert years to minutes.
.vscode\IIEST_Shibpur\programming lab\" ; if ($?) { gcc program1.c -o program1 } ; if (
$?) { .\program1 }
Enter the no. of years.2
enter 1 to convert years to months.
enter 2 to convert years to day.
enter 3 to convert years to hours.
enter 4 to convert years to minutes.
enter 5 to convert years to seconds.
3
there are 17520 hours
```


enter 5 to convert years to seconds.
4
there are 1051200 minutes
PS D:\programming\code 12\.vscode\IIEST_Shibpur\programming lab> cd "d:\pr
e 12\.vscode\IIEST_Shibpur\programming lab\" ; if ($?) { gcc program1.c -o
 if ($?) { .\program1 }
Enter the no. of years.2
enter 1 to convert years to months.
enter 2 to convert years to day.
enter 3 to convert years to hours.
enter 4 to convert years to minutes.
enter 5 to convert years to seconds.
5
there are 63072000 seconds

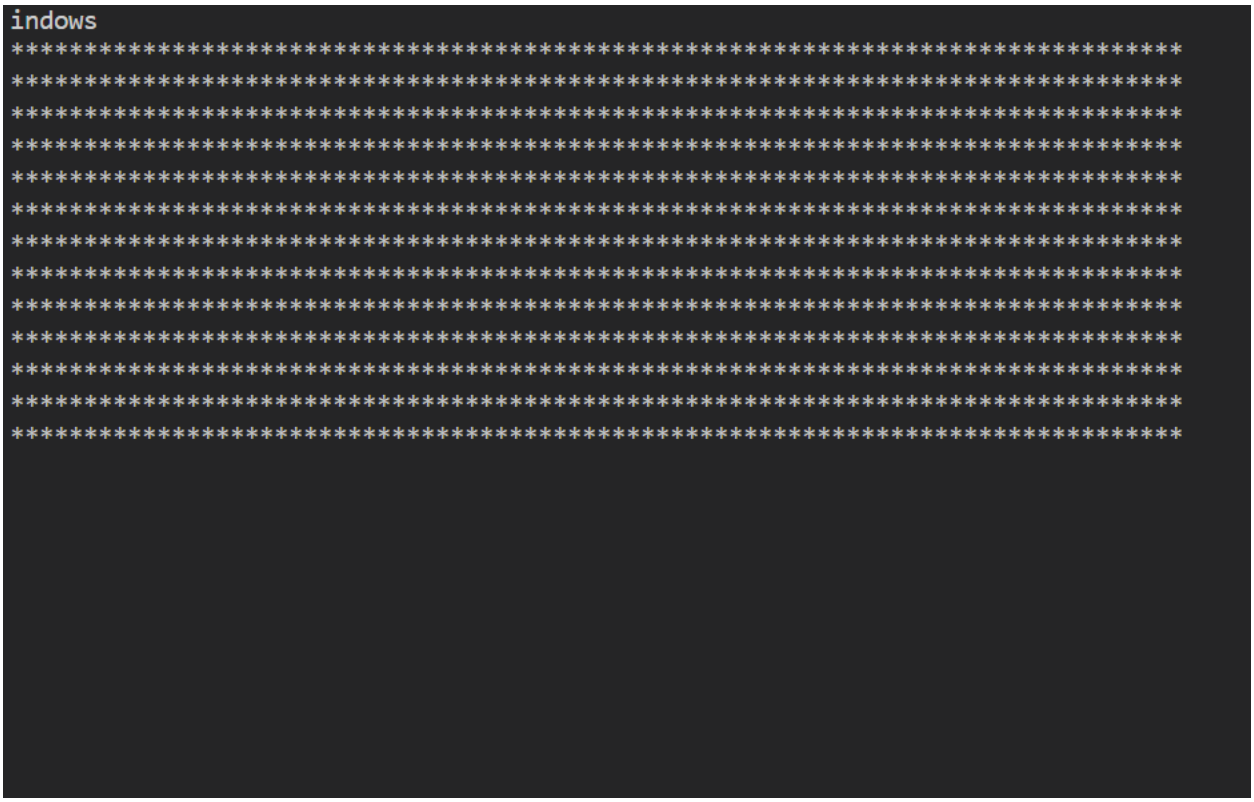
```
//write a program to print stars of different patterns




#include <stdio.h>
int main()
{

    int a;
    printf("press 1 to print starts in full screen\n");
    printf("press 2 to print starts in half screen\n");
    printf("press 3 to print starts in top 3 lines in screen\n");
    printf("press 4 to print starts in nottom 3 lines in screen\n");
    printf("press 5 to print starts in right angled triangle in screen\n");
    printf("press 6 to print starts in isosceles triangle screen\n");
    printf("press 7 to print starts in circles screen\n");
    printf("press 8 to print starts in diamond blank screen\n");
    scanf("%d", &a);
    switch (a)
    {
    case 1:
        for (int i = 0; i < 24; i++)
        {
            for (int j = 0; j < 80; j++)
            {
                printf("*");
            }
        }
        break;

    case 2:
        for (int i = 0; i < 24; i++)
        {
            if (i <= 12)
            {
                for (int j = 0; j < 80; j++)
                {
                    printf("*");
                }
                printf("\n");
            }
            else
            {
                printf("\n");
            }
        }

        break;

    case 3:
```

```
    for (int i = 0; i < 24; i++)
    {
        if (i <= 3)
        {
            for (int j = 0; j < 80; j++)
                printf("*");
            printf("\n");
        }
        else
        {
            printf("\n");
        }
    }
    break;

case 4:
    for (int i = 0; i < 24; i++)
    {
        if (i > 21)
        {
            for (int j = 0; j < 80; j++)
                printf("*");
            printf("\n");
        }
        else
        {
            printf("\n");
        }
    }
    break;

case 5:
    for (int i = 0; i < 24; i++)
    {
        for (int j = 0; j < i; j++)
        {
            printf("*");
        }
        printf("\n");
    }
    break;

case 6:
    for (int i = 1; i <= 24; i++)
    {
        for (int j = 1; j <= 24 - i; j++)
        {
            printf(" ");
        }
        for (int k = 1; k <= i; k++)
        {
            printf("*");
```

```
            }
            for (int k = 1; k < i; k++)
            {
                printf("*");
            }

            printf("\n");
        }

        break;
    case 7:
    int radius;
                printf("Enter radius (less than or equal to 10):\n");
                scanf("%d", &radius);


                //centre at 20,20
                char circle [41][41];
                for (int i = 0; i < 40; i++)
                {
                    for (int j = 0; j < 40; j++)
                    {
                        int dist = abs(20 - i) * abs(20 - i) + abs(20 -
j) * abs(20 - j);

                        if ((dist <= (radius * radius + 5)))
                        {
                            circle[i][j] = '*';
                        }
                        else
                        {
                            circle[i][j] = ' ';
                        }
                    }
                }

                for (int row = 0; row < 40; row++)
                {

                    for (int col = 0; col < 40; col++)
                    {
                        printf("%c ", circle[row][col]);

                    }

                    printf("\n");

                }
                break;
    case 8:

        for (int i = 1; i <= 24; i++)
```

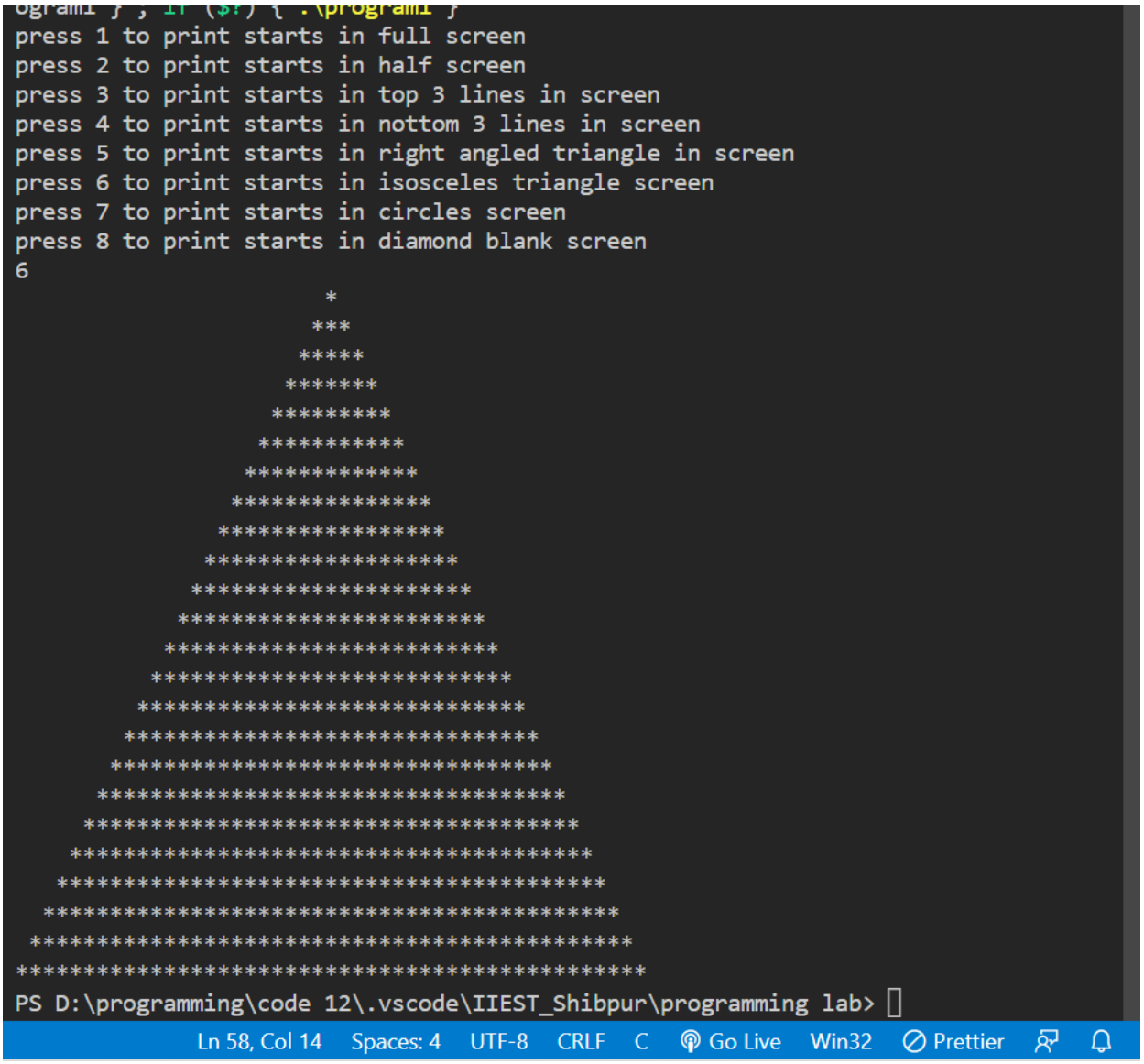
```
        {
            for (int j = i; j <= 24; j++)
            {
                printf("*");
            }

            for (int j = 1; j <= (2 * i - 2); j++)
            {
                printf(" ");
            }

            for (int j = i; j <= 24; j++)
            {
                printf("*");
            }

            printf("\n");
        }

        // Loop to print lower half of the pattern
        for (int i = 1; i <= 24; i++)
        {
            for (int j = 1; j <= i; j++)
            {
                printf("*");
            }

            for (int j = (2 * i - 2); j < (2 * 24 - 2); j++)
            {
                printf(" ");
            }

            for (int j = 1; j <= i; j++)
            {
                printf("*");
            }

            printf("\n");
        }

        break;
    }

    return 0;
}
```

```
press 1 to print starts in full screen
 press 3 to print starts in top 3 lines in screen
press 4 to print starts in nottom 3 lines in screen
press 5 to print starts in right angled triangle in screen
press 6 to print starts in isosceles triangle screen
press 7 to print starts in circles screen
press 8 to print starts in diamond blank screen
1
```


indows

```
ram1 } ; if ($?) { .\program1 }
press 1 to print starts in full screen
press 2 to print starts in half screen
press 3 to print starts in top 3 lines in screen
press 4 to print starts in nottom 3 lines in screen
press 5 to print starts in right angled triangle in screen
press 6 to print starts in isosceles triangle screen
press 7 to print starts in circles screen
press 8 to print starts in diamond blank screen
3
**********************************************************************************
**********************************************************************************
**********************************************************************************
**********************************************************************************
```

```
ogram1 } ; if ($?) { .\program1 }
press 1 to print starts in full screen
press 2 to print starts in half screen
press 3 to print starts in top 3 lines in screen
press 4 to print starts in nottom 3 lines in screen
press 5 to print starts in right angled triangle in screen
press 6 to print starts in isosceles triangle screen
press 7 to print starts in circles screen
press 8 to print starts in diamond blank screen
4

**********************************************************************************
**********************************************************************************
**********************************************************************************
```


ogram1 } ; if ($?) { .\program1 }
press 1 to print starts in full screen
press 2 to print starts in half screen
press 3 to print starts in top 3 lines in screen
press 4 to print starts in nottom 3 lines in screen
press 5 to print starts in right angled triangle in screen
press 6 to print starts in isosceles triangle screen
press 7 to print starts in circles screen
press 8 to print starts in diamond blank screen
6
PS D:\programming\code 12\.vscode\IIEST_Shibpur\programming lab>
Ln 58, Col 14
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

```
ogram1 } ; if ($?) { .\program1 }
press 1 to print starts in full screen
press 2 to print starts in half screen
press 3 to print starts in top 3 lines in screen
press 4 to print starts in nottom 3 lines in screen
press 5 to print starts in right angled triangle in screen
press 6 to print starts in isosceles triangle screen
press 7 to print starts in circles screen
press 8 to print starts in diamond blank screen
5

*
**
***
****
*****
******
*******
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*****************
******************
*******************
********************
*********************
**********************
PS D:\programming\code 12\.vscode\IIEST_Shibpur\programming lab>
```


Ln 58, Col 14
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Pretti

```
press 8 to print starts in diamond blank screen
7
Enter radius (less than or equal to 10):
9
```