

File Edit Selection View Go Run ...

EXPLORER ... binary.c bubble.c ebill.c Matrix.c

LAB simpleCalc.c > ...

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 int main()
4 {
5     int a, b, res;
6     char op;
7     printf("enter the expression : ");
8     scanf("%d %c %d", &a, &op, &b);
9     switch (op)
10    {
11        case '+':
12            res = a + b;
13            break;
14        case '-':
15            res = a - b;
16            break;
17        case '*':
18            res = a * b;
19            break;
20        case '%':
21            res = a % b;
22            break;
23        case '/':
24            if (b != 0)
25                res = a / b;
26            else
27            {
28                printf("division by zero is not possible\n");
29                exit(0);
30            }
31    }
32    printf("%d %c %d = %d\n", a, op, b, res);
```

vikram@DELL-PC: /mnt/c/user

```
vikram@DELL-PC:~$ cd ..
vikram@DELL-PC:/home$ cd ..
vikram@DELL-PC:/$ cd mnt/c/users/'vikram seervi'/desktop/coding/lab/
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ls
Matrix.c  binary.exe  ebill.c  pattern.exe  simpleCalc.c
Matrix.exe  bubble.c  ebill.exe  quad.c  simpleCalc.exe
binary.c  bubble.exe  pattern.c  quad.exe
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./simpleCalc.exe
enter the expression : 5+3
5 + 3 = 8
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./simpleCalc.exe
enter the expression : 5-3
5 - 3 = 2
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./simpleCalc.exe
enter the expression : 5*3
5 * 3 = 15
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./simpleCalc.exe
enter the expression : 5/3
5 / 3 = 1
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./simpleCalc.exe
enter the expression : 5%3
5 % 3 = 2
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./simpleCalc.exe
enter the expression : 5/0
division by zero is not possible
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$
```

```
File Edit Selection View Go Run ...  
EXPLORER ... binary.c bubble.c ebill.c Matrix.c  
LAB  
binary.c  
binary.exe  
bubble.c  
bubble.exe  
ebill.c  
ebill.exe  
Matrix.c  
Matrix.exe  
pattern.c  
pattern.exe  
quad.c  
quad.exe  
simpleCalc.c  
simpleCalc.exe  
quad.c > ...  
1 #include <stdio.h>  
2 #include <stdlib.h>  
3 #include <math.h>  
4 int main()  
5 {  
6     float a, b, c, d, root1, root2, real, imag;  
7     printf("Enter the value of a,b,c\n");  
8     scanf("%f %f %f", &a, &b, &c);  
9     if (a == 0)  
10    {  
11        printf("Invalid coefficients\n");  
12        exit(0);  
13    }  
14    d = b * b - 4 * a * c;  
15    if (d == 0)  
16    {  
17        printf("the roots are real and equal\n");  
18        root1 = -b / (2 * a);  
19        root2 = -b / (2 * a);  
20        printf("root1 = %f\nroot2 = %f\n", root1, root2);  
21    }  
22    else if (d > 0)  
23    {  
24        printf("The roots are real and distinct\n");  
25        root1 = (-b + sqrt(d)) / (2 * a);  
26        root2 = (-b - sqrt(d)) / (2 * a);  
27        printf("root1 = %f\nroot2 = %f\n", root1, root2);  
28    }  
29    else  
30    {  
31        printf("The roots are imaginary\n");  
32        real = -b / (2 * a);  
33        imag = sqrt(-d) / (2 * a);  
34        printf("root1 = %f + i %f\nroot2 = %f - i %f\n",  
35               real, imag, real, imag);  
36    }  
    return 0;  
}
```

```
vikram@DELL-PC: /mnt/c/users/ ...  
vikram@DELL-PC:~$ cd ..  
vikram@DELL-PC:/home$ cd ..  
vikram@DELL-PC:~$ cd mnt/c/users/'vikram seervi'/desktop/coding/lab/  
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ls  
Matrix.c    binary.exe  ebill.c    pattern.exe  simpleCalc.c  
Matrix.exe  bubble.c   ebill.exe  quad.c       simpleCalc.exe  
binary.c    bubble.exe  pattern.c  quad.exe  
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./quad.exe  
Enter the value of a,b,c  
0      0      1  
Invalid coefficients  
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./quad.exe  
Enter the value of a,b,c  
1      6      9  
the roots are real and equal  
root1 = -3.000000  
root2 = -3.000000  
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./quad.exe  
Enter the value of a,b,c  
1      -5      3  
The roots are real and distinct  
root1 = 4.302776  
root2 = 0.697224  
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./quad.exe  
Enter the value of a,b,c  
1      4      7  
The roots are imaginary  
root1 = -2.000000 + i 1.732051  
root2 = -2.000000 - i 1.732051  
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$
```

FileEditSelectionViewGoRun

EXPLORERBINARYC binary.cbubble.cbeybill.cMatrix.cpattern.cquad.ceybill.exeeybill.exe

LABbinary.cbubble.cbeybill.cMatrix.cpattern.cquad.ceybill.exeeybill.exe

eybill.cmain()

```
1#include <stdio.h>
2int main()
3{
4    char name[20];
5    int units;
6    float charges;
7    printf("enter the name of the user and units consumed\n");
8    scanf("%s %d", &name, &units);
9    if (units <= 200)
10        charges = units * 0.80;
11    else if (units <= 300)
12        charges = 200 * 0.80 + (units - 200) * 0.90;
13    else
14        charges = 200 * 0.80 + 100 * 0.90 + (units - 300) * 1.0;
15    charges = charges + 100;
16    if (charges > 400)
17        charges = charges + 0.15 * charges;
18    printf("%s has to pay rupees %f\n", name, charges);
19}
```

PROBLEMSOUTPUTTERMINALPORTSDEBUG CONSOLE

Vikram@DELL-PC MINGW64 ~/Desktop/Coding/Lab

\$./eybill.exe

enter the name of the user and units consumed

vikram

200

vikram has to pay rupees 260.000000

Vikram@DELL-PC MINGW64 ~/Desktop/Coding/Lab

\$./eybill.exe

enter the name of the user and units consumed

vikram

400

vikram has to pay rupees 517.500000

bash

pwsh

wsl

Ln 19, Col 2Spaces: 4UTF-8CRLF{} CWin32

000

Type here to search

USD/EUR +0.28%

ENG

10:03 PM10-12-2023

File Edit Selection View Go Run ...

EXPLORER ... binary.c bubble.c ebill.c Matrix.c

LAB

- binary.c
- binary.exe
- bubble.c
- bubble.exe
- ebill.c
- ebill.exe
- Matrix.c
- Matrix.exe
- pattern.c
- pattern.exe
- quad.c
- quad.exe
- simpleCalc.c
- simpleCalc.exe

pattern.c > ...

```
1 #include <stdio.h>
2 int main()
3 {
4     int row, i, j;
5     printf("Enter the number of rows:");
6     scanf("%d", &row);
7     for (i = 1; i <= row; i++)
8     {
9         for (j = 1; j <= row - i; j++)
10        {
11            printf(" ");
12        }
13        for (j = 1; j <= i; j++)
14        {
15            printf("%d", j);
16        }
17        for (j = i - 1; j >= 1; j--)
18        {
19            printf("%d", j);
20        }
21        printf("\n");
22    }
23 }
```

> OUTLINE
> TIMELINE

vikram@DELL-PC: /mnt/c/user

```
vikram@DELL-PC:~$ cd ..
vikram@DELL-PC:/home$ cd ..
vikram@DELL-PC:$ cd mnt/c/users/'vikram seervi'/desktop/coding/lab/
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ls
Matrix.c  binary.exe  ebill.c  pattern.exe  simpleCalc.c
Matrix.exe bubble.c  ebill.exe quad.c      simpleCalc.exe
binary.c  bubble.exe  pattern.c quad.exe
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./pattern.
exe
Enter the number of rows:4
1
121
12321
1234321
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./pattern.
exe
Enter the number of rows:3
1
121
12321
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./pattern.
exe
Enter the number of rows:5
1
121
12321
1234321
123454321
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$
```