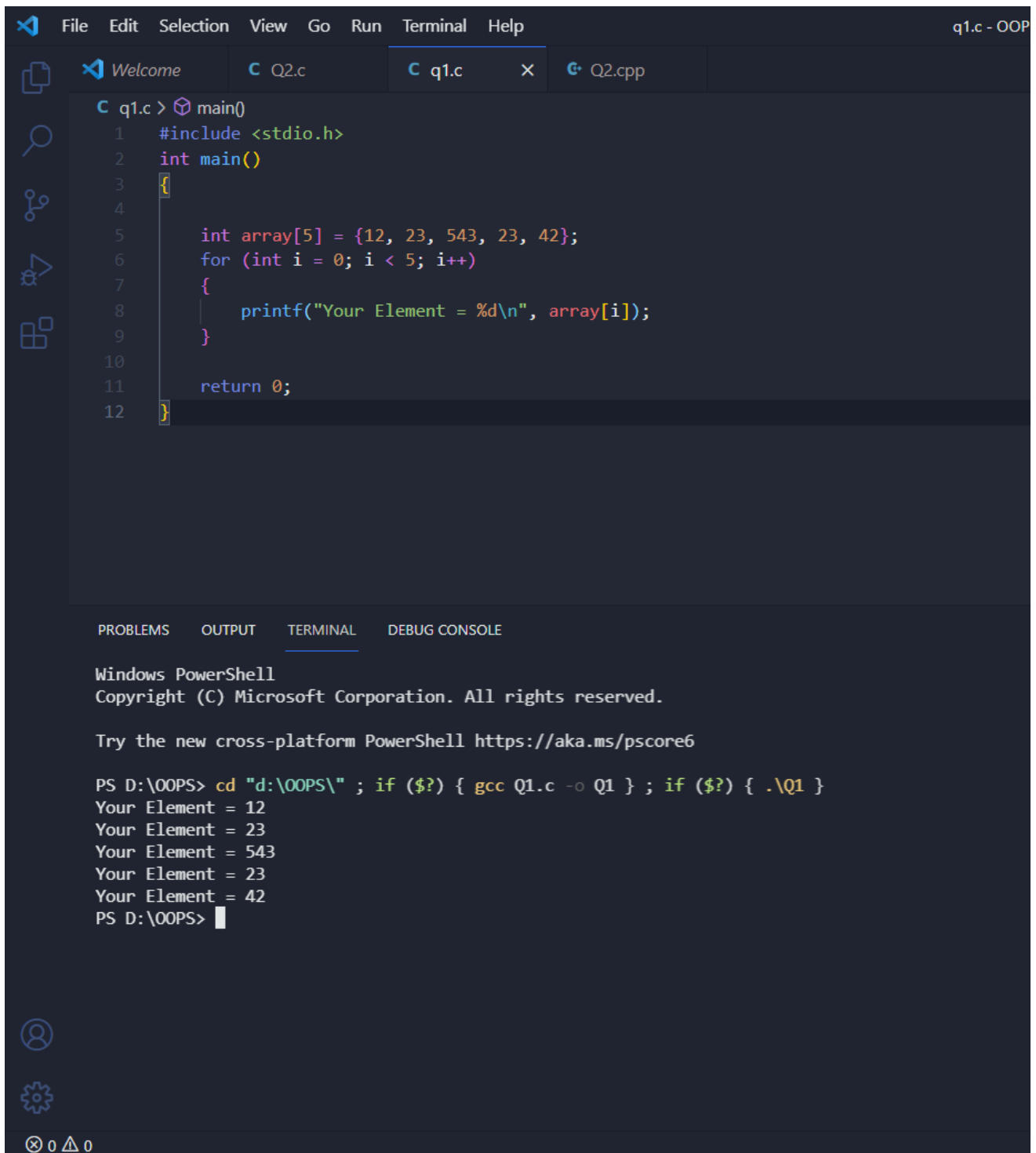


ANAND SALOKIYA

20100BTCSBS07455

1. Write a program for store elements in array.



The image shows a Visual Studio Code editor window with a dark theme. The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. The title bar on the right says 'q1.c - OOP'. The editor has three tabs: 'Welcome', 'Q2.c', and 'q1.c'. The 'q1.c' tab is active, showing a C program. The code is as follows:

```
1  #include <stdio.h>
2  int main()
3  {
4
5      int array[5] = {12, 23, 543, 23, 42};
6      for (int i = 0; i < 5; i++)
7      {
8          printf("Your Element = %d\n", array[i]);
9      }
10
11     return 0;
12 }
```

Below the editor, the 'TERMINAL' tab is selected, showing the output of the program. The terminal text is:

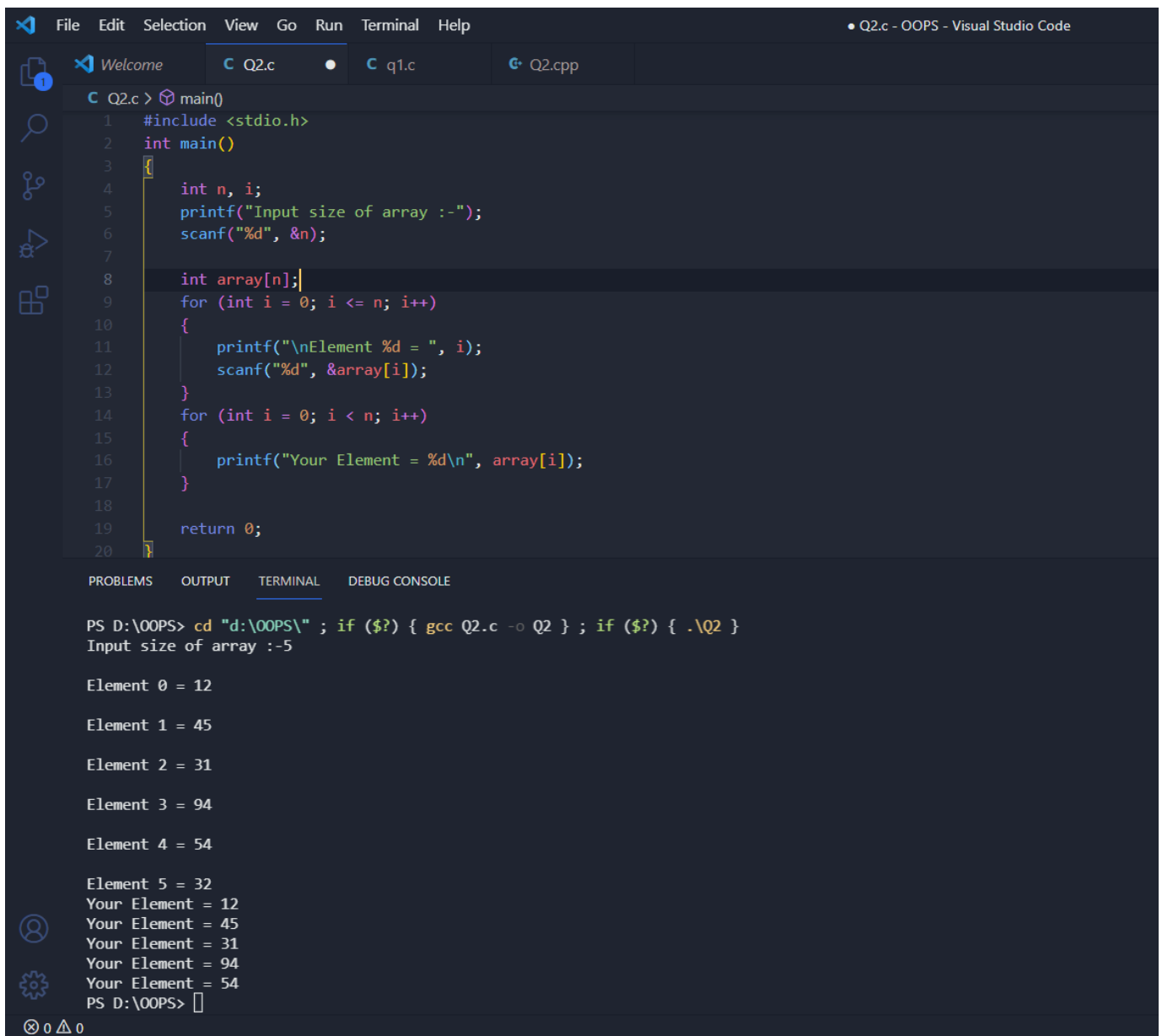
```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\OOPS> cd "d:\OOPS\" ; if ($?) { gcc Q1.c -o Q1 } ; if ($?) { .\Q1 }
Your Element = 12
Your Element = 23
Your Element = 543
Your Element = 23
Your Element = 42
PS D:\OOPS>
```

At the bottom left of the editor, there are icons for a user profile and settings, and a status bar showing '0 0 0'.

2. Write a program to storing elements in array and print it through user by asking size.



The screenshot displays the Visual Studio Code interface with a C program named Q2.c. The program prompts the user for the size of an array and then for each element, storing them in an array and printing them back. The terminal shows the execution of the program, where the user has entered a size of 5 and five elements: 12, 45, 31, 94, and 54.

```
1 #include <stdio.h>
2 int main()
3 {
4     int n, i;
5     printf("Input size of array :-");
6     scanf("%d", &n);
7
8     int array[n];
9     for (int i = 0; i <= n; i++)
10    {
11        printf("\nElement %d = ", i);
12        scanf("%d", &array[i]);
13    }
14    for (int i = 0; i < n; i++)
15    {
16        printf("Your Element = %d\n", array[i]);
17    }
18
19    return 0;
20 }
```

PS D:\OOPS> cd "d:\OOPS\" ; if (\$?) { gcc Q2.c -o Q2 } ; if (\$?) { .\Q2 }

Input size of array :-5

Element 0 = 12

Element 1 = 45

Element 2 = 31

Element 3 = 94

Element 4 = 54

Element 5 = 32

Your Element = 12

Your Element = 45

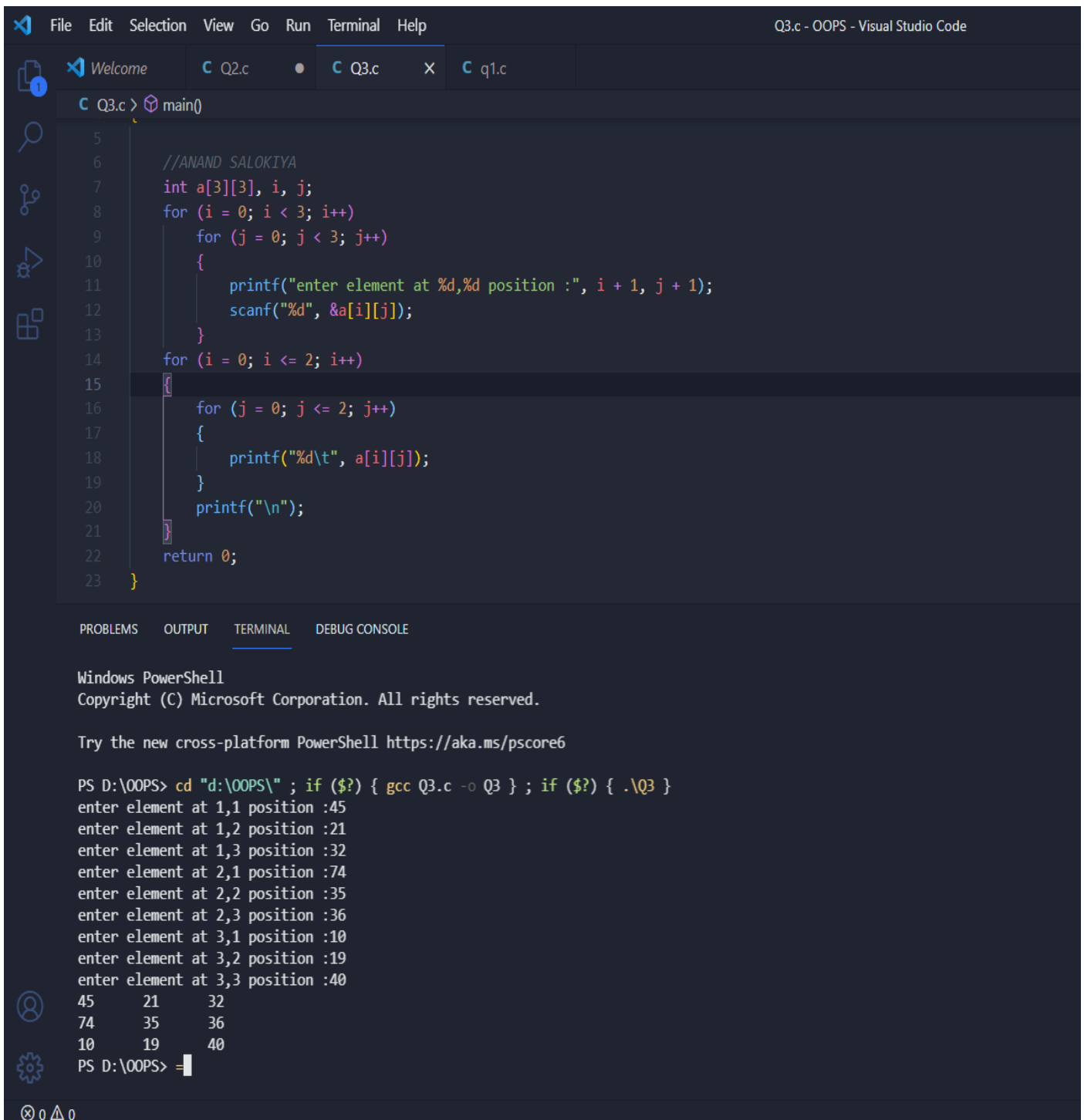
Your Element = 31

Your Element = 94

Your Element = 54

PS D:\OOPS>

3. Write a program of 2-d array and print matrix of size 3*3.



The image shows a Visual Studio Code editor with a C program in a file named Q3.c. The program is designed to take input for a 3x3 matrix and then print it. The code uses nested loops for both input and output. The output window shows the program being compiled and executed, with the resulting 3x3 matrix displayed.

```
5
6 //ANAND SALOKIYA
7 int a[3][3], i, j;
8 for (i = 0; i < 3; i++)
9     for (j = 0; j < 3; j++)
10    {
11        printf("enter element at %d,%d position :", i + 1, j + 1);
12        scanf("%d", &a[i][j]);
13    }
14 for (i = 0; i <= 2; i++)
15     {
16         for (j = 0; j <= 2; j++)
17         {
18             printf("%d\t", a[i][j]);
19         }
20         printf("\n");
21     }
22 return 0;
23 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

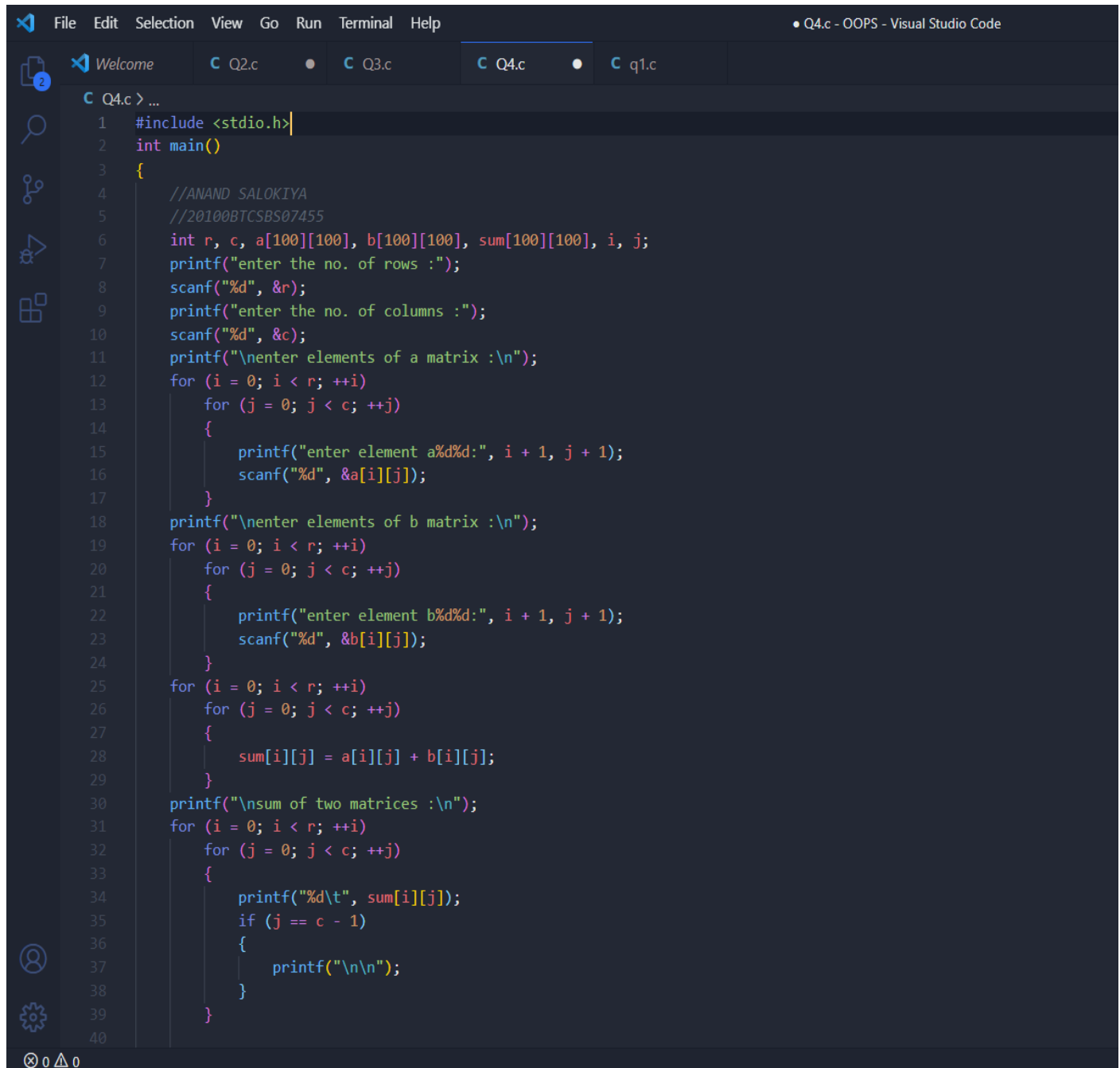
Windows PowerShell
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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

```
PS D:\OOPS> cd "d:\OOPS\" ; if ($?) { gcc Q3.c -o Q3 } ; if ($?) { .\Q3 }
enter element at 1,1 position :45
enter element at 1,2 position :21
enter element at 1,3 position :32
enter element at 2,1 position :74
enter element at 2,2 position :35
enter element at 2,3 position :36
enter element at 3,1 position :10
enter element at 3,2 position :19
enter element at 3,3 position :40
45    21    32
74    35    36
10    19    40
PS D:\OOPS> =
```

0 0 0

4. Write a program for addition of same sizes two matrix.



The image shows a Visual Studio Code editor window with a C program for adding two matrices. The editor has a dark theme and a sidebar on the left with icons for Explorer, Search, Source Control, Run and Debug, and Extensions. The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. The top right corner shows the file name 'Q4.c - OOPS - Visual Studio Code'. The editor window has a tab bar with 'Welcome', 'Q2.c', 'Q3.c', 'Q4.c', and 'q1.c'. The 'Q4.c' tab is active, showing the following code:

```
1  #include <stdio.h>
2  int main()
3  {
4      //ANAND SALOKIYA
5      //20100BTCBS07455
6      int r, c, a[100][100], b[100][100], sum[100][100], i, j;
7      printf("enter the no. of rows :");
8      scanf("%d", &r);
9      printf("enter the no. of columns :");
10     scanf("%d", &c);
11     printf("\nenter elements of a matrix :\n");
12     for (i = 0; i < r; ++i)
13         for (j = 0; j < c; ++j)
14         {
15             printf("enter element a%d%d:", i + 1, j + 1);
16             scanf("%d", &a[i][j]);
17         }
18     printf("\nenter elements of b matrix :\n");
19     for (i = 0; i < r; ++i)
20         for (j = 0; j < c; ++j)
21         {
22             printf("enter element b%d%d:", i + 1, j + 1);
23             scanf("%d", &b[i][j]);
24         }
25     for (i = 0; i < r; ++i)
26         for (j = 0; j < c; ++j)
27         {
28             sum[i][j] = a[i][j] + b[i][j];
29         }
30     printf("\nsum of two matrices :\n");
31     for (i = 0; i < r; ++i)
32         for (j = 0; j < c; ++j)
33         {
34             printf("%d\t", sum[i][j]);
35             if (j == c - 1)
36             {
37                 printf("\n\n");
38             }
39         }
40 }
```

The status bar at the bottom shows '0 0 0'.