

### QUESTION NO 1:

```
Untitled1.cpp
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int i;
6     int j;
7     for(char i='a';i<='e';i++)
8     {
9         for(char j='a';j<=i;j++)
10        {
11            cout<<j;
12        }
13        cout<<endl;
14    }
15    return 0;
16
17 }
```

```
C:\Users\asif kaleem\Docume
a
ab
abc
abcd
abcde

-----
Process exited after 0.4192 seconds with return val
Press any key to continue . . .
```

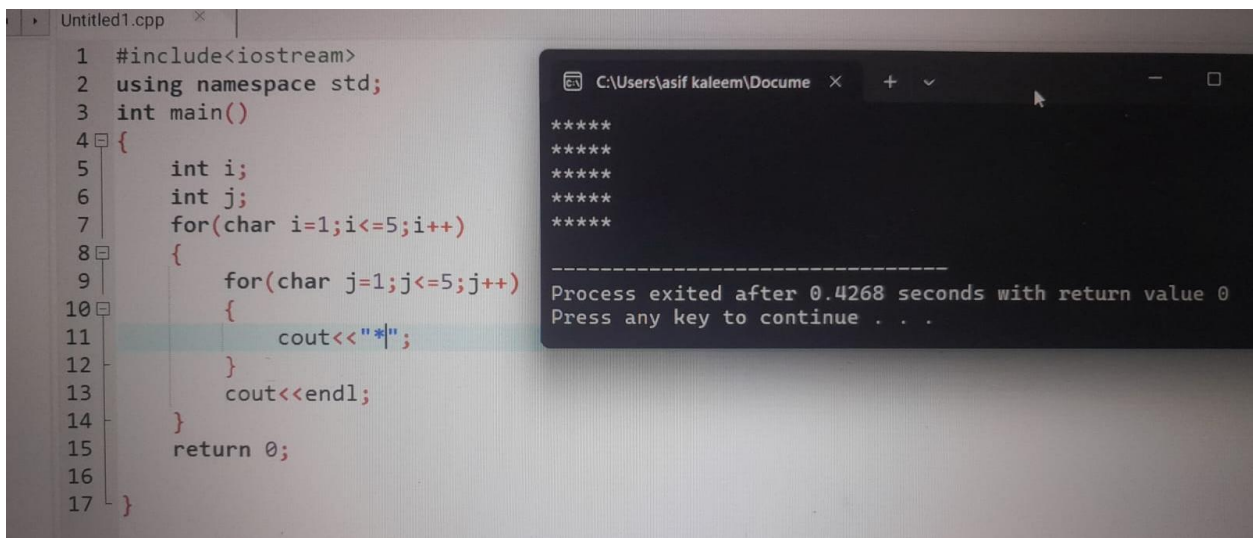
### QUESTION NO 2:

```
(globals)
TDM-GCC 9.2.0 64-bit Release
Untitled1.cpp
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int i = 5;
6
7
8     cout << "Multiplication Table from 0 to " << i << endl;
9     cout << "-----" << endl;
10
11
12     for (int i = 0; i <= 5; i++) {
13         for (int j = 0; j <= 5; j++)
14         {
15             cout << i << " x " << j << " = " << i * j << endl;
16         }
17         cout << endl;
18     }
19
20
21     return 0;
22
23 }
```

```
C:\Users\asif kaleem\Docume
Multiplication Table from 0
0 x 0 = 0
0 x 1 = 0
0 x 2 = 0
0 x 3 = 0
0 x 4 = 0
0 x 5 = 0

1 x 0 = 0
1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
```

### QUESTION NO 3:

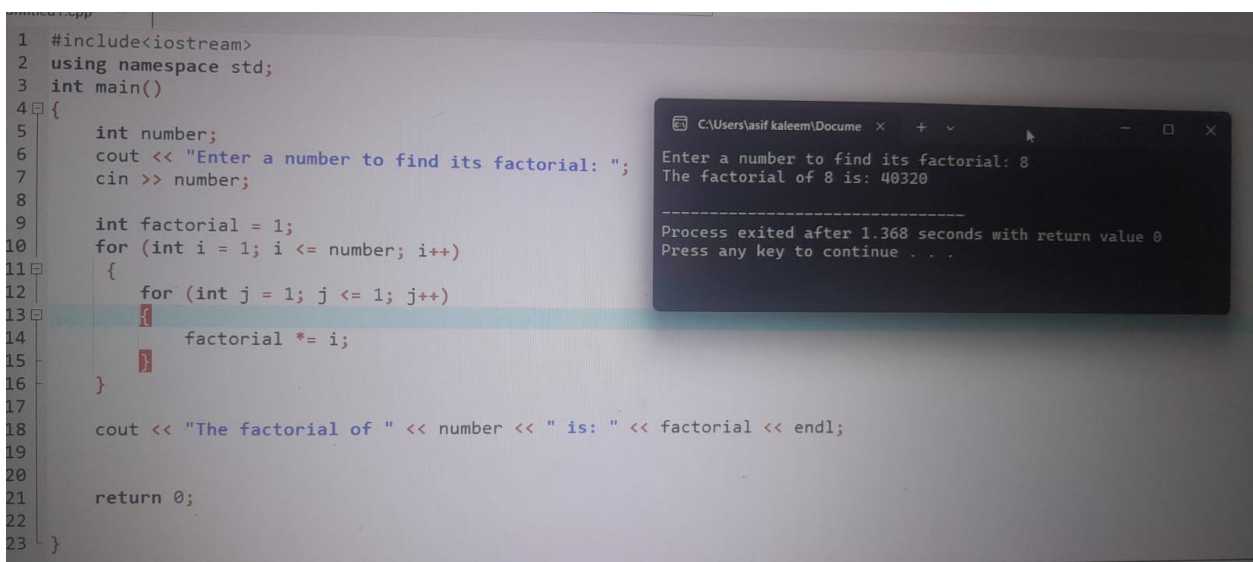


The screenshot shows a C++ program in a text editor and its execution output in a terminal window. The program is titled 'Untitled1.cpp' and contains the following code:

```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int i;
6     int j;
7     for(char i=1;i<=5;i++)
8     {
9         for(char j=1;j<=5;j++)
10        {
11            cout<<"*";
12        }
13        cout<<endl;
14    }
15    return 0;
16 }
17 }
```

The terminal window shows the output of the program, which is a 5x5 grid of asterisks. Below the grid, the terminal displays the message: "Process exited after 0.4268 seconds with return value 0 Press any key to continue . . .".

### QUESTION NO 4:



The screenshot shows a C++ program in a text editor and its execution output in a terminal window. The program is titled 'Untitled1.cpp' and contains the following code:

```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int number;
6     cout << "Enter a number to find its factorial: ";
7     cin >> number;
8
9     int factorial = 1;
10    for (int i = 1; i <= number; i++)
11    {
12        for (int j = 1; j <= 1; j++)
13        {
14            factorial *= i;
15        }
16    }
17
18    cout << "The factorial of " << number << " is: " << factorial << endl;
19
20
21    return 0;
22 }
23 }
```

The terminal window shows the output of the program. It prompts the user to "Enter a number to find its factorial: 8". The user enters 8, and the program outputs "The factorial of 8 is: 40320". Below the output, the terminal displays the message: "Process exited after 1.368 seconds with return value 0 Press any key to continue . . .".

### QUESTION NO 5:

```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int number, sum = 0;
6
7     cout << "Enter a number: ";
8     cin >> number;
9     for (int temp = number; temp > 0; temp /= 10)
10    {
11        int digit = temp % 10;
12        for (int i = 0; i < 1; i++)
13        {
14            sum += digit;
15        }
16    }
17
18    cout << "Sum of the digits: " << sum << endl;
19
20
21
22    return 0;
23
24 }
```

```
C:\Users\asif kaleem\Docume x + v - □ x
Enter a number: 123456789
Sum of the digits: 45
-----
Process exited after 9.05 seconds with return value 0
Press any key to continue . . .
```

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