

C++ ASSIGNMENT 1.3

Name:- Prasad Bhandare.

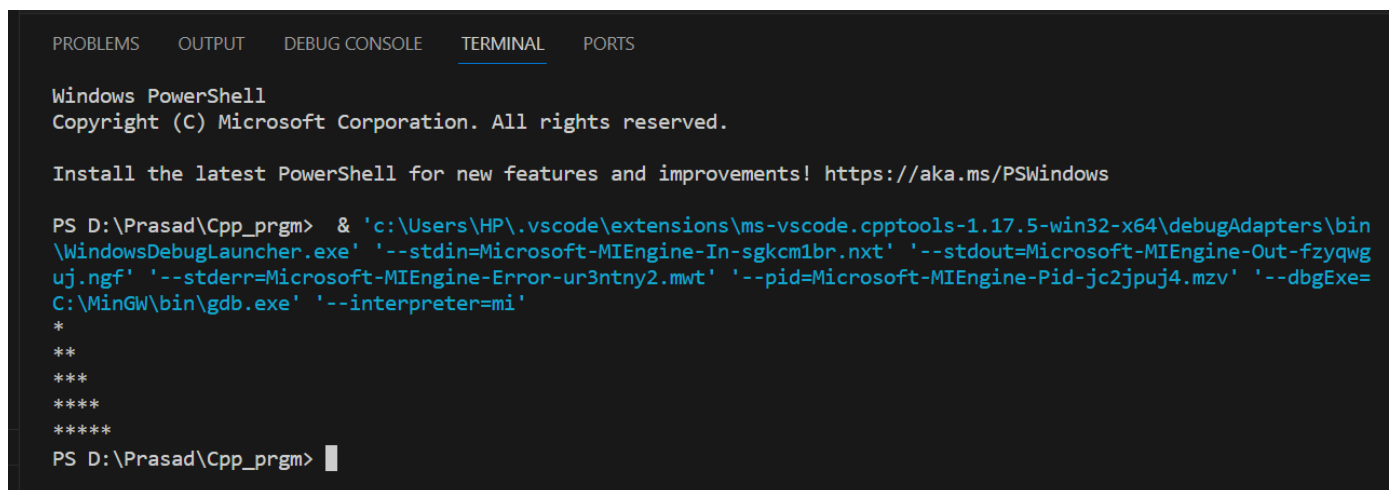
Q) WAP to print following kind of patterns:

```
1) *
   **
   ***
   ****
   *****
```

Code:--

```
#include <iostream>
using namespace std;
int main() {
    for (int i = 1; i <= 5; i++) {
        for (int j = 1; j <= i; j++) {
            cout << "*";
        }
        cout << endl;
    }
    return 0;
}
```

Output:--



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Windows PowerShell
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PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-sgkcm1br.nxt' '--stdout=Microsoft-MIEngine-Out-fzyqwguj.ngf' '--stderr=Microsoft-MIEngine-Error-ur3ntny2.mwt' '--pid=Microsoft-MIEngine-Pid-jc2jpuj4.mzv' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
*
**
***
****
*****
PS D:\Prasad\Cpp_prgm> █
```

```
2) *
   **
   ***
   ****
   *****
```

Code:--

```
#include <iostream>
using namespace std;
int main() {
    for (int i = 1; i <= 5; i++) {
```

```

for (int k = 5-i; k>0; k--)
cout<<" ";
for(int j=1;j<=i;j++)
{
cout << "*";
}
cout << endl;
}
return 0;
}

```

Output:--

```

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PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-hdaavc21.kdb' '--stdout=Microsoft-MIEngine-Out-lr232hbx.ymk' '--stderr=Microsoft-MIEngine-Error-vbma5gam.zhr' '--pid=Microsoft-MIEngine-Pid-kxm5u50o.dnt' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
*
**
***
****
*****
PS D:\Prasad\Cpp_prgm>

```

```

3)      *
        **
       ***
      ****
     *****
    3)

```

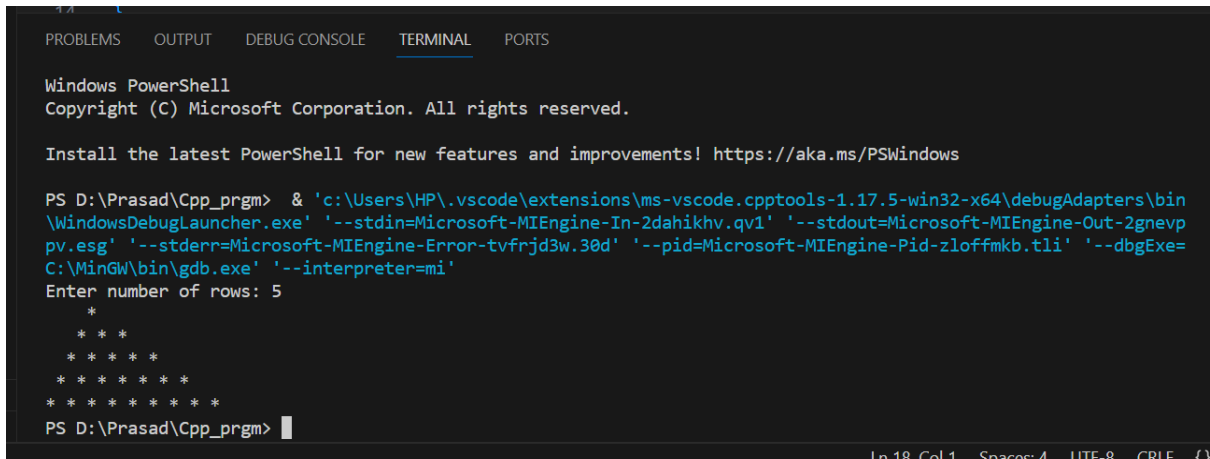
Code:--

```

#include <iostream>
using namespace std;
int main() {
int sp, row;
cout <<"Enter number of rows: ";
cin >> row;
for(int i = 1, k = 0; i <= row; ++i, k = 0) {
for(sp = 1; sp <= row-i; ++sp) {
cout <<" ";
}
while(k != 2*i-1) {
cout << "* ";
++k;
}
cout << endl;
}
return 0;}

```

Output:--



```
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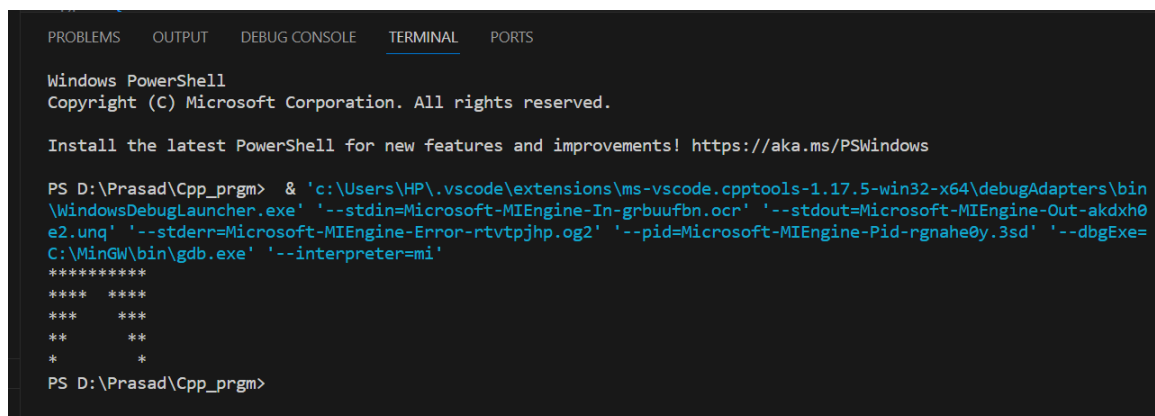
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-2dahikhv.qv1' '--stdout=Microsoft-MIEngine-Out-2gnev
pv.esg' '--stderr=Microsoft-MIEngine-Error-tvfrjd3w.30d' '--pid=Microsoft-MIEngine-Pid-zloffmkb.tli' '--dbgExe=
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter number of rows: 5
*****
****
***
**
*
PS D:\Prasad\Cpp_prgm>
```

4) *****
**** ****
*** ***
** **
* *

Code:--

```
#include <iostream>
using namespace std;
int main() {
    int rows = 5;
    for (int i = 0; i < rows; i++) {
        for (int j = 0; j < rows - i; j++) {
            cout << "*";
        }
        for (int k = 0; k < i; k++) {
            cout << " ";
        }
        for (int l = 0; l < i; l++) {
            cout << " ";
        }
        for (int m = 0; m < rows - i; m++) {
            cout << "*";
        }
        cout << endl;
    }
    return 0;
}
```

Output:--



```
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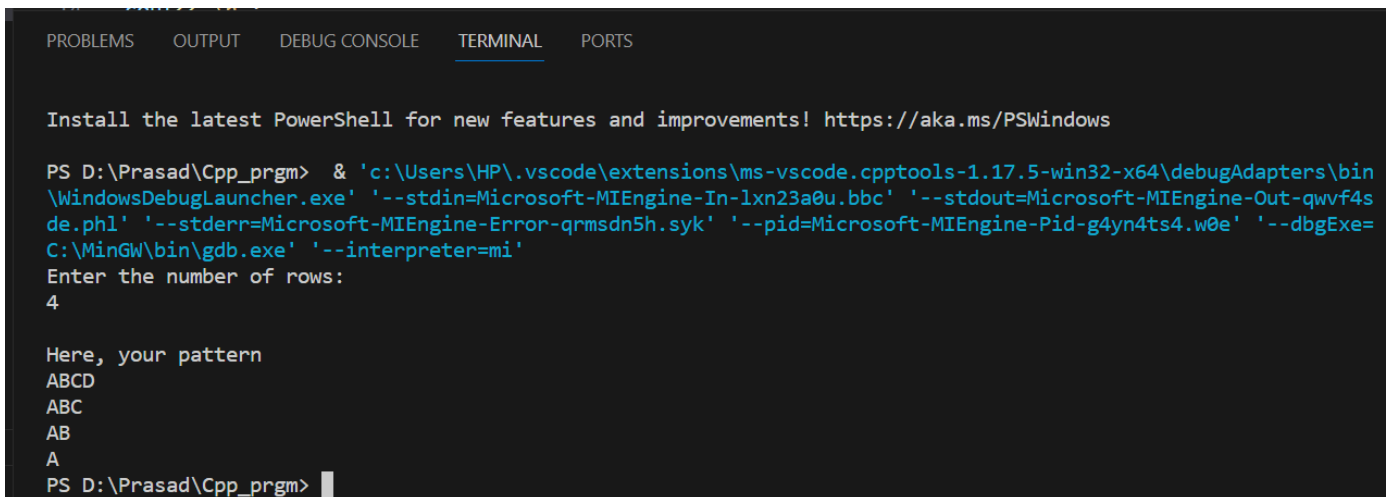
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\
\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-grbuufbn.ocn' '--stdout=Microsoft-MIEngine-Out-akdxh0
e2.unq' '--stderr=Microsoft-MIEngine-Error-rtvtpjhp.og2' '--pid=Microsoft-MIEngine-Pid-rгнаhe0y.3sd' '--dbgExe=
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
*****
****
***
**
*
PS D:\Prasad\Cpp_prgm>
```

5) ABCD
ABC
AB
A

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int i,j,rows;
    cout << "Enter the number of rows:" << endl;
    cin>>rows;
    cout<<"\n";
    cout<<"Here, your pattern\n";
    for(i=rows; i>=1; i--){
        for(j=1; j<=i; j++){
            cout<<((char)(j+64));
        }
        cout<<"\n";
    }
    return 0;
}
```

Output :--



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

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PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-lxn23a0u.bbc' '--stdout=Microsoft-MIEngine-Out-qwvf4sde.ph1' '--stderr=Microsoft-MIEngine-Error-qrmsdn5h.syk' '--pid=Microsoft-MIEngine-Pid-g4yn4ts4.w0e' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter the number of rows:
4

Here, your pattern
ABCD
ABC
AB
A
PS D:\Prasad\Cpp_prgm> █
```

6) 1
12
123
1234
12345
123456

Code:--

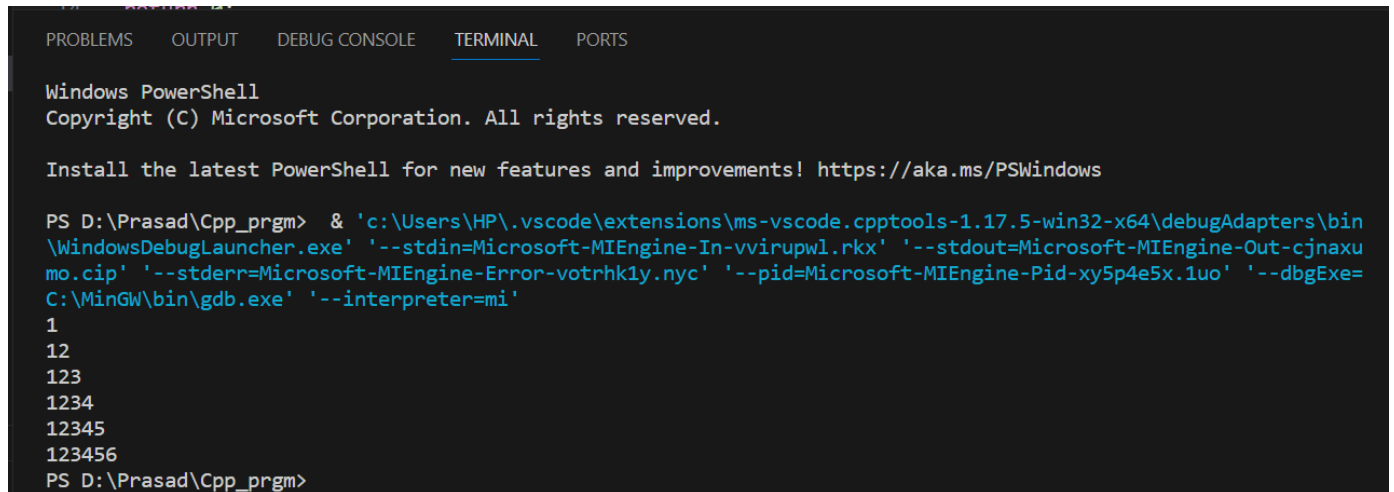
```
#include<iostream>
using namespace std;
int main()
{
    int i, j;
```

```

for(i=1; i<=6; i++)
{
for(j=1; j<=i; j++)
{
cout<<j;
}
cout<<endl;
}
return 0;
}

```

Output:--



```

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PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-vvirupwl.rkx' '--stdout=Microsoft-MIEngine-Out-cjnaxumo.cip' '--stderr=Microsoft-MIEngine-Error-votrkh1y.nyc' '--pid=Microsoft-MIEngine-Pid-xy5p4e5x.1uo' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
1
12
123
1234
12345
123456
PS D:\Prasad\Cpp_prgm>

```

7) ABCDEDCBA
 ABCD DCBA
 ABC CBA
 AB BA
 A A

Code:--

```

#include <iostream>
using namespace std;
int main()
{
int i,j;
char CH='E';
int sp=1;
for(i=1; i<=5; i++)
{
for(j='A'; j<=CH; j++)
cout<<((char)(j));
if(i==1)
cout<<"\b";
for(j=1; j<sp; j++)
cout<<" ";
for(j=CH; j>='A'; j--)
cout<<((char)(j));
cout<<endl;
CH--;
sp++;
}
return 0;
}

```

Output:--

```
in=Microsoft-MIEngine-In-xxjfanq3.1v0' '--stdout=Microsoft-MIEngine-Out-h3izqbkk.qma' '--stderr=Microsoft-MIEngine-Error-30otbo1l.wu5' '--pid=Microsoft-MIEngine-Pid-w1wkjwvf.gyz' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
ABCDEDCBA
ABCD DCBA
ABC CBA
AB BA
A A
PS D:\Prasad\Cpp_prgm>
```

