

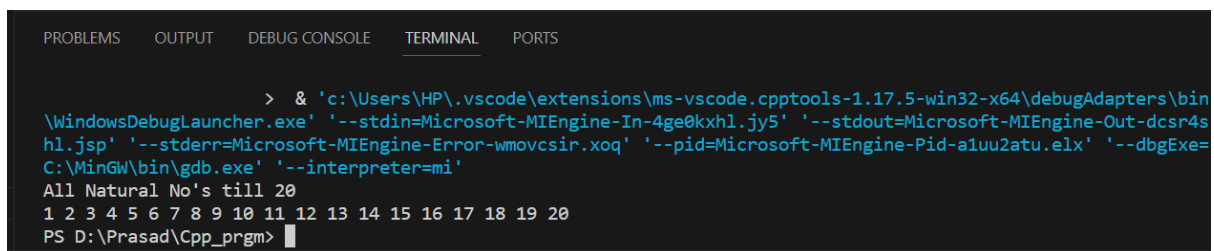
C++ ASSIGNMENT 1.2

1.WAP for printing all natural numbers till 20.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int i;
    cout << "All Natural No's till 20 " << "\n";
    for(i=1; i<=20; i++)
    {
        cout << i << " ";
    }
}
```

Output:--



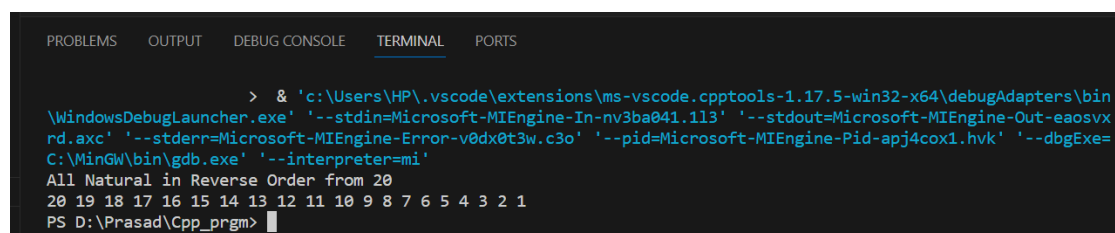
```
> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-4ge0kxhl.jy5' '--stdout=Microsoft-MIEngine-Out-dcsr4sh1.jsp' '--stderr=Microsoft-MIEngine-Error-wmovcsir.xoq' '--pid=Microsoft-MIEngine-Pid-a1uu2atu.elx' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
All Natural No's till 20
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
PS D:\Prasad\Cpp_prgm>
```

2.WAP for printing all natural numbers in reverse order starting from 20.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int i;
    cout << "All Natural in Reverse Order from 20 " << "\n";
    for(i=20; i>=1; i--)
    {
        cout << i << " ";
    }
}
```

Output:--



```
> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-nv3ba041.113' '--stdout=Microsoft-MIEngine-Out-eaosvxd.rdx' '--stderr=Microsoft-MIEngine-Error-v0dx0t3w.c3o' '--pid=Microsoft-MIEngine-Pid-apj4cox1.hvk' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
All Natural in Reverse Order from 20
20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
PS D:\Prasad\Cpp_prgm>
```

3.WAP for printing all even numbers from 1 to 20.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int i;
    cout << "All Even No till 20 " << "\n";
    for(i=1; i<=20; i++)
    {
        if((i%2)==0)
        {
            cout << i << " ";
        }
    }
}
```

Output:--



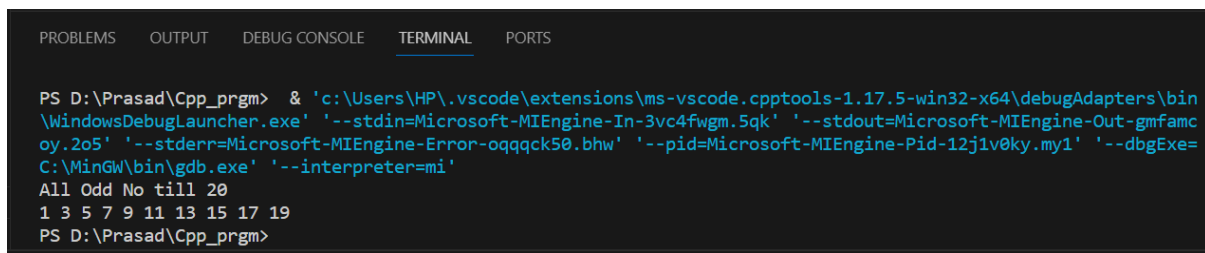
```
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-fdx1vzuf.t21' '--stdout=Microsoft-MIEngine-Out-yq54hqm4.wka' '--stderr=Microsoft-MIEngine-Error-a4orzxh5.ox0' '--pid=Microsoft-MIEngine-Pid-bflfttce.pwo' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
All Even No till 20
2 4 6 8 10 12 14 16 18 20
PS D:\Prasad\Cpp_prgm>
```

4.WAP for printing all odd numbers from 1 to 20.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int i;
    cout << "All Odd No till 20 " << "\n";
    for(i=1; i<=20; i++)
    {
        if((i%2)!=0)
        {
            cout<< i << " ";
        }
    }
}
```

Output:--



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

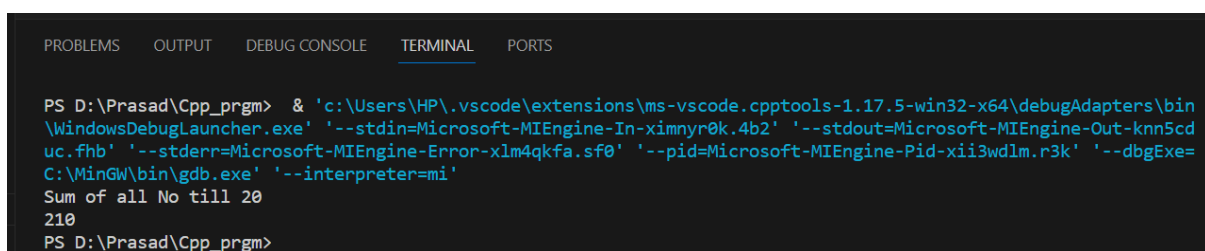
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-3vc4fwgm.5qk' '--stdout=Microsoft-MIEngine-Out-gmfamc oy.2o5' '--stderr=Microsoft-MIEngine-Error-oqqqck50.bhw' '--pid=Microsoft-MIEngine-Pid-12j1v0ky.my1' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
All Odd No till 20
1 3 5 7 9 11 13 15 17 19
PS D:\Prasad\Cpp_prgm>
```

5.WAP for adding all numbers from 1 to 20.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int i,j,x;
    x = 0;
    cout << "Sum of all No till 20 " << "\n";
    for(i=1; i<=20; i++)
    {
        x = i+x;
    }
    cout << x;
}
```

Output:--



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

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-ximn9r0k.4b2' '--stdout=Microsoft-MIEngine-Out-knn5cd uc.fhb' '--stderr=Microsoft-MIEngine-Error-xlm4qkfa.sf0' '--pid=Microsoft-MIEngine-Pid-xii3wdlm.r3k' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Sum of all No till 20
210
PS D:\Prasad\Cpp_prgm>
```

6.WAP for finding sum of all even numbers till 20.

Code:--

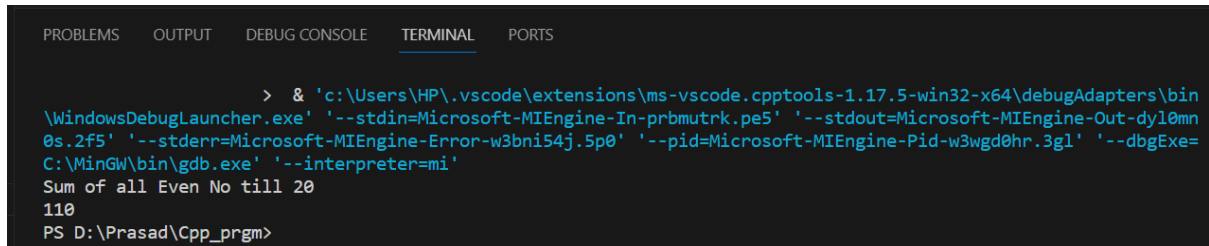
```
#include <iostream>
using namespace std;
int main()
{
    int i,x;
    x = 0;
    cout << "Sum of all Even No till 20 " << "\n";
    for(i=1; i<=20; i++)
    {
```

```

        if((i%2)==0)
        {
            x = i+x;
        }
    }
    cout << x;
}

```

Output:--



```

> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-prbmutrk.pe5' '--stdout=Microsoft-MIEngine-Out-dyl0mn0s.2f5' '--stderr=Microsoft-MIEngine-Error-w3bni54j.5p0' '--pid=Microsoft-MIEngine-Pid-w3wgd0hr.3g1' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Sum of all Even No till 20
110
PS D:\Prasad\Cpp_prgm>

```

7.WAP for finding sum of all odd numbers till 20.

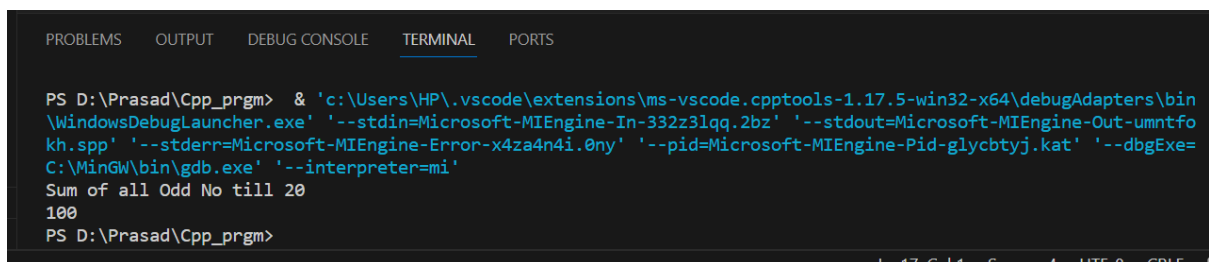
Code:--

```

#include <iostream>
using namespace std;
int main()
{
    int i,x;
    x = 0;
    cout << "Sum of all Odd No till 20 " << "\n";
    for(i=1; i<=20; i++)
    {
        if((i%2)!=0)
        {
            x = i+x;
        }
    }
    cout << x;
}

```

Output:--



```

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-332z3lqq.2bz' '--stdout=Microsoft-MIEngine-Out-umntfo kh.spp' '--stderr=Microsoft-MIEngine-Error-x4za4n4i.0ny' '--pid=Microsoft-MIEngine-Pid-glycbtyj.kat' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Sum of all Odd No till 20
100
PS D:\Prasad\Cpp_prgm>

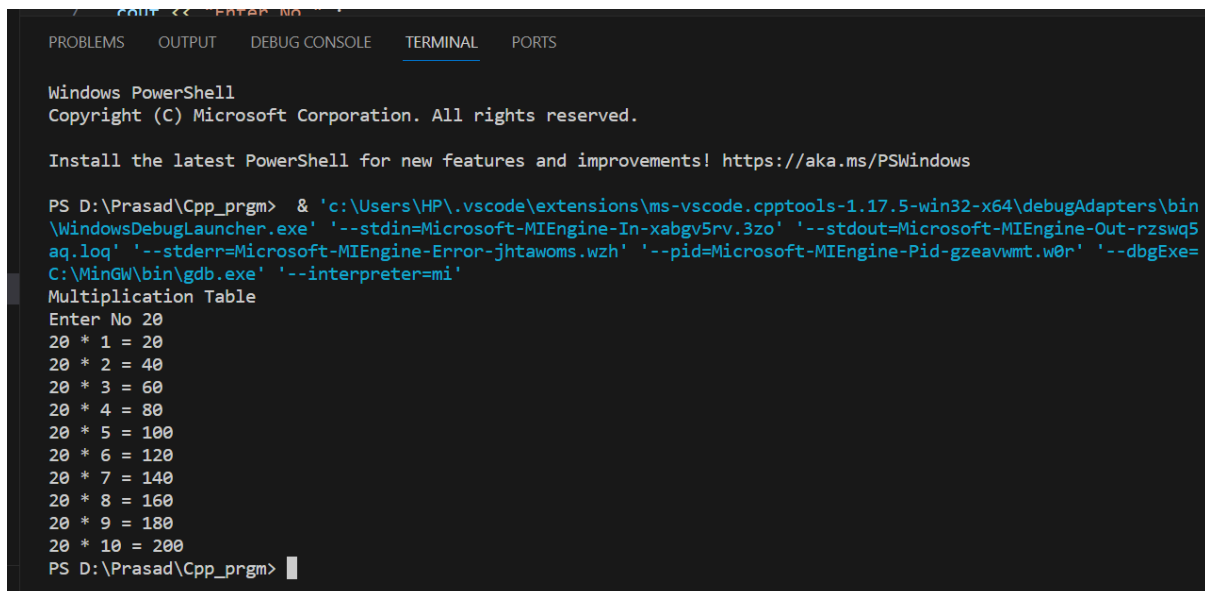
```

8.WAP for printing multiplication table of a number. For eg. Display should be “ 2 X 1 = 2”

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int x,y,i,j;
    cout <<"Multiplication Table "<<"\n";
    cout <<"Enter No " ;
    cin >> x;
    for(i=1; i<=10; i++)
    {
        y = x*i;
        cout << x <<" * " << i <<" = " << y <<"\n";
    }
}
```

Output:--



```
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-xabgv5rv.3zo' '--stdout=Microsoft-MIEngine-Out-rzswq5aq.log' '--stderr=Microsoft-MIEngine-Error-jhtawoms.wzh' '--pid=Microsoft-MIEngine-Pid-gzeavwmt.w0r' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Multiplication Table
Enter No 20
20 * 1 = 20
20 * 2 = 40
20 * 3 = 60
20 * 4 = 80
20 * 5 = 100
20 * 6 = 120
20 * 7 = 140
20 * 8 = 160
20 * 9 = 180
20 * 10 = 200
PS D:\Prasad\Cpp_prgm>
```

9.WAP to calculate factorial of a number.

Code:--

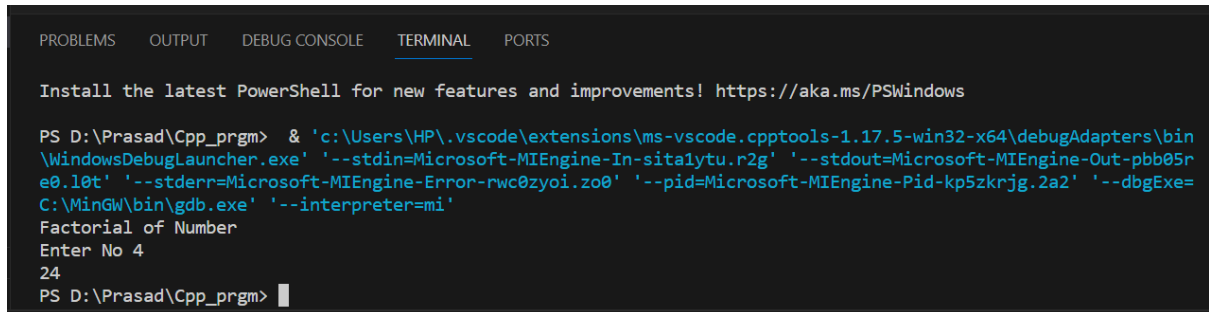
```
#include <iostream>
using namespace std;
int main()
{
    int x,y,i;
    y=1;
    cout <<"Factorial of Number "<<"\n";
    cout <<"Enter No " ;
```

```

cin >> x;
for(i=1; i<=x; i++)
{
y = i*y;
}
cout << y;
}

```

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-sitalytu.r2g' '--stdout=Microsoft-MIEngine-Out-pbb05re0.10t' '--stderr=Microsoft-MIEngine-Error-rwc0zyoi.zo0' '--pid=Microsoft-MIEngine-Pid-kp5zkrjg.2a2' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Factorial of Number
Enter No 4
24
PS D:\Prasad\Cpp_prgm>

```

10.WAP to check whether a number is prime or not.

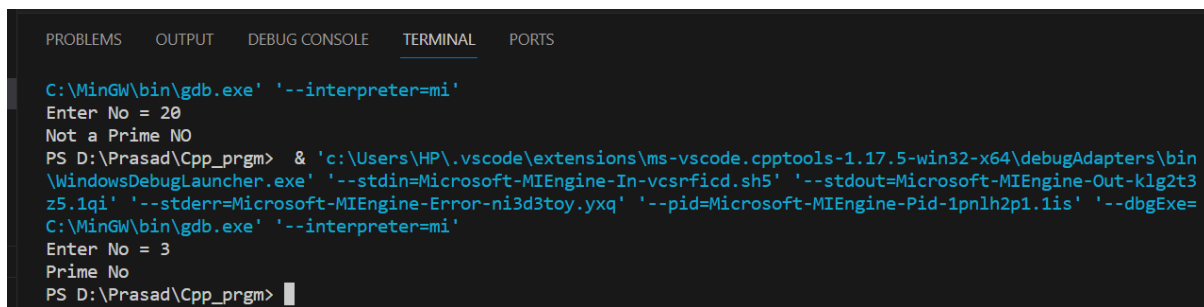
Code:--

```

#include <iostream>
using namespace std;
int main()
{
int x,i,flag;
cout << "Enter No = " ;
cin >> x;
for(i=2;i<x;i++)
{
if((x%i)==0)
{
flag = 1;
break;
}
else
flag = 0;
}
if(flag==1)
cout << "Not a Prime NO";
else
if(flag==0)
cout << "Prime No";
}

```

Output:--



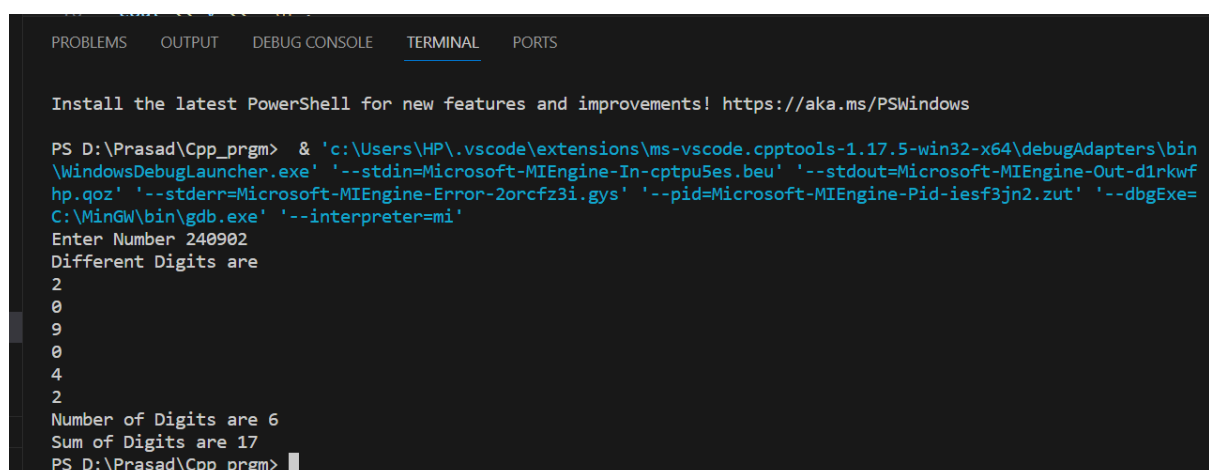
```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter No = 20
Not a Prime NO
PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-vcsrfcd.sh5' '--stdout=Microsoft-MIEngine-Out-klg2t3z5.1qi' '--stderr=Microsoft-MIEngine-Error-ni3d3toy.yxq' '--pid=Microsoft-MIEngine-Pid-1pnlh2p1.1is' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter No = 3
Prime No
PS D:\Prasad\Cpp_prgm>
```

11.WAP to print all digits of a number and their sum.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int x,y,z;
    z = 0;
    cout << "Enter Number ";
    cin >> x;
    cout << "Different Digits are " << "\n";
    int i = 0;
    while(x>0)
    {
        y = x%10;
        x = x/10;
        z = z+y;
        cout << y << "\n";
        i++;
    }
    cout << "Number of Digits are " << i;
    cout << "\n" << "Sum of Digits are " << z << "\n";
}
```

Output:--



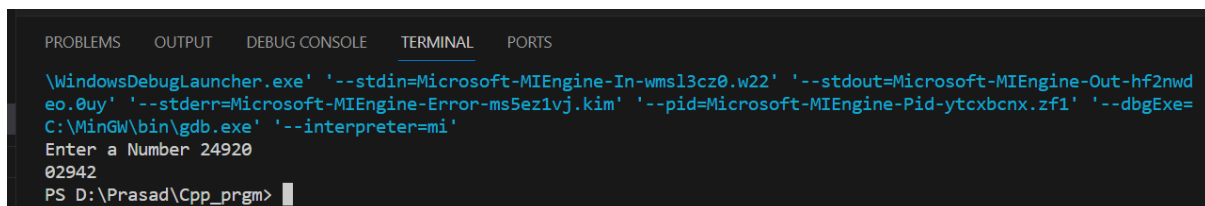
```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
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PS D:\Prasad\Cpp_prgm> & 'c:\Users\HP\.vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-cptpu5es.beu' '--stdout=Microsoft-MIEngine-Out-dlrkwhp.qoz' '--stderr=Microsoft-MIEngine-Error-2orcfz3i.gys' '--pid=Microsoft-MIEngine-Pid-iesf3jn2.zut' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number 240902
Different Digits are
2
4
0
9
0
2
Number of Digits are 6
Sum of Digits are 17
PS D:\Prasad\Cpp_prgm>
```

12.WAP to print reverse of a number.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int x,y;
    cout <<"Enter a Number ";
    cin >> x;
    while(x>0)
    {
        y = x%10;
        x = x/10;
        cout << y ;
    }
}
```

Output:--



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
\\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-wmsl3cz0.w22' '--stdout=Microsoft-MIEngine-Out-hf2nwd
eo.0uy' '--stderr=Microsoft-MIEngine-Error-ms5ezlvj.kim' '--pid=Microsoft-MIEngine-Pid-ytcxbcnx.zf1' '--dbgExe=
C:\\MinGW\\bin\\gdb.exe' '--interpreter=mi'
Enter a Number 24920
02942
PS D:\\Prasad\\Cpp_prgm>
```

13.WAP to check whether the number is Armstrong or not.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int x,y,z,a;
    z = 0;
    cout <<"Enter a Number ";
    cin >> x;
    a = x;
    int i = 0;
    while(x>0)
    {
        y = x%10;

        x = x/10;
        z = z+(y*y*y);
    }
    if(a==z)
```

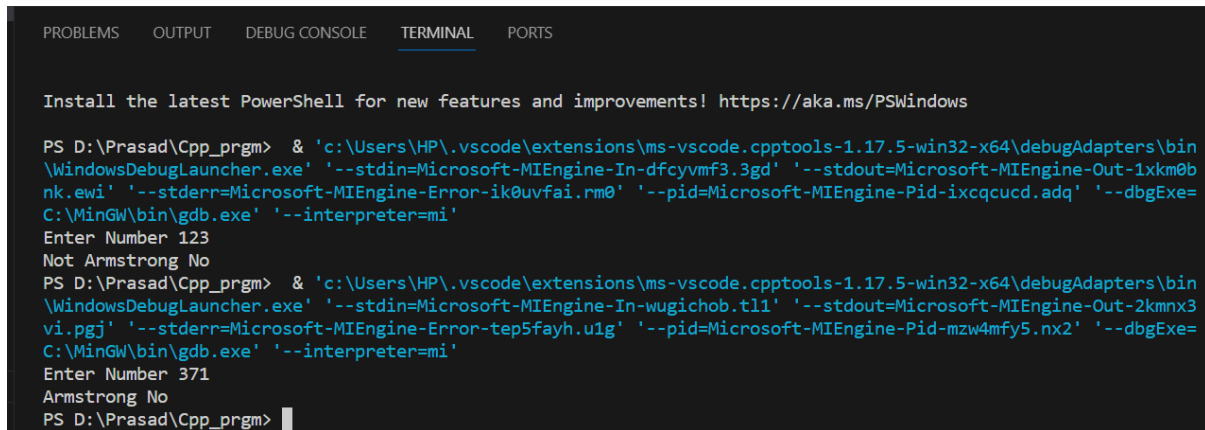


```

cout << "Given No is a Armstrong No";
else
cout << "Given No is Not a Armstrong No";
}

```

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-dfcyvmf3.3gd' '--stdout=Microsoft-MIEngine-Out-1xkm0bnk.ewi' '--stderr=Microsoft-MIEngine-Error-ik0uvfai.rm0' '--pid=Microsoft-MIEngine-Pid-ixqcucd.adq' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number 123
Not Armstrong No
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-wugichob.tl1' '--stdout=Microsoft-MIEngine-Out-2kmnx3vi.pgj' '--stderr=Microsoft-MIEngine-Error-tep5fayh.u1g' '--pid=Microsoft-MIEngine-Pid-mzw4mfy5.nx2' '--dbgExe=C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter Number 371
Armstrong No
PS D:\Prasad\Cpp_prgm>

```

14.WAP to print the Fibonacci series in a given range.

Code:--

```

#include <iostream>
using namespace std;
int main()
{
int x,y,z,i;
int a,b,c;
a = 0;
b = 1;
z = 0;
cout << "Write a Fibonacci Series for first n number = ";
cin >> x;
i=1;
cout<<" "<< a<<" "<< b;
while(i<=x)
{
c= b+a;
a = b;
b = c;
cout<<" "<< c <<" ";i++;
}
}

```

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-hfd0uw4t.cjb' '--stdout=Microsoft-MIEngine-Out-buv53
1m.oas' '--stderr=Microsoft-MIEngine-Error-45mtr4s1.1gc' '--pid=Microsoft-MIEngine-Pid-vtyqioto.2at' '--dbgExe=
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Write a Fibonacci Series for first n number = 9
0 1 1 2 3 5 8 13 21 34 55
PS D:\Prasad\Cpp_prgm> █
```

15.WAP to check whether the number entered is palindrome or not.

Code:--

```
#include <iostream>
using namespace std;
int main()
{
    int x,y,z;
    z=0;
    cout <<"Enter a Number ";
    cin >> x;
    int a = x;
    while(x>0)
    {
        y = x%10;
        x = x/10;
        z = (z*10)+y;
    }
    if(a==z)
        cout << "Given Number is a Palindrome Number";
    else
        cout << "Given Number is Not a Palindrome Number";
}
```

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-iisi23w0.4uv' '--stdout=Microsoft-MIEngine-Out-t3x3l2
ln.jas' '--stderr=Microsoft-MIEngine-Error-zpfbbrrpc.om1' '--pid=Microsoft-MIEngine-Pid-tqen3o1i.icn' '--dbgExe=
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter a Number 240902
Given Number is Not a Palindrome Number
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-bwywpsts.pwx' '--stdout=Microsoft-MIEngine-Out-500bhy
5u.a0e' '--stderr=Microsoft-MIEngine-Error-fememvcf.vj4' '--pid=Microsoft-MIEngine-Pid-iz3pky5t.u1g' '--dbgExe=
C:\MinGW\bin\gdb.exe' '--interpreter=mi'
Enter a Number 23432
Given Number is a Palindrome Number
PS D:\Prasad\Cpp_prgm> █
```

