

ATIVIDADE PRÁTICA SUPERVISIONADA

Curso: Sistemas de Informação	Ano: 2019
Disciplina: Estrutura de Dados I	Semestre / Período: 1º sem. / 3º período
Docente Responsável: Jean Marcelo Barbosa Cordeiro dos Santos	C.H.: 2 horas
Aluno responsável: Renan Michel Barbosa Rodrigues	

Objetivo(s): Exercício prático para elaboração de aplicação que utilize a estrutura de dados PILHA.

Criar aplicação (C++) que utilize a estrutura de dados PILHA desenvolvida em sala de aula para atender a seguinte demanda:

A aplicação deve permitir a leitura de palavras informadas pelo usuário e exibir o texto formato com a exibição de todas as palavras a cada nova inserção.

Exemplo:

Palavra inserida: HOJE

Resultado: HOJE _ (Todo o texto anterior é apagado da tela [Deve-se utilizar o comando `system("cls")`] e a palavra inserida é exibida.)

Cursor espera nova palavra: HOJE

Palavra inserida: ESTAMOS

Resultado: HOJE ESTAMOS

Palavra inserida: ESTUDANDO

Resultado: HOJE ESTAMOS ESTUDANDO

Palavra inserida: PILHA

Resultado: HOJE ESTAMOS ESTUDANDO PILHA

Deve-se disponibilizar a opção de **DESFAZER** a cada nova solicitação. A ação especificada deve permitir a remoção a última palavra inserida e exibir o texto atualizado. (Exibir menu para disponibilizar a opção "DESFAZER")

Prazo: 08/05/2019	Instruções envio: Envio de único arquivo em formato PDF utilizando a plataforma ParticipandoPraValer. Acesse o menu <i>Atividades</i> no endereço www.participandopravaler.com e envie a APS identificada com o título: "APS4 – Exercício prático Pilha"
--------------------------	---

Resposta:

```
#include <iostream>
#include <string>
#include <locale>
#include "pilha.h"

using namespace std;

void main()
{
    setlocale(LC_ALL, "Portuguese");
    bool sair = false;
    int i = 0, escolha = 0;
    string palavra;
    Pilha* p1 = cria();

    cin >> palavra;
    push(p1, palavra);
    system("cls");

    while (sair != true)
    {
        //printa tudo o que foi inserido
        for (i = 0; i < p1->topo; i++)
        {
            cout << p1->vetor[i] << " ";
        }

        //menu
        cout << endl;
        cout << "Desfazer?" << endl;
        cout << "1 - Sim" << endl;
        cout << "2 - Não" << endl;
        cout << "3 - Sair" << endl;
        cin >> escolha;
        system("cls");

        //switch para o menu
        switch (escolha)
        {
            case 1:
                //se não for vazia, desempilhar
                if (!vazia(p1))
                    pop(p1);
                else
                {
                    cout << "Pilha Vazia, não é possível desfazer." << endl;
                    system("pause>null");
                }
                break;
        }
    }
}
```

```

case 2:
    //ler o valor e inserir na pilha
    for (i = 0; i < p1->topo; i++)
        cout << p1->vetor[i] << " ";

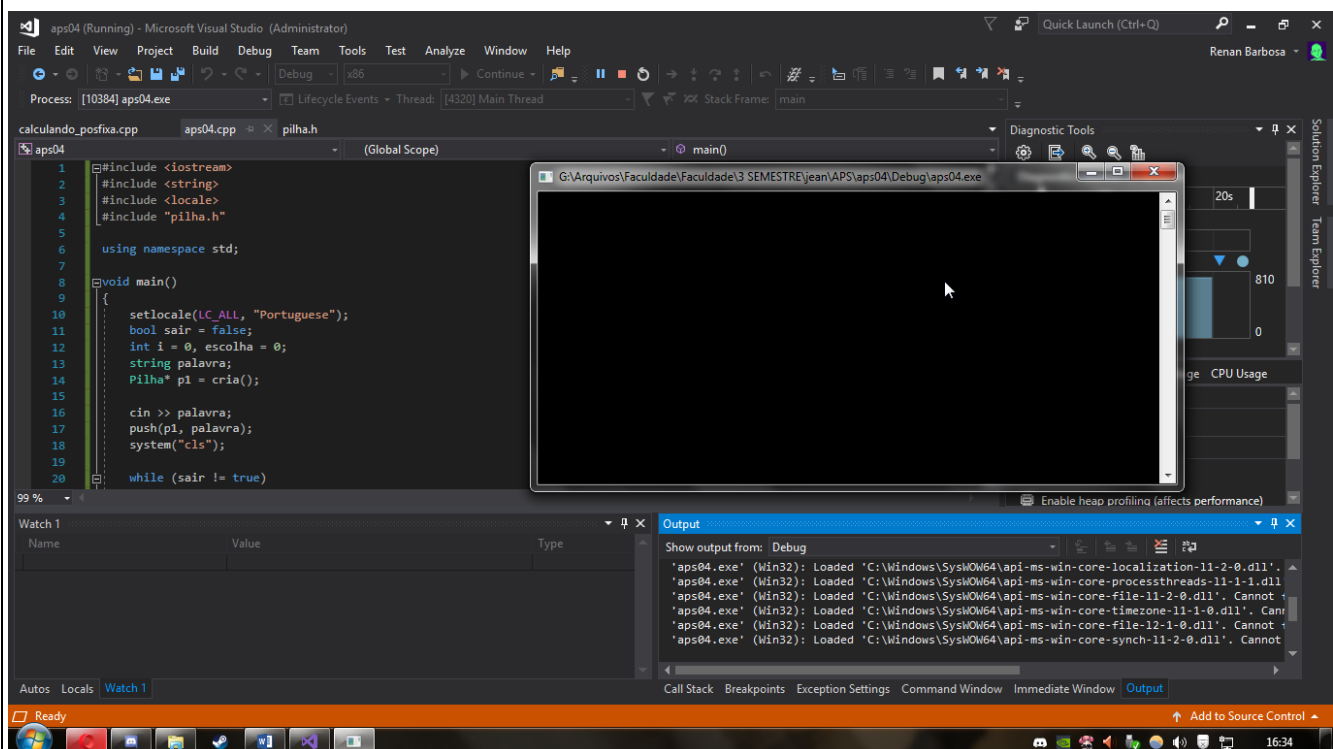
    cin >> palavra;
    push(p1, palavra);
    break;
case 3:
    //boolean vira true e sai do programa
    sair = true;
    break;
default:
    //caso não digite 1, 2 ou 3 ele dá uma mensagem de erro e volta para o menu
    cout << "Somente 1, 2 ou 3" << endl;
    system("pause");
    system("cls");
    break;
}

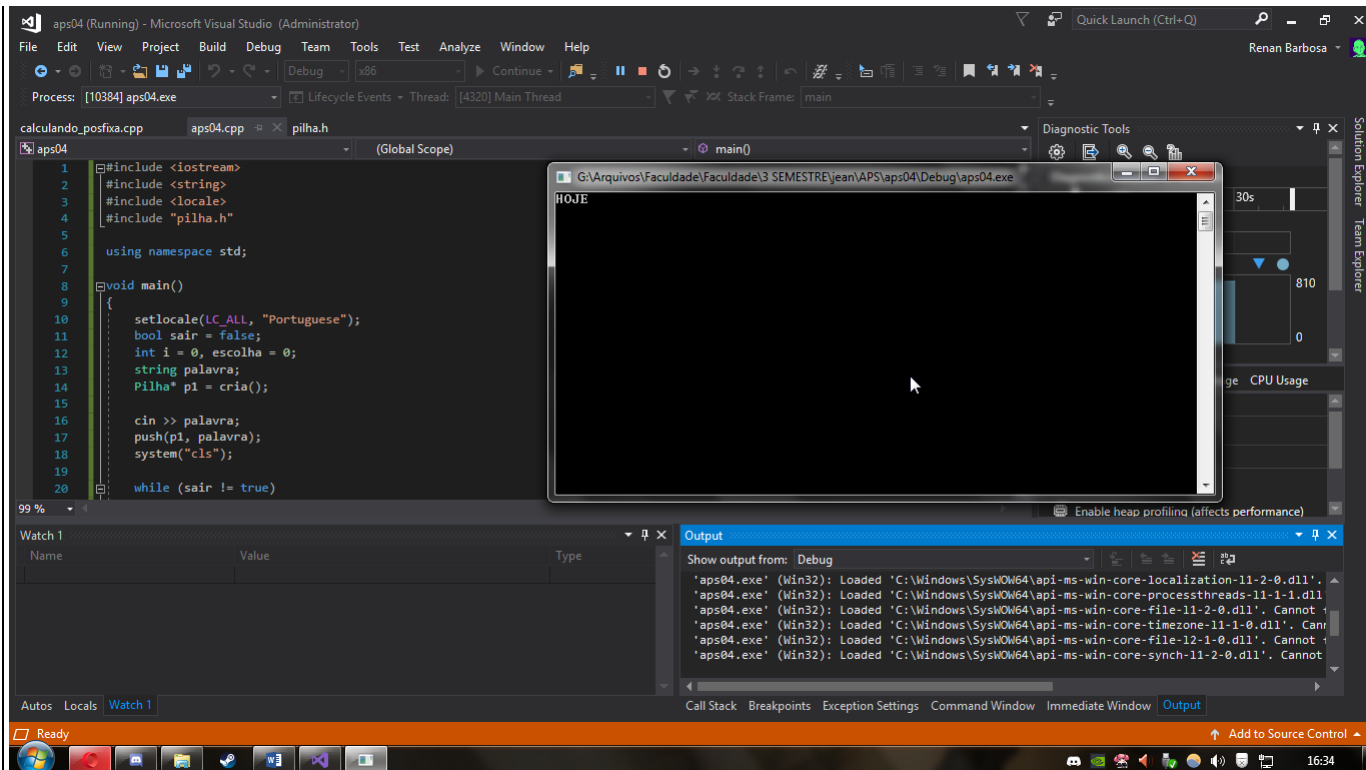
system("cls");
}

liberar(p1);

system("pause>null");
}

```





aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)

```

Watch 1

Name	Value	Type

Output

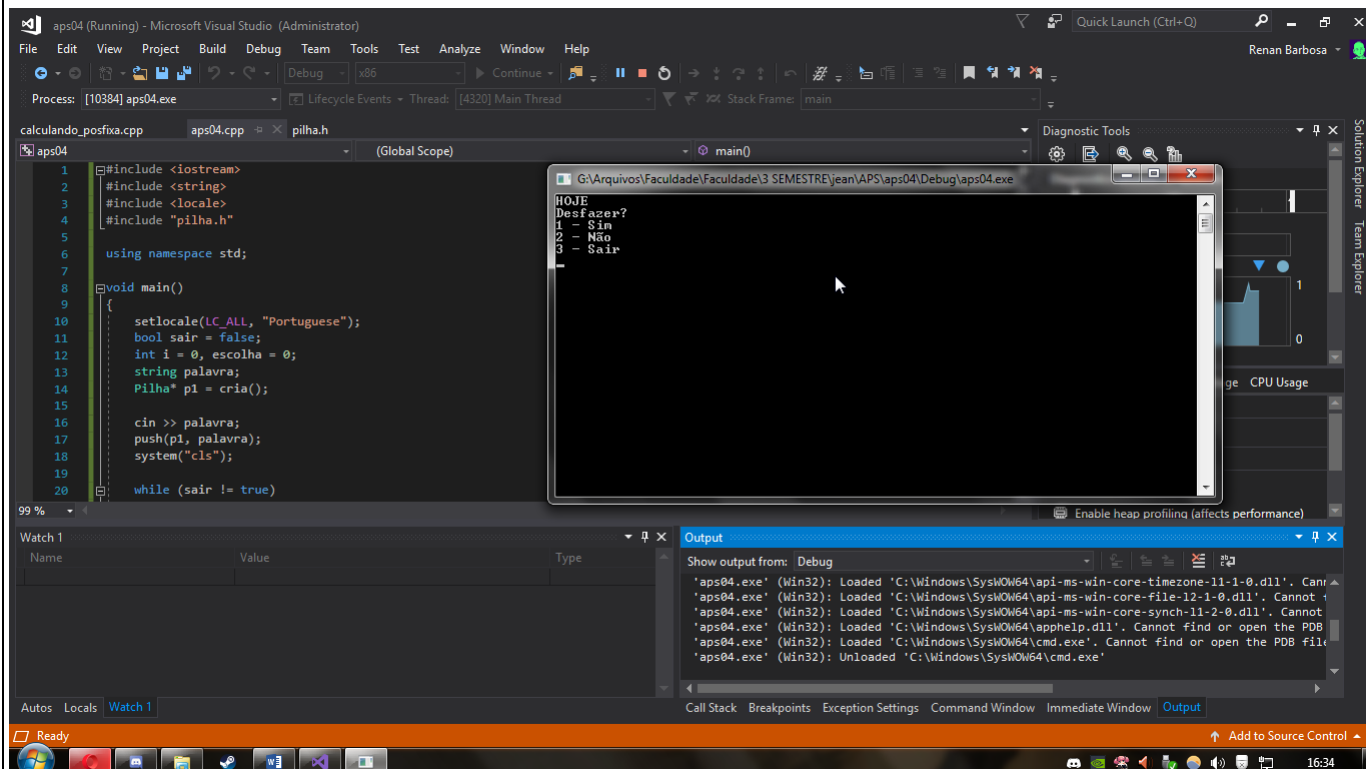
Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-localization-l1-2-0.dll'.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-processthreads-l1-1-1.dll'.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-file-l1-2-0.dll'. Cannot
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-timezone-l1-1-0.dll'. Canr
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-file-l2-1-0.dll'. Cannot
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot

```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)

```

Watch 1

Name	Value	Type

Output

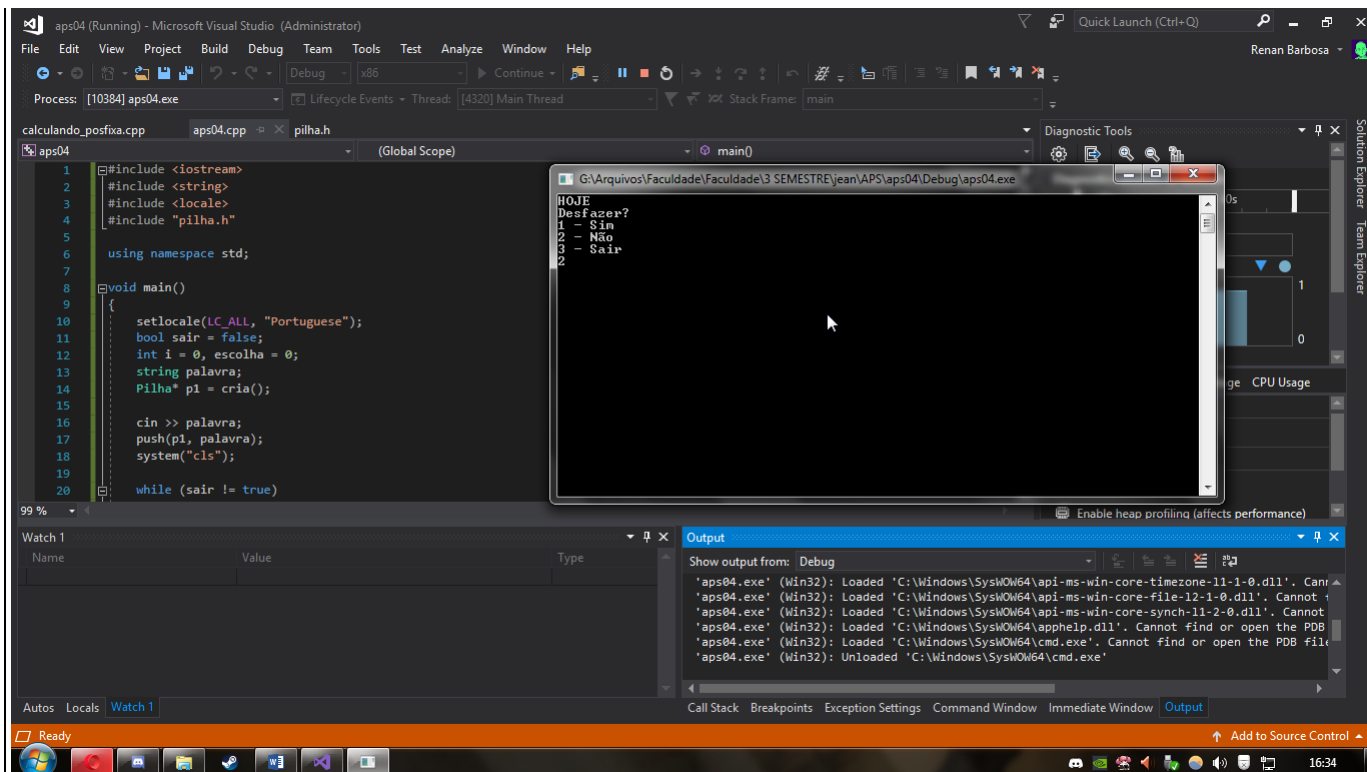
Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-timezone-l1-1-0.dll'. Canr
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-file-l2-1-0.dll'. Cannot
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot

```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)

```

Watch 1

Name	Value	Type

Output

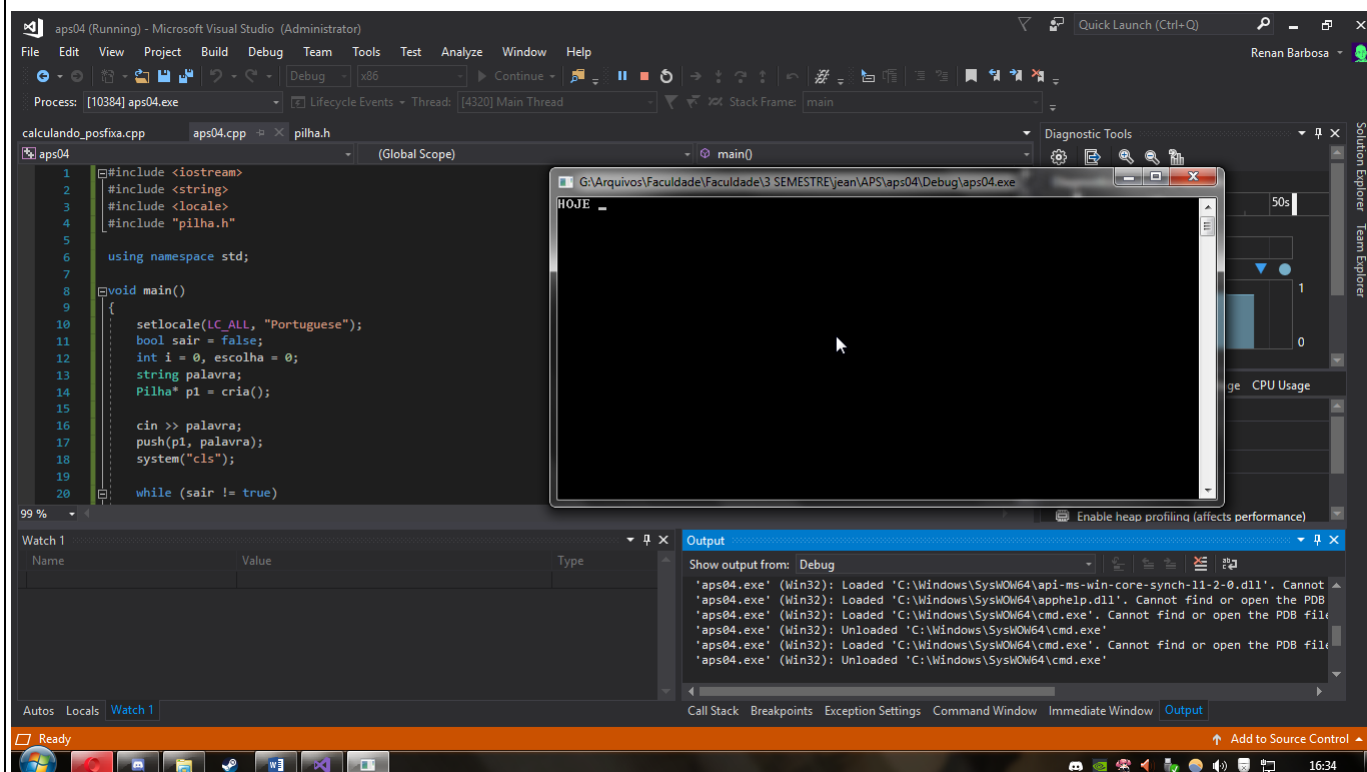
Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-timezone-l1-1-0.dll'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-file-l2-1-0.dll'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\apphelp.dll'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'

```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)

```

Watch 1

Name	Value	Type

Output

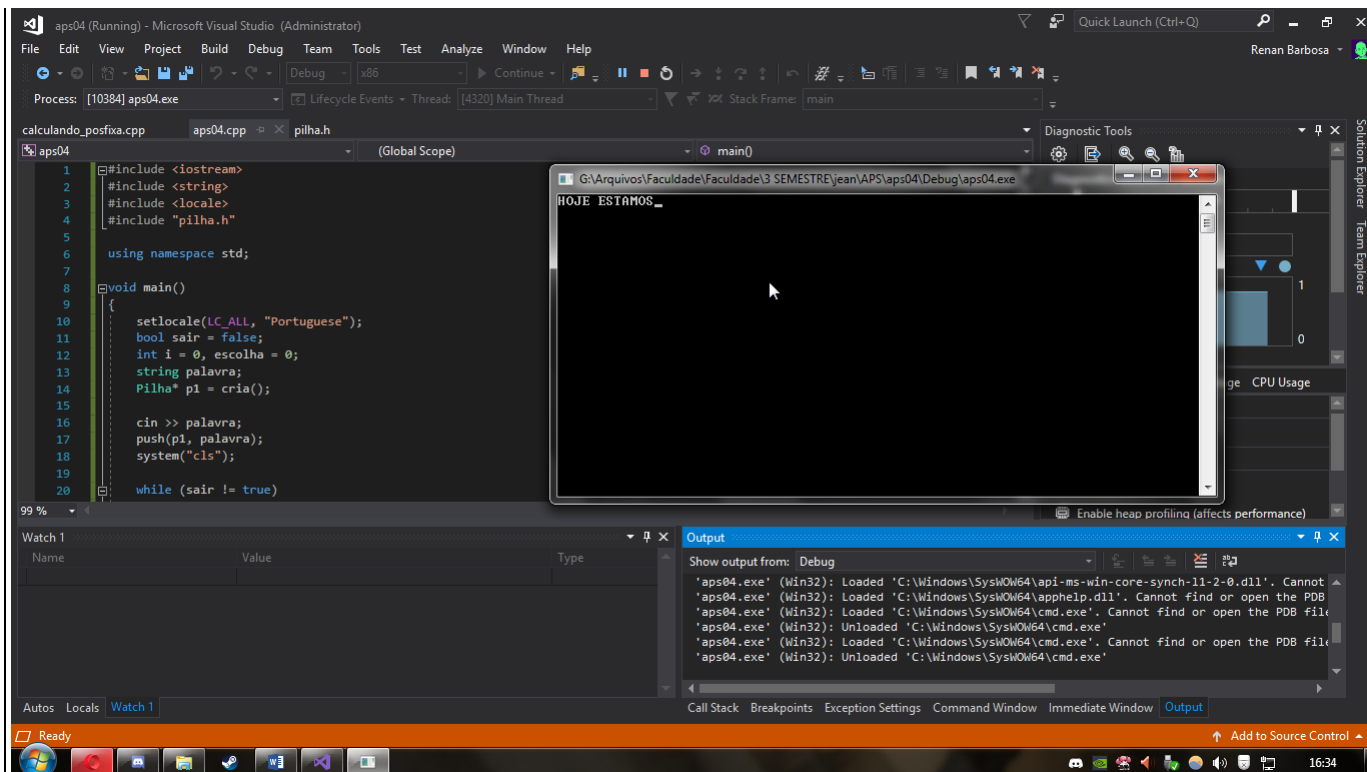
Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\apphelp.dll'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'

```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)
    
```

Watch 1

Name	Value	Type

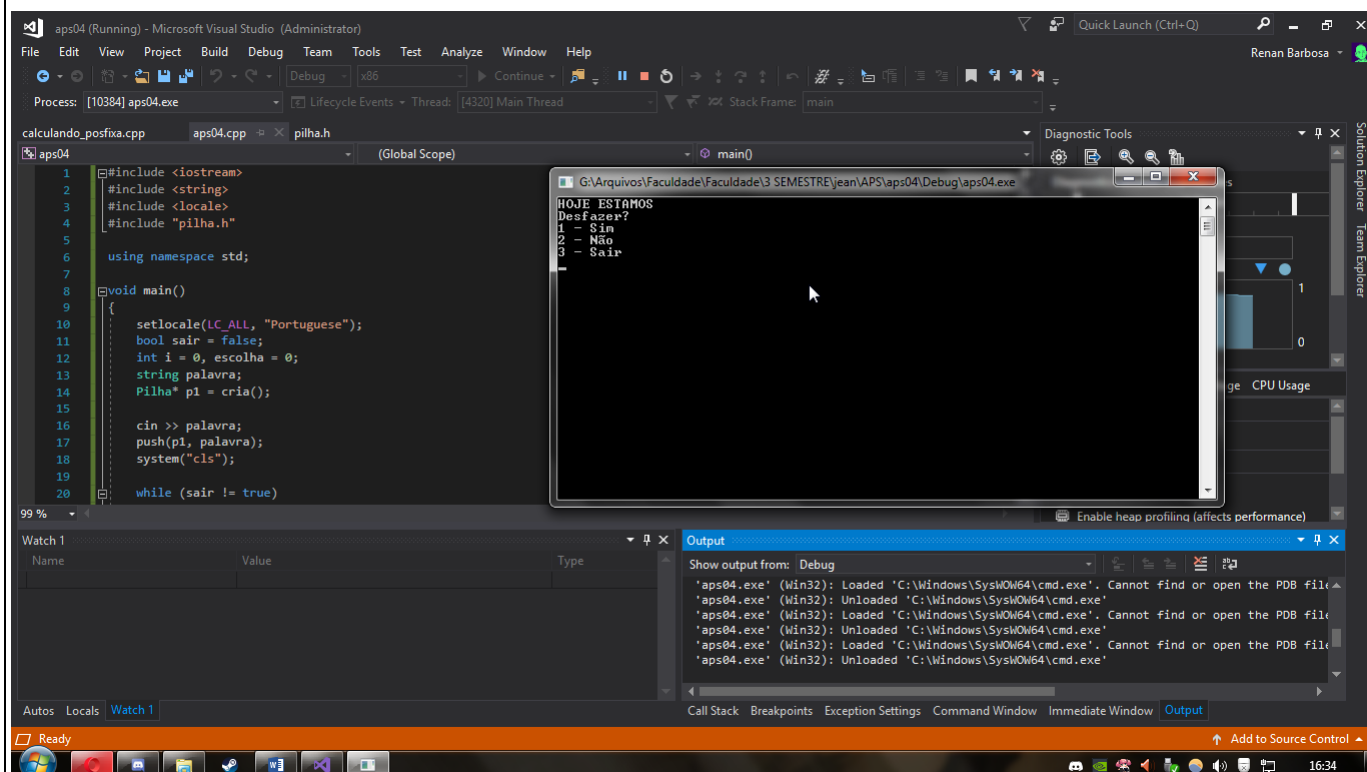
Output

Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\api-ms-win-core-synch-l1-2-0.dll'. Cannot
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\apphelp.dll'. Cannot find or open the PDB fil
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB fil
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB fil
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
    
```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)
    
```

Watch 1

Name	Value	Type

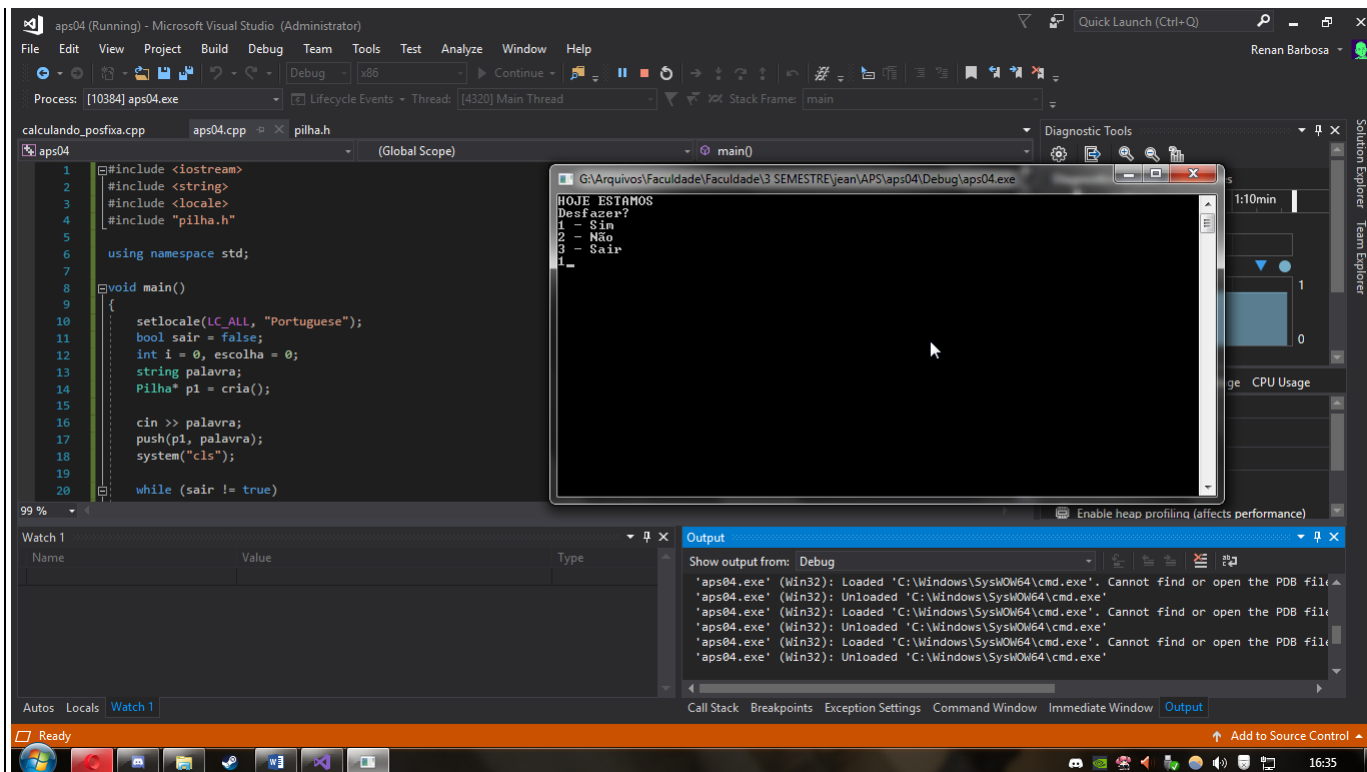
Output

Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB fil
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB fil
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB fil
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
    
```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)

```

Watch 1

Name	Value	Type

Output

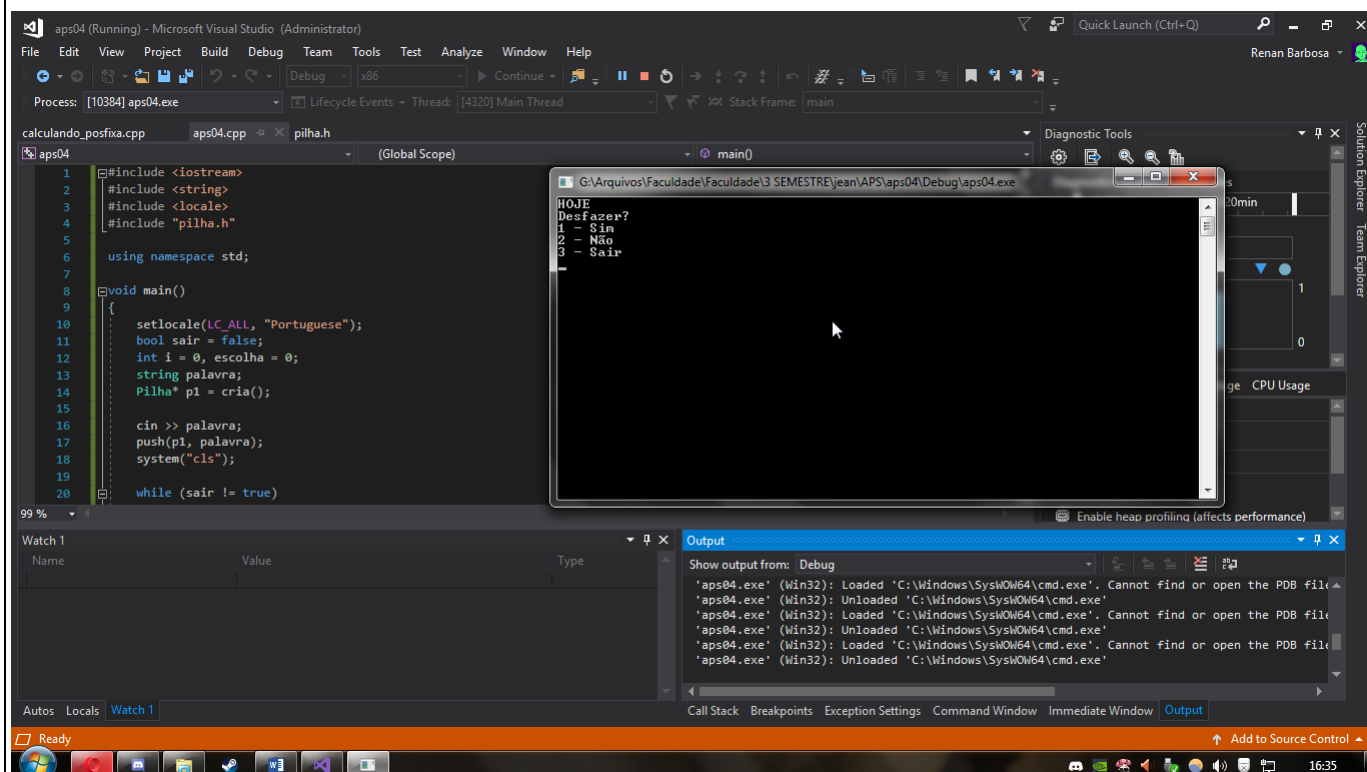
Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'

```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)

```

Watch 1

Name	Value	Type

Output

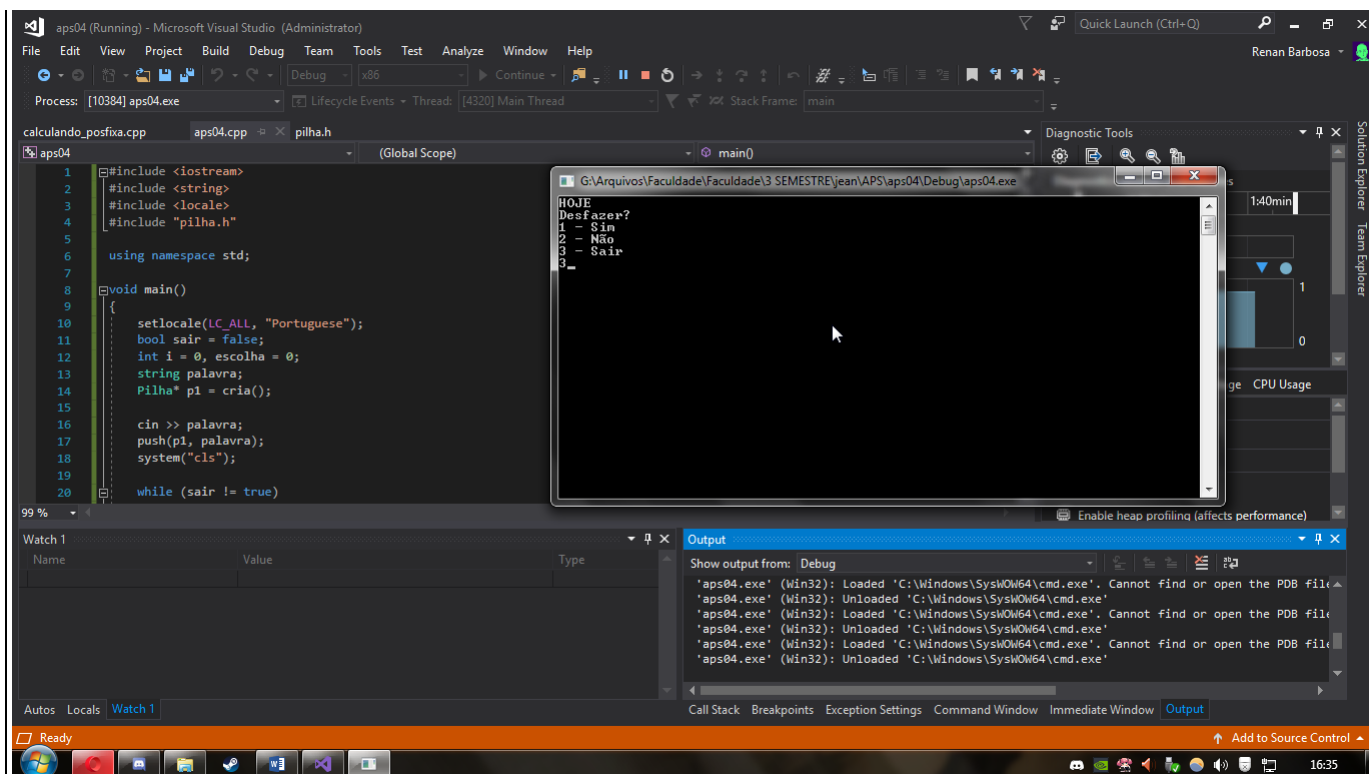
Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'

```

Ready | Add to Source Control



aps04 (Running) - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)

```

Watch 1

Name	Value	Type

Output

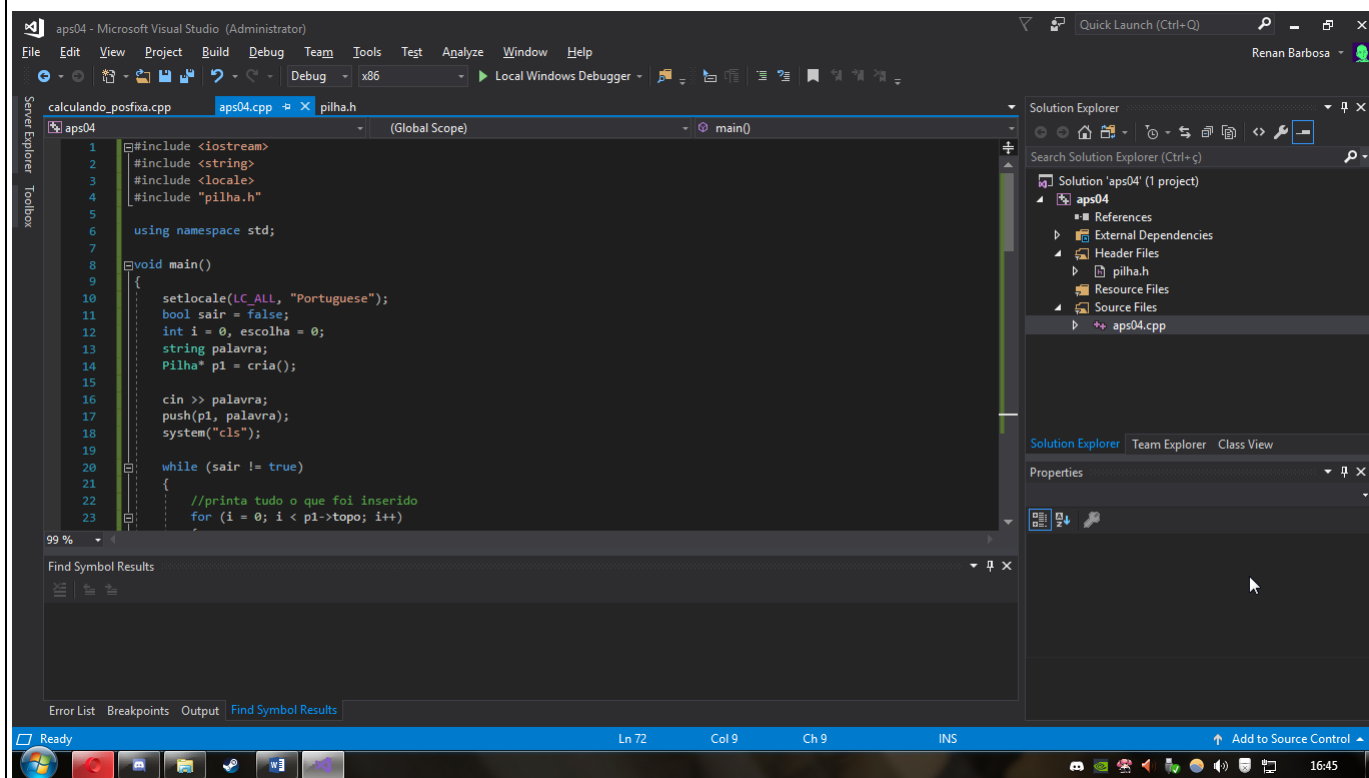
Show output from: Debug

```

'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'
'aps04.exe' (Win32): Loaded 'C:\Windows\System64\cmd.exe'. Cannot find or open the PDB file.
'aps04.exe' (Win32): Unloaded 'C:\Windows\System64\cmd.exe'

```

Ready | Add to Source Control



aps04 - Microsoft Visual Studio (Administrator)

Process: [10384] aps04.exe | Lifecycle Events | Thread: [4320] Main Thread | Stack Frame: main

calculando_posfixa.cpp | aps04.cpp | pilha.h | (Global Scope) | main()

```

1 #include <iostream>
2 #include <string>
3 #include <locale>
4 #include "pilha.h"
5
6 using namespace std;
7
8 void main()
9 {
10     setlocale(LC_ALL, "Portuguese");
11     bool sair = false;
12     int i = 0, escolha = 0;
13     string palavra;
14     Pilha* p1 = cria();
15
16     cin >> palavra;
17     push(p1, palavra);
18     system("cls");
19
20     while (sair != true)
21     {
22         //printa tudo o que foi inserido
23         for (i = 0; i < p1->topo; i++)

```

Find Symbol Results

Ready | Add to Source Control