

TP MOD 7

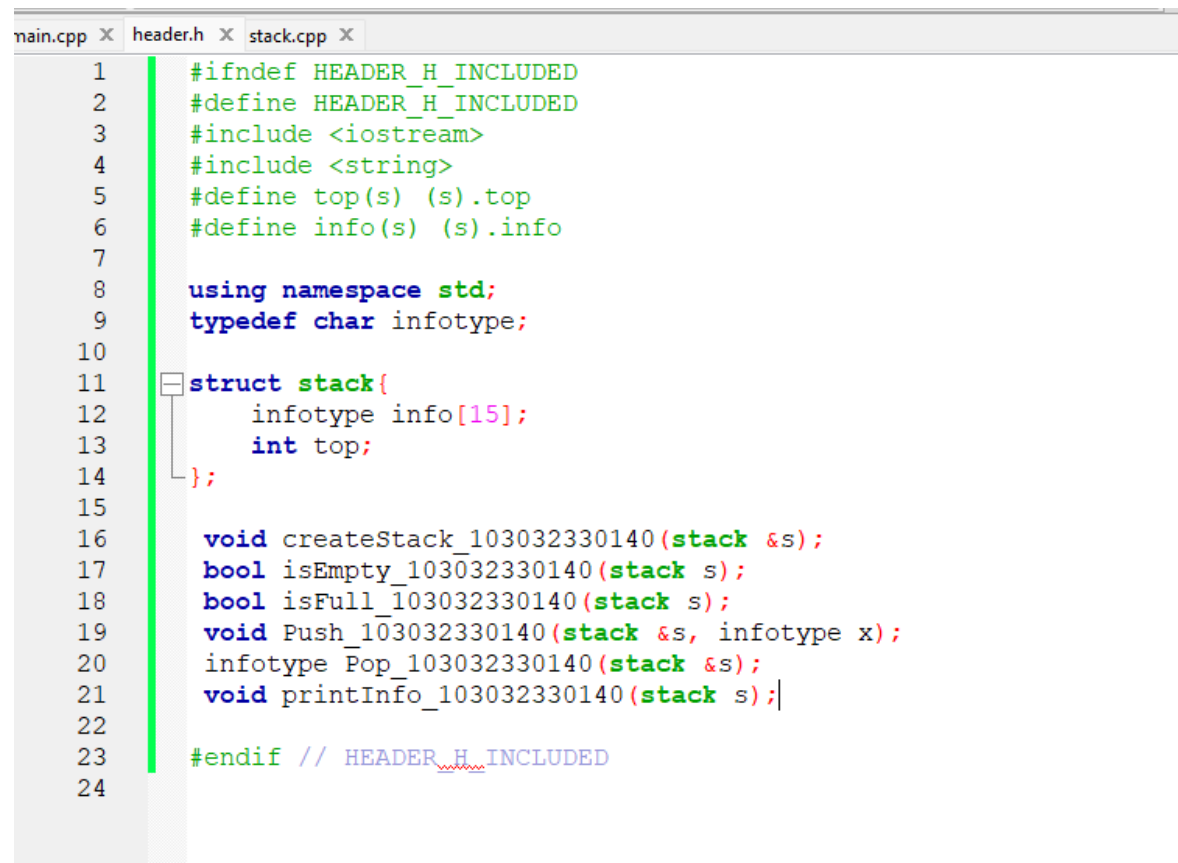
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Header



```
main.cpp x header.h x stack.cpp x
1  #ifndef HEADER_H_INCLUDED
2  #define HEADER_H_INCLUDED
3  #include <iostream>
4  #include <string>
5  #define top(s) (s).top
6  #define info(s) (s).info
7
8  using namespace std;
9  typedef char infotype;
10
11 struct stack{
12     infotype info[15];
13     int top;
14 };
15
16 void createStack_103032330140(stack &s);
17 bool isEmpty_103032330140(stack s);
18 bool isFull_103032330140(stack s);
19 void Push_103032330140(stack &s, infotype x);
20 infotype Pop_103032330140(stack &s);
21 void printInfo_103032330140(stack s);
22
23 #endif // HEADER_H_INCLUDED
24
```

Stack

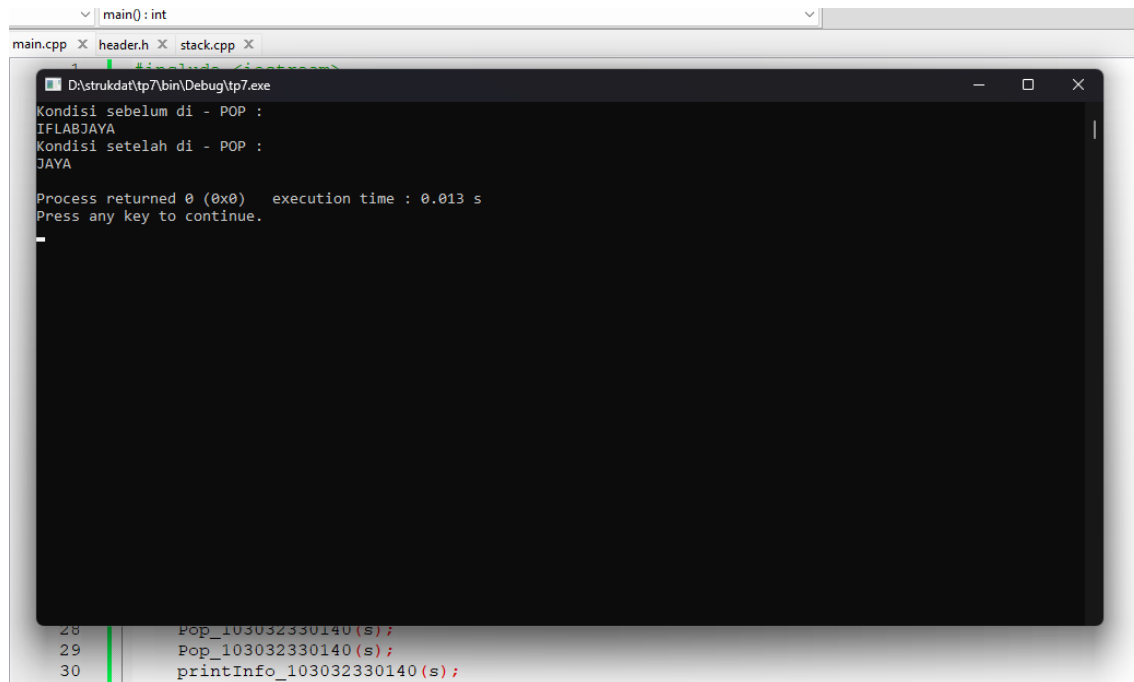
```
main.cpp x header.h x stack.cpp x
1  #include "header.h"
2
3  void createStack_103032330140(stack &s){
4      top(s) = 0;
5  }
6
7  bool isEmpty_103032330140(stack s){
8      if (top(s) == 0){
9          return true;
10     } else {
11         return false;
12     }
13 }
14
15 bool isFull_103032330140(stack s){
16     if (top(s) == 15){
17         return true;
18     } else {
19         return false;
20     }
21 }
22
23 void Push_103032330140(stack &s, infotype x){
24     if (isFull_103032330140(s) == false){
25         top(s) = top(s) + 1;
26         info(s)[top(s)] = x;
27     }
28 }
29
30 infotype Pop_103032330140(stack &s){
31     infotype x;
32     x = info(s)[top(s)];
33     top(s)=top(s)-1;
34     return x;
35 }
```

```
sin.cpp x header.h x stack.cpp x
9         return true;
10      } else {
11          return false;
12      }
13  }
14
15  bool isFull_103032330140(stack s) {
16      if (top(s) == 15) {
17          return true;
18      } else {
19          return false;
20      }
21  }
22
23  void Push_103032330140(stack &s, infotype x) {
24      if (isFull_103032330140(s) == false) {
25          top(s) = top(s) + 1;
26          info(s)[top(s)] = x;
27      }
28  }
29
30  infotype Pop_103032330140(stack &s) {
31      infotype x;
32      x = info(s)[top(s)];
33      top(s) = top(s) - 1;
34      return x;
35  }
36
37  void printInfo_103032330140(stack s) {
38      int i;
39      for (i = top(s); i > 0; i--) {
40          cout << info(s)[i];
41      }
42  }
43
```

Main

```
:pp x header.h x stack.cpp x
1  #include <iostream>
2  #include "header.h"
3
4  using namespace std;
5
6  int main()
7  {
8      cout << "Kondisi sebelum di - POP : " << endl;
9      stack s;
10     createStack_103032330140(s);
11     Push_103032330140(s, 'A');
12     Push_103032330140(s, 'Y');
13     Push_103032330140(s, 'A');
14     Push_103032330140(s, 'J');
15     Push_103032330140(s, 'B');
16     Push_103032330140(s, 'A');
17     Push_103032330140(s, 'L');
18     Push_103032330140(s, 'F');
19     Push_103032330140(s, 'I');
20
21     printInfo_103032330140(s);
22     cout << " " << endl;
23     cout << "Kondisi setelah di - POP : " << endl;
24
25     Pop_103032330140(s);
26     Pop_103032330140(s);
27     Pop_103032330140(s);
28     Pop_103032330140(s);
29     Pop_103032330140(s);
30     printInfo_103032330140(s);
31     cout << " " << endl;
32 }
33
```

Output



The screenshot shows a C++ IDE with a file explorer at the top displaying 'main.cpp', 'header.h', and 'stack.cpp'. The 'main()' function is selected. Below the editor, a debug console window titled 'D:\strukdat\tp7\bin\Debug\tp7.exe' displays the program's output. The output shows the state of a stack before and after a push operation, followed by the process return time and a prompt to press a key to continue. The source code in the background shows a stack push operation.

```
main() : int
main.cpp x header.h x stack.cpp x
1 // ...
28 Pop_103032330140(s);
29 Pop_103032330140(s);
30 printInfo_103032330140(s);
...
```

Output:

```
D:\strukdat\tp7\bin\Debug\tp7.exe
Kondisi sebelum di - POP :
IFLABJAYA
Kondisi setelah di - POP :
JAYA
Process returned 0 (0x0)   execution time : 0.013 s
Press any key to continue.
```