TP MOD 7

Nama : Nabiel Muhamad Irfani

NIM : 103032330140

Kelas : IT – 47 – 04

Kode Asprak : ANM

Header

main.cpp | header.h | stack.cpp

```cpp
#ifndef HEADER_H_INCLUDED
#define HEADER_H_INCLUDED
#include <iostream>
#include <string>
#define top(s) (s).top
#define info(s) (s).info

using namespace std;
typedef char infotype;

struct stack{
    infotype info[15];
    int top;
};

 void createStack_103032330140(stack &s);
 bool isEmpty_103032330140(stack s);
 bool isFull_103032330140(stack s);
 void Push_103032330140(stack &s, infotype x);
 infotype Pop_103032330140(stack &s);
 void printInfo_103032330140(stack s);

#endif // HEADER_H_INCLUDED
```

Stack

main.cpp | header.h | stack.cpp

```cpp
#include "header.h"

void createStack_103032330140(stack &s){
    top(s) = 0;
}

bool isEmpty_103032330140(stack s){
    if (top(s) == 0){
        return true;
    } else {
        return false;
    }
}

bool isFull_103032330140(stack s){
    if (top(s) == 15){
        return true;
    } else {
        return false;
    }
}

void Push_103032330140(stack &s, infotype x){
    if (isFull_103032330140(s) == false){
        top(s) = top(s) + 1;
        info(s)[top(s)] = x;
    }
}

infotype Pop_103032330140(stack &s){
    infotype x;
    x = info(s)[top(s)];
    top(s)=top(s)-1;
    return x;
}
```

ain.cpp | header.h | stack.cpp

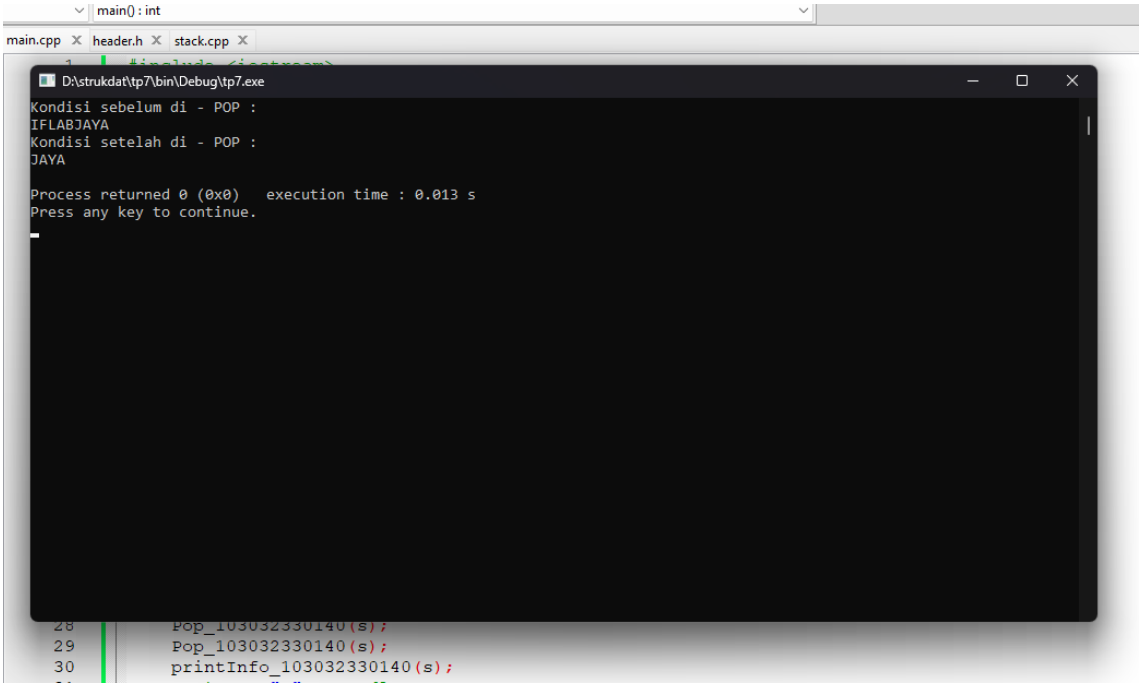
```
9           return true;
10      } else {
11          return false;
12      }
13  }
14
15  bool isFull_103032330140(stack s){
16      if (top(s) == 15){
17          return true;
18      } else {
19          return false;
20      }
21  }
22
23  void Push_103032330140(stack &s, infotype x){
24      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 header.h stack.cpp

```cpp
#include <iostream>
#include "header.h"

using namespace std;

int main()
{
    cout << "Kondisi sebelum di - POP : " << endl;
    stack s;
    createStack_103032330140(s);
    Push_103032330140(s, 'A');
    Push_103032330140(s, 'Y');
    Push_103032330140(s, 'A');
    Push_103032330140(s, 'J');
    Push_103032330140(s, 'B');
    Push_103032330140(s, 'A');
    Push_103032330140(s, 'L');
    Push_103032330140(s, 'F');
    Push_103032330140(s, 'I');

    printInfo_103032330140(s);
    cout  << " " << endl;
    cout << "Kondisi setelah di - POP : " << endl;

    Pop_103032330140(s);
    Pop_103032330140(s);
    Pop_103032330140(s);
    Pop_103032330140(s);
    Pop_103032330140(s);
    printInfo_103032330140(s);
    cout  << " " << endl;
}
```

Output


main() : int
main.cpp
header.h
stack.cpp
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.
Pop_103032330140(s);
printInfo_103032330140(s);