Misbahul Fadhillah
1301210260
IF-45-05
TAPI_MOD_10
Stack.h

```cpp
#ifndef STACK_H_INCLUDED
#define STACK_H_INCLUDED

#include <iostream>
using namespace std;

typedef char infotype;

#define Top(S) (S).Top
#define info(S) (S).info

struct stack{
    infotype info[15];
    int Top;
};
//coba
//stack tumpuk;

void createStack_1301210260(stack &S);
bool isEmpty_130121026(stack S);
bool isFull_1301210260(stack S);
void push_1301210260(stack &S, infotype x);
char pop_1301210260(stack &S);
void printInfo_1301210260(stack S);


#endif // STACK_H_INCLUDED
```

Stack.cpp

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```cpp
#include "stack.h"

void createStack_1301210260(stack &S){
    Top(S)= 0;
}

bool isEmpty_1301210260(stack S){
    if (Top(S) == 0){
        return true;
    }else{
        return false;
    }
}

bool isFull_1301210260(stack S){
    if (Top(S) == 15){
        return true;
    }else{
        return false;
    }
}

void push_1301210260(stack &S, infotype x){
    if (isFull_1301210260(S) == true){
        cout << "stack penuh" <<endl;
    }else{
        Top(S)= Top(S)+1;
        info(S)[Top(S)] = x;
    }
}

infotype pop_1301210260(stack &S){
    infotype x;

    if (isEmpty_1301210260(S) == true){
        return 0;
    }else{
        x = info(S)[Top(S)];
        Top(S) = Top(S) - 1;
        return x;
    }

}
//
void printInfo_1301210260(stack S){
    for(int i = Top(S);i > 0; i--){
        cout << info(S)[i]<<"  ";
    }

}
```

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Main.cpp

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

using namespace std;

int main()
{
    //I F L A B J A Y A
    //J A Y A

    stack S;
    createStack_1301210260(S);
    //infotype x;

    cout << "sebelum di pop"<<endl;


    push_1301210260(S,'A');
    push_1301210260(S,'Y');
    push_1301210260(S,'A');
    push_1301210260(S,'J');
    push_1301210260(S,'B');
    push_1301210260(S,'A');
    push_1301210260(S,'L');
    push_1301210260(S,'F');
    push_1301210260(S,'I');

    printInfo_1301210260(S);
    printInfo_1301210260(S);

    cout << endl;
    cout << endl;

    pop_1301210260(S);
    pop_1301210260(S);
    pop_1301210260(S);
    pop_1301210260(S);
    pop_1301210260(S);

    printInfo_1301210260(S);



    return 0;
```

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Output

```
C:\Users\user\Documents\tp1std\insertFirst1301210260\tpmod10\bin\Debug\tpmod10.exe

sebelum di pop
I  F  L  A  B  J  A  Y  A

J  A  Y  A
Process returned 0 (0x0)    execution time : 0.126 s
Press any key to continue.
```