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Tugas Pendahuluan MODUL 9

Stack.h

```h
#ifndef STACK_H_INCLUDED
#define STACK_H_INCLUDED

#include <iostream>
using namespace std;

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

void createStack_1301223338(stack &s);
bool isEmpty_1301223338(stack s);
bool isFull_1301223338(stack s);
void push_1301223338(stack &s, infotype x);
infotype pop_1301223338(stack &s);
void printInfo_1301223338(stack s);

#endif // STACK_H_INCLUDED
```

Stack.cpp

```cpp
#include "stack.h"

void createStack_1301223338(stack &s){
    s.top = 0;
}

bool isEmpty_1301223338(stack s) {
    return s.top == 0;
}

bool isFull_1301223338(stack s) {
    return s.top == 15;
}

void push_1301223338(stack &s, infotype x){
    if(!isFull_1301223338(s)){
        s.top = s.top + 1;
```

```
        s.info[s.top] = x;
    }else {
        cout << "Stack penuh" << endl;
    }
}

infotype pop_1301223338(stack &s){
    infotype x;
    if(!isEmpty_1301223338(s)){
        x = s.info[s.top-1];
        s.top = s.top - 1;
    }
    return x;
}

void printInfo_1301223338(stack s){
    int i;
    for (i = s.top; i >= 1; i--){
        cout << s.info[i];
    }
    cout << endl;
}
```

Main.cpp

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

using namespace std;

int main()
{
    // NIM : 1301223338 (8 % 4 = 0)
    stack s;
    createStack_1301223338(s);
    string uInp;
    infotype temp;
    int i,c,lenuInp;
    cout << "Input : ";
    cin >> uInp;
    lenuInp = uInp.length();
    while (lenuInp > 0)
    {
        push_1301223338(s, uInp[lenuInp - 1]);
        lenuInp--;
    }
    cout << "isi stack awal: " << endl;
```

```
    printInfo_1301223338(s);

    cout << "isi stack sesudah pop: " << endl;
    while(!isEmpty_1301223338(s)){
        temp = pop_1301223338(s);
        c++;
        if(c >= 6){
            cout << temp;
        }
    }
    cout << endl;
    return 0;
}
```

Output