

C:\Users\bilg\Documents\NetBeansProjects\stack\_liste\_1\main.cpp

```
#include <cstdlib>
#include<exception>
#include<iostream>
using namespace std;

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class ElemanYok:public exception{
public:
    const char* what() const throw(){
        return "hata: stack bos";
    }
};

template <typename Nesne>
class Dugum{
public:
    Nesne eleman;
    Dugum *ileri;
    Dugum(const Nesne& elm,Dugum *ilr=NULL){
        eleman=elm;
        ileri=ilr;
    }
};

template <typename Nesne>
class Stack{
private:
    Dugum<Nesne> *head;
public:
    Stack(){
        head=NULL;
    }
    bool isEmpty() const{
        return head == NULL;
    }
    void push(const Nesne& eleman){
        head = new Dugum<Nesne>(eleman,head);
    }
    void pop() throw(ElemanYok){
        if(isEmpty()) throw ElemanYok();
        Dugum<Nesne> *silinecek = head;
        head = head->ileri;
        delete silinecek;
    }
    const Nesne& top() const throw(ElemanYok){
        if(isEmpty()) throw ElemanYok();
        return head->eleman;
    }
}
```

```
void clear(){//clear
    while(!isEmpty())
        pop();
}
~Stack(){
    clear();
}
};

int main(int argc, char** argv) {

    Stack<string> *stack1 = new Stack<string>();
    stack1->push("eleman1");
    stack1->push("eleman2");
    stack1->push("eleman3");
    stack1->push("eleman4");
    //stack1->pop();
    // stack1->pop();
    while(!stack1->isEmpty()){
        cout<<"\n"<<stack1->top();
        stack1->pop();
    }

    delete stack1;

    return 0;
}
```