

Lab4 q1:

```
#include <iostream>
#include <vector>
using namespace std;
int main(){
    vector<int> vec;
    for(int i = 0; i < 10; i++){
        vec.push_back(i + 1);
    }
    for(vector<int>::iterator it = vec.begin(); it != vec.end(); it++){
        cout << *it << endl;
    }
    return 0;
}
```

Q2:

```
#include <iostream>
#include <stack>
#include <cstring>
using namespace std;
int main(){
    stack<const char*> s;
    const char* str[10]= {"rose", "lily", "cynthia", "iris", "veronica",
"ivy", "susan", "daphne", "violet", "garland"};
    for(int i = 0; i < 10; i++){
        s.push(str[i]);
    }
    while(!s.empty()){
        cout << s.top() << endl;
        s.pop();
    }
    return 0;
}
```

Q3:

```
#include <iostream>
#include <stack>
#include <queue>
#include <cstring>
using namespace std;
stack<double> res;
char operation;
double number;
double operand1;
```

```

double operand2;
double result;
int check = 1;
char GameChecker = 'y';
void calculator();
int main(){
    while(GameChecker == 'y'){
        calculator();
        cout << "Do you want to continue calculating?(y for continue, n for
quit)" << endl;
        cin >> GameChecker;
    }
    return 0;
}
void calculator(){
    cout << "Do you want to input the operand?(1 for continue, 0 to quit)" <<
endl;
    cin >> check;
    while(check == 1){
        cout << "input the operand" << endl;
        cin >> number;
        res.push(number);
        cout << "Do you want to continuing input?(1 for continue, 0 to quit)"
<< endl;
        cin >> check;
    }
    cin.clear();
    cout << "input the operation you want" << endl;
    cin >> operation;
    switch(operation){
        case '+':
            operand1 = res.top();
            res.pop();
            operand2 = res.top();
            res.pop();
            result = operand1 + operand2;
            res.push(result);
            break;
        case '-':
            operand1 = res.top();
            res.pop();
            operand2 = res.top();
            res.pop();
            result = operand2 - operand1;

```

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        res.push(result);
        break;
    case '*':
        operand1 = res.top();
        res.pop();
        operand2 = res.top();
        res.pop();
        result = operand1 * operand2;
        res.push(result);
        break;
    case '/':
        operand1 = res.top();
        res.pop();
        operand2 = res.top();
        res.pop();
        result = operand2 / operand1;
        res.push(result);
        break;
    }
    check = 1;
    cout << res.top() << endl;
}

```

Result:

```

1
2
3
4
5
6
7
8
9
10

```

```

garland
violet
daphne
susan
ivy
veronica
iris
cynthia
lily
rose

```

```
Do you want to input the operand?(1 for continue, 0 to quit)
1
input the operand
10
Do you want to continuing input?(1 for continue, 0 to quit)
1
input the operand
2
Do you want to continuing input?(1 for continue, 0 to quit)
0
input the operation you want
/
5
Do you want to continue calculating?(y for continue, n for quit)
y
Do you want to input the operand?(1 for continue, 0 to quit)
1
input the operand
-1
Do you want to continuing input?(1 for continue, 0 to quit)
0
input the operation you want
*
-5
Do you want to continue calculating?(y for continue, n for quit)
y
Do you want to input the operand?(1 for continue, 0 to quit)
1
input the operand
2.2
Do you want to continuing input?(1 for continue, 0 to quit)
0
input the operation you want
+
-2.8
Do you want to continue calculating?(y for continue, n for quit)
y
Do you want to input the operand?(1 for continue, 0 to quit)
1
input the operand
4
Do you want to continuing input?(1 for continue, 0 to quit)
1
input the operand
5
Do you want to continuing input?(1 for continue, 0 to quit)
1
input the operand
6
```

```
Do you want to continuing input?(1 for continue, 0 to quit)
0
input the operation you want
+
11
Do you want to continue calculating?(y for continue, n for quit)
y
Do you want to input the operand?(1 for continue, 0 to quit)
0
input the operation you want
+
15
Do you want to continue calculating?(y for continue, n for quit)
n
```