SANTOS, MA. KASSANDRA NICOLE D.
CPE21S4

Using queue to loop the set until there is no more element:

```
C/C++
#include <iostream>
#include <string>
#include <queue>
using namespace std;

void display(queue<string> pl) {
    while (!pl.empty()) {
        cout << pl.front() << endl;
        pl.pop();
    }
    cout << endl;
}

int main() {
    queue<string> pl;
    cout<<"push element into queue:" <<endl;
    pl.push("C++");
    pl.push("Java");
    pl.push("Python");

    if (!pl.empty()) {
        pl.pop();
        display (pl);
    }else{
        cout<< "The elements have been popped"<<endl;
    }

    return 0;
}
```

Using stacks to loop the set until there is no more element:

C/C++

```
#include <iostream>
#include <string>
#include <stack>
using namespace std;

void display(stack<string> pl) {
    while (!pl.empty()) {
        cout << pl.top() << endl;
        pl.pop();
    }
    cout << endl;
}

int main() {
    stack<string> pl;
    cout<<"push element into stack:" <<endl;
    pl.push("C++");
    pl.push("Java");
    pl.push("Python");

    if (!pl.empty()) {
        pl.pop();
        display (pl);
    }else{
        cout<< "The elements have been popped"<<endl;
    }
    return 0;
}
```

Link to this code: [copy]

Run

options | compilation | execution

```
push element into stack:
Java
C++

Normal program termination. Exit status: 0
```

Using queue to loop the set until there is too element for the system to push(FOR queue)::

C/C++

```
#include <iostream>
#include <string>
#include <queue>
using namespace std;

const size_t MAX_SIZE = 3;

void display(queue<string> pl) {
    while (!pl.empty()) {
        cout << pl.front() << endl;
        pl.pop();
    }
    cout << endl;
}

bool isFull(queue<string>& pl) {
    return pl.size() >= MAX_SIZE;
}

int main() {
    queue<string> pl;
    cout << "Push elements into the queue:" << endl;

    if (!isFull(pl)) pl.push("C++");
    if (!isFull(pl)) pl.push("Java");
    if (!isFull(pl)) pl.push("Python");
    if  (!isFull(pl)) pl.push("c#");

    if (!isFull(pl)) {
        display(pl);
    } else {
        cout << "The queue is full. Cannot push elements." << endl;
    }

    return 0;
}
```