**CS/IV/18-07**

#include<iostream>

#include<stack>

using namespace std;

struct student

{

int rollNo,school;

};

class wizTourney

{

stack<student> hogwarts;

int x,y;

public:

void getData();

};

void wizTourney::getData()

{

char ch;

student S,top;

stack<student> temp;

cin>>ch;

if(ch=='E')

{

cin>>S.school>>S.rollNo;

while(!hogwarts.empty())

{

top=hogwarts.top();

if(S.school==top.school)

{

hogwarts.push(S);

while(!temp.empty())

{

hogwarts.push(temp.top());

temp.pop();

}

return;

}

temp.push(hogwarts.top());

hogwarts.pop();

}

while(!temp.empty())

{

hogwarts.push(temp.top());

temp.pop();

}

hogwarts.push(S);

}

else if(ch=='D')

{

stack<student> temp;

while(!hogwarts.empty())

{

temp.push(hogwarts.top());

hogwarts.pop();

}

student S;

S=temp.top();

cout<<S.school<<" "<<S.rollNo<<"\n";

temp.pop();

while(!temp.empty())

{

hogwarts.push(temp.top());

temp.pop();

}

}

}

int main()

{

int Q;

wizTourney W;

cin>>Q;

while(Q--)

{

W.getData();

}

return 0;

}