#include <stdio.h>

#include <stdlib.h>

#define size 10

int top = -1;

int \_array[size];

void push(int v){

\_array[++top] = v;

}

void pop(){

top--;

}

int peek(){

return \_array[top];

}

void isEmpty(){

if(top <0) printf("stack is empty");

else printf("stack has %d elements\n",top+1);

}

void print(){

if(top <0) printf("stack is empty");

else {

printf("Elements: \n");

for(int i=0; i<=top; i++){

printf("%d ",\_array[i]);

}

printf("\n");

}

}

int main(){

int ch;

int n,p;

printf("1.push\n2.pop\n3.peek\n4.isEmpty\n5.exit\n");

while(1){

scanf("%d",&ch);

switch(ch){

case 1: scanf("%d",&n);

push(n);

print();

break;

case 2: pop();

print();

break;

case 3: p=peek();

printf("peek function executed %d\n",p);

break;

case 4: isEmpty();

break;

case 5: exit(1);

default: printf("I have no idea what you are trying to do!\n");

exit(1);

};

}

return 0;

}

**OUTPUT**

$ gcc stack\ with\ array.c

$ ./a.out

1.push

2.pop

3.peek

4.isEmpty

5.exit

1 1

1

1 2

1 2

1 3

1 2 3

1 4

1 2 3 4

2

1 2 3

3

Peek function executed 3

# #include <stdio.h>

# #include <stdlib.h>

# #define size 10

# int \_array[size];

# int head=-1,rear=-1;

# void insert(int value){

# if(head == -1 && rear == -1){

# head++; rear++;

# \_array[head] = value;

# }

# else if(rear >= size-1) printf("queue is full\n");

# else \_array[++rear] = value;

# }

# void delete(){

# if(rear == -1) printf("queue is empty\n");

# else rear--;

# }

# int getHead(){

# return head;

# }

# int getRear(){

# return rear;

# }

# void print(){

# for(int i=0; i<=rear; i++){

# printf("%d ", \_array[i]);

# }

# printf("\n");

# }

# int main(){

# int t;

# printf("How many number of inputs?\nMAX SIZE is 10\n");

# scanf("%d",&t);

# if(t<0 || t>10) t = 10;

# while(t--){

# insert(t);

# }

# print();

# insert(size);

# print();}

# OUTPUT

# How many number of inputs? MAX SIZE is 10

# 5

4 3 2 1 0

4 3 2 1 0 10

#include <stdio.h>

#include <stdlib.h>

#include "functions.h"

node head;

int main(){

head = NULL;

int n,t;

printf("Number of inputs?\n");

scanf("%d",&t);

while(t--){

scanf("%d",&n);

insertAtEnd(n);

}

printf("List contains: ");

print();

deleteAtBeginning();

print();

deleteAtEnd();

print();

return 0;

}