Code:

//Queue using two Stack

#include<stdio.h>

#define size 5

#include <stdlib.h>

int stk1[size],stk2[size];

int top1=-1,top2=-1;

int count=0;

void push1(int element)

{

top1++;

stk1[top1]=element;

}

int pop1()

{

int x= stk1[top1];

top1--;

return x;

}

void push2(int element)

{

top2++;

stk2[top2]= element;

}

int pop2()

{

int x= stk2[top2];

top2--;

return x;

}

void enque(int element)

{

if(top1==size-1)

printf("Overflow Condition");

else

{

printf("Element enqueued:%d\n",element);

push1(element);

count++;

}

}

void deque()

{

if((top1==-1)&&(top2==-1))

printf("\nQue is Empty");

else

{

for(int i=0;i<count;i++)

{

int x= pop1();

push2(x);

}

int t=pop2();

printf("\n The dequed element:%d\n",t);

count--;

for(int i=0;i<count;i++)

{

int x= pop2();

push1(x);

}

}

}

void display()

{

if (top1 == -1) {

printf("Queue is empty\n");

}

else{

for(int i=0;i<=top1;i++)

printf("%d\t",stk1[i]);

}

printf("\n");

}

void main()

{

int e;

int ch;

while(1)

{

printf("\nEnter Your Choice for\n 1:Enque n 2:Deque\n 3:Display\n 4:Exit\nChoice:");

scanf("%d",&ch);

switch(ch)

{

case 1:

printf("Enter element you want to enque:");

scanf("%d",&e);

enque(e);

break;

case 2:

deque();

break;

case 3:

display();

break;

case 4:

exit(0);

}

}

}

/\* Output :

Enter Your Choice for

1:Enque

2:Deque

3:Display

4:Exit

Choice:1

Enter element you want to enque:20

Element enqueued:20

Enter Your Choice for

1:Enque

2:Deque

3:Display

4:Exit

Choice:1

Enter element you want to enque:30

Element enqueued:30

Enter Your Choice for

1:Enque

2:Deque

3:Display

4:Exit

Choice:1

Enter element you want to enque:50

Element enqueued:50

Enter Your Choice for

1:Enque

2:Deque

3:Display

4:Exit

Choice:1

Enter element you want to enque:60

Element enqueued:60

Enter Your Choice for

1:Enque

2:Deque

3:Display

4:Exit

Choice:2

The dequed element:20

Enter Your Choice for

1:Enque

2:Deque

3:Display

4:Exit

Choice:3

30 50 60

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