#include<stdio.h>//standard input output header file//

#include<stdlib.h>//standard library header file//

struct node

{

int data;//initializes the data//

struct node \*next;//initializes the next//

};

struct node \*front=-1;//initializes the front value//

struct node \*rear=-1; //initializes the rare value//

void enqueue(int x)//enqueue function//

{

struct node \*newnode;

newnode=(struct node \*)malloc(sizeof(struct node));//malloc function//

newnode->data=x;

newnode->next=0;

if(rear==-1)//checks the condition//

{

front=rear=newnode;

rear->next=front;

}

else

{

rear->next=newnode;

rear=newnode;

rear->next=front;

}

}

void dequeue()//dequeue function//

{

struct node \*temp;

temp=front;

if((front==-1)&&(rear==-1))//checks the condition//

{

printf("Queue is empty");//prints the statement//

}

else if(front==rear)//checks the condition//

{

front=rear=-1;

free(temp);

}

else

{

front=front->next;

rear->next=front;

free(temp);

}

}

void display()//display function//

{

struct node\* t;

t = front;

if((front==NULL)&&(rear==NULL))//checks the condition//

printf("\nQueue is Empty");//prints the statement//

else{

do{

printf("\n%d",t->data); //prints the statement//

t = t->next;

}while(t != front);

}

}

int main()//main function//

{

int choice,n,i,data;//initializing the variables//

while(1)//loop//

{

printf("\nSelect the operation\n");//prints the statement//

printf("1.Insert\n2.Delete\n3.Display\n4.Exit\n");//prints the statement//

scanf("%d",&choice);//scans and the initializes the memory//

switch(choice)//switch case//

{

case 1: printf("\nEnter the number of data:"); //prints the statement//

scanf("%d",&n);//scans and memory will be declared//

printf("\nEnter your data");//prints the statement//

i=0;

while(i<n){

scanf("%d",&data);//scans and memory will be declared//

enqueue(data);

i++;

}

break;

case 2: dequeue();//dequeue function//

break;

case 3: display();//display function//

break;

case 4: exit(0);

default: printf("Invalid choice");//prints the statement//

break;

}

}

return 0;

}