**//Create a Queue ADT using Array Data structure and perform its operations**

#include<iostream.h>

#include<conio.h>

int queue[5],n=5,front=-1,rear=-1;

void enqueue(int val)

{

if(rear==n-1)

cout<<"Queue Overflow"<<endl;

else

{

if(front==-1)

front=0;

rear++;

queue[rear]=val;

}

}

void dequeue()

{

if(front==-1||front>rear)

{

cout<<"Queue Underflow";

return;

}

else

{

cout<<"Element deleted from queue is:"<<queue[front];

front++;

}

}

void displayQueue()

{

if((front==-1)||(front>rear))

cout<<"Queue is empty"<<endl;

else

{

cout<<"Queue elements are:";

for(int i=front;i<=rear;i++)

cout<<queue[i]<<" ";

cout<<endl;

}

}

void main()

{

clrscr();

int option,val;

cout<<"\n QUEUE ADT OPERATIONS USING ARRAY \n";

cout<<"1)Insert element to queue"<<endl;

cout<<"2)Delete element from queue"<<endl;

cout<<"3)Display all the elements of queue"<<endl;

cout<<"4)Exit"<<endl;

while(option!=4)

{

cout<<"\nEnter your choice:"<<endl;

cin>>option;

switch(option)

{

case 1:

{

cout<<"Enter value to be insert:\n";

cin>>val;

enqueue(val);

break;

}

case 2:

{

dequeue();

break;

}

case 3:

{

displayQueue();

break;

}

case 4:

{

cout<<"Exiting..."<<endl;

break;

}

default:

{

cout<<"Invalid choice"<<endl;

}

}

}

}

**OUTPUT:**





