# Program:

#include<iostream>

using namespace std;

void insert();

void del();

void display();

int rear=-1,front=-1,queue[3];

int main()

{

int schoice, data, choice;

do

{

cout<<"Enter Your Choice:\n1.Insert\n2.Delete\n3.Display\n";

cin>>schoice;

switch(schoice)

{

case 1: insert();

break;

case 2: del();

break;

case 3: display();

break;

default: cout<<"Invalid Choice\n";

break;

}

cout<<"\nPress Anykey to continue And 0 To Abort\n";

cin>>choice;

}while(choice!=0);

return 0;

}

void insert()

{

int data;

if(rear==2)

{

cout<<"\nQueue overflow\n";

return;

}

if(front==-1)

front=0;

cout<<"\nEnter The data to be inserted:\n";

cin>>data;

rear++;

queue[rear]=data;

}

void del()

{

int j;

if(front==-1)

cout<<"\nQueue is Empty\n";

else if(rear==front)

{

cout<<"deleted element is: "<<queue[front]<<"\n";

}

else if(rear+1==front)

{

cout<<"Nothing to delete, Queue resetted\n";

rear=front=-1;

}

else

cout<<"deleted element is: "<<queue[front]<<"\n";

front++;

}

void display()

{

int i;

if((front==-1)&&(rear==-1))

{

cout<<"\nQueue is empty\n";

}

else

{

cout<<"\nData stored in queue are\nThe data displayed are from the top to bottom\n";

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

{

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

}

}

}

# Output:

[ur12cs135@linux ~]$ g++ exp1b.cpp

[ur12cs135@linux ~]$ ./a.out

Enter Your Choice:

1.Insert

2.Delete

3.Display

2

Queue is Empty

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

1

Enter The data to be inserted:

1

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

1

Enter The data to be inserted:

2

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

1

Enter The data to be inserted:

3

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

1

Queue overflow

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

3

Data stored in queue are

The data displayed are from the top to bottom

1

2

3

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

2

deleted element is: 1

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

3

Data stored in queue are

The data displayed are from the top to bottom

2

3

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

2

deleted element is: 2

Press Anykey to continue And 0 To Abort

1

Enter Your Choice:

1.Insert

2.Delete

3.Display

2

deleted element is: 3

Press Anykey to continue And 0 To Abort

0