**PROGRAM FOR QUEUE:**

**import java.util.Scanner;**

**public class Queue**

**{**

**private int front,rear,size,value;**

**int[] Q=new int[100];**

**Scanner s=new Scanner(System.*in*);**

**public**

**Queue(int size1)**

**{**

**front=-1;**

**rear=-1;**

**size=size1;**

**value=0;**

**}**

**public int isempty()**

**{**

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

**{**

**return 1;**

**}**

**else**

**{**

**return 0;**

**}**

**}**

**public int isfull()**

**{**

**if(rear==size-1)**

**{**

**return 1;**

**}**

**else**

**return 0;**

**}**

**public void enq()**

**{front=0;**

**if(isfull()==1)**

**{**

**System.*out*.println("Queue is full");**

**}**

**else**

**{**

**System.*out*.println("Enter element of queue");**

**value=s.nextInt();**

**rear++;**

**Q[rear]=value;**

**System.*out*.println("Enqueued element is "+Q[rear]);**

**}**

**}**

**public void deq()**

**{**

**if(isempty()==1)**

**{**

**System.*out*.println("Queue is empty");**

**}**

**else**

**{**

**value=Q[front];**

**System.*out*.println("Dequeued element is "+value);**

**}**

**if(front==rear)**

**{**

**front=rear=-1;**

**}**

**else**

**{**

**front++;**

**}**

**}**

**public void display()**

**{**

**int i;**

**if(isempty()==1)**

**{**

**System.*out*.println("Queue is empty");**

**}**

**else**

**{**

**System.*out*.println("Queue is");**

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

**{**

**System.*out*.println(+Q[i]);**

**}**

**}**

**}**

**public static void main(String[] args)**

**{**

**int size1,ch;**

**System.*out*.println("Enter size of Queue");**

**Scanner s=new Scanner(System.*in*);**

**size1=s.nextInt();**

**Queue q1=new Queue(size1);**

**do**

**{**

**System.*out*.println("-------------");**

**System.*out*.println("Menu\n1.Enqueue\n2.Dequeue\n3.Display\n4.Exit");**

**System.*out*.println("-------------\n");**

**System.*out*.println("Enter your Choice");**

**ch=s.nextInt();**

**switch(ch)**

**{**

**case 1:**

**q1.enq();**

**break;**

**case 2:**

**q1.deq();**

**break;**

**case 3:**

**q1.display();**

**break;**

**case 4:**

**break;**

**default:**

**System.*out*.println("Invalid Choice");**

**break;**

**}**

**}while(ch!=4);**

**s.close();**

**}**

**}**

**OUTPUT:**

Enter size of Queue

3

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

1

Enter element of queue

91

Enqueued element is 91

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

1

Enter element of queue

92

Enqueued element is 92

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

1

Enter element of queue

93

Enqueued element is 93

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

1

Queue is full

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

3

Queue is

91

92

93

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

2

Dequeued element is 91

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

2

Dequeued element is 92

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

2

Dequeued element is 93

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

2

Queue is empty

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

3

Queue is empty

-------------

Menu

1.Enqueue

2.Dequeue

3.Display

4.Exit

-------------

Enter your Choice

4