1.

#include <stdio.h>

#define MAX\_SIZE 100

int queue[MAX\_SIZE];

int front = -1;

int rear = -1;

void enqueue(int data) {

if (rear == MAX\_SIZE - 1) {

printf("Queue is full. Cannot enqueue element.\n");

} else {

if (front == -1) {

front = 0;

}

rear++;

queue[rear] = data;

printf("%d enqueued successfully.\n", data);

}

}

void dequeue() {

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

printf("Queue is empty. Cannot dequeue element.\n");

} else {

printf("%d dequeued successfully.\n", queue[front]);

front++;

if (front > rear) {

front = rear = -1;

}

}

}

void findElement(int data) {

int i;

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

if (queue[i] == data) {

printf("%d found at index %d.\n", data, i);

return;

}

}

printf("%d not found in the queue.\n", data);

}

int main() {

enqueue(10);

enqueue(20);

enqueue(30);

enqueue(40);

dequeue();

findElement(20);

findElement(50);

return 0;

}

2.

#include<stdio.h>

# define MAX 5

int cqueue\_arr[MAX];

int front = -1;

int rear = -1;

void insert(int item)

{

if((front == 0 && rear == MAX-1) || (front == rear+1))

{

printf("Queue Overflow n");

return;

}

if(front == -1)

{

front = 0;

rear = 0;

}

else

{

if(rear == MAX-1)

rear = 0;

else

rear = rear+1;

}

cqueue\_arr[rear] = item ;

}

void deletion()

{

if(front == -1)

{

printf("Queue Underflown");

return ;

}

printf("Element deleted from queue is : %dn",cqueue\_arr[front]);

if(front == rear)

{

front = -1;

rear=-1;

}

else

{

if(front == MAX-1)

front = 0;

else

front = front+1;

}

}

void display()

{

int front\_pos = front,rear\_pos = rear;

if(front == -1)

{

printf("Queue is emptyn");

return;

}

printf("Queue elements :n");

if( front\_pos <= rear\_pos )

while(front\_pos <= rear\_pos)

{

printf("%d ",cqueue\_arr[front\_pos]);

front\_pos++;

}

else

{

while(front\_pos <= MAX-1)

{

printf("%d ",cqueue\_arr[front\_pos]);

front\_pos++;

}

front\_pos = 0;

while(front\_pos <= rear\_pos)

{

printf("%d ",cqueue\_arr[front\_pos]);

front\_pos++;

}

}

printf("n");

}

int main()

{

int choice,item;

do

{

printf("1.Insertn");

printf("2.Deleten");

printf("3.Displayn");

printf("4.Quitn");

printf("Enter your choice : ");

scanf("%d",&choice);

switch(choice)

{

case 1 :

printf("Input the element for insertion in queue : ");

scanf("%d", &item);

insert(item);

break;

case 2 :

deletion();

break;

case 3:

display();

break;

case 4:

break;

default:

printf("Wrong choicen");

}

}while(choice!=4);

return 0;

}