CODE

1. Queue using an array

#include<stdio.h>

#include<conio.h>

#define max 5

int q[max],front=-1,rear=-1;

void enqueue();

void dequeue();

void display();

int main()

{

int ch;

printf("\n1.Enqueue");

printf("\n2.Dequeue");

printf("\n3.Display");

while(1)

{

printf("\n Enter choice");

scanf("%d",&ch);

switch (ch)

{

case 1:

enqueue();

break;

case 2:

dequeue();

break;

case 3:

display();

break;

default:

printf("Wrong choice");

}

}

}

void enqueue()

{

int data;

if(rear == max-1)

{

printf("Overflow");

}

else

{

if(front== -1)

{

front = 0;

}

printf("Enter Elements:");

scanf("%d",&data);

rear = rear+1;

q[rear]=data;

}

}

void dequeue()

{

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

{

printf("\n Underflow");

}

else

{

printf("\n Dequeue : %d",q[front]);

front = front+1;

}

}

void display()

{

int i;

if(front == -1)

{

printf("\n Queue is emptyu");

}

else

{

printf("Elements:");

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

{

printf("\n %d",q[i]);

}

}

}

Output:

