QUEUE:

#include <stdio.h>

#define N 5

int queue[N];

int front=-1,rear=-1;

void enqueue(int x) {

if (rear==N-1) {

printf("Queue overflow\n");

}

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

front=rear=0;

queue[rear]=x;

}

else {

rear++;

queue[rear]=x;

}

}

void dequeue() {

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

printf("Queue is empty\n");

}

else if(front==rear){

printf("Deleted element is: %d\n",queue[front]);

front=rear=-1;

}

else{

printf("Deleted element is: %d\n",queue[front]);

front++;

}

}

void display() {

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

printf("Queue is empty\n");

}

else {

printf("Queue elements are:\n");

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

printf("%d ",queue[i]);

}

printf("\n");

}

}

void peek(){

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

printf("Queue is empty\n");

}

else{

printf("Front element: %d\n",queue[front]);

}

}

int main() {

int choice,x;

do{

printf("\n1.Enqueue\n");

printf("2.Dequeue\n");

printf("3.Display\n");

printf("4.Peek\n");

printf("5.Exit\n");

printf("Enter your choice: ");

scanf("%d",&choice);

switch(choice) {

case 1:

printf("Enter element to insert: ");

scanf("%d",&x);

enqueue(x);

break;

case 2:

dequeue();

break;

case 3:

display();

break;

case 4:

peek();

break;

case 5:

printf("Exiting....\n");

break;

default:

printf("Invalid Choice\n");

}

}

while (choice !=5);

return 0;

}

OUTPUT:





