DS LAB- QUEUE PROGRAM

#include<stdio.h>

#include<stdlib.h>

#define size 50

int queue[size];

int rear=-1;

int front=-1;

void insert()

{

int x;

if(rear==size-1)

printf("Queue overflow\n");

else

{

if(front==-1)

front=0;

printf("Insert an element in queue: ");

scanf("%d",&x);

rear=rear+1;

queue[rear] = x;

}

}

void delete()

{

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

{

printf("queue is underflow\n");

return;

}

else

{

printf("Element deleted from the queue is %d\n",queue[front]);

front=front+1;

}

}

void display()

{

int i;

if(front==-1)

printf("Queue is empty\n");

else

{

printf("Queue is: ");

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

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

printf("\n");

}

}

void main()

{

int ch;

while(1)

{

printf("\n");

printf("1:Insert an element\n");

printf("2:Delete an element\n");

printf("3:Display an element\n");

printf("4:Exit \n");

printf("Enter your choice\n");

scanf("%d",&ch);

switch(ch)

{

case 1:

insert();

break;

case 2:

delete();

break;

case 3:

display();

break;

case 4:

exit(1);

break;

default:

printf("Wrong choice\n");

}

}

}

