Lab 3: Queue

Name: J S AMOGH KRISHNA USN: 1BM23CS029

Class: 3A

**Code:**

#include <stdio.h>

#include <stdlib.h>

#define max 3

int front=-1, rear=-1, i, queue[10], ch, item;

void insert(); int del();

void display();

void main()

{

while (1)

{

printf("\n1. INSERT \n2. DELETE \n3. DISPLAY \n4. EXIT \n Enter Your Choice: "); scanf("%d",&ch);

switch (ch)

{

case 1: insert(); break;

case 2: item=del(); if (item!=-1)

{

printf("The Deleted Item is:%d\n", item);

} break;

case 3: display(); break;

case 4: exit(0);

}

}

}

void insert()

{

if (rear==max-1)

{

printf("Queue is Full \n"); return;

}

printf("Enter Element: \n"); scanf("%d",&item);

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

{

rear=0; front=0;

}

else

{

rear=rear+1;

}

queue[rear]=item; return;

}

int del()

{

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

{

printf("Queue is Empty\n"); return -1;

}

item=queue[front];

if (front==rear)

{

front=-1; rear=-1;

}

else

{

front=front+1;

}

return item;

}

void display()

{

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

{

printf("Queue is Empty \n"); return;

}

printf("The Elements of the Queue are: \n"); for (i=front;i<=max-1;i++)

{

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

}

return;

}

**Output:**





