

Vedika Dalmia, IBM19CS181

WAP to simulate the working of a queue of int using an array. Provide the following oper

- a) Insert      b) Delete      c) Display:

```
#define SIZE 50
int SIZE S[SIZE]
int front = -1, rear = -1;
```

```
IsFull()
```

```
{
    if (rear == SIZE - 1)
        return True;
    else
        return False;
}
```

```
IsEmpty()
```

```
{
    if (front == -1 && rear == -1)
        return True;
    else
        return False;
}
```

```
Enqueue (int x)
```

```
{
    if (IsFull())
    {
        Printf("Q is Full");
    }
    else if (IsEmpty())
    {
        front = 0;
        rear = 0;
    }
    else
    {
        rear = rear + 1;
        A[rear] = x;
    }
}
```

int Dequeue ()

{

if (IsEmpty ())

• printf ("Queue is empty");

else if (front == rear)

{

x = S[front];

front = -1;

rear = -1;

}

else

{

x = S[front];

front = front + 1;

}

return x;

}