**Name: Varad Rane**

**PRN: 123B1F117**

**Code:**

class Patient:

def \_\_init\_\_(self, name, condition):

self.name = name

self.condition = condition

self.next = None

class EmergencyRoomQueue:

def \_\_init\_\_(self):

self.head = None

self.tail = None

def is\_empty(self):

return self.head is None

def add\_patient(self, name, condition):

new\_patient = Patient(name, condition)

if self.is\_empty():

self.head = self.tail = new\_patient

else:

self.tail.next = new\_patient

self.tail = new\_patient

print(f"Patient {name} added to the queue with condition: {condition}.")

def remove\_patient(self):

if self.is\_empty():

print("No patients in the queue.")

return None

removed\_patient = self.head

self.head = self.head.next

if self.head is None:

self.tail = None

print(f"Patient {removed\_patient.name} removed from the queue.")

return removed\_patient

def move\_patient\_up(self, name):

if self.is\_empty():

print("No patients in the queue.")

return

# If the patient to move is the first one

if self.head.name == name:

print(f"Patient {name} is already at the front of the queue.")

return

prev = None

current = self.head

while current and current.name != name:

prev = current

current = current.next

if current is None:

print(f"Patient {name} not found in the queue.")

return

if prev:

prev.next = current.next

if current == self.tail:

self.tail = prev

current.next = self.head

self.head = current

print(f"Patient {name} moved to the front of the queue.")

def search\_patient(self, name):

current = self.head

while current:

if current.name == name:

print(f"Patient {name} found with condition: {current.condition}.")

return current

current = current.next

print(f"Patient {name} not found in the queue.")

return None

def update\_patient\_info(self, name, new\_condition):

patient = self.search\_patient(name)

if patient:

patient.condition = new\_condition

print(f"Patient {name}'s condition updated to: {new\_condition}.")

def display\_queue(self):

if self.is\_empty():

print("The queue is empty.")

return

current = self.head

print("Current queue:")

while current:

print(f"Patient Name: {current.name}, Condition: {current.condition}")

current = current.next

**Output:**



