```
#include <iostream>
#include <string>
using namespace std;
const int MAX_SIZE = 100;
struct Patient {
string name;
int priority;
};
class PQ {
private:
Patient p[MAX_SIZE];
int size;
public:
PQ() {
size = 0;
}
void enqueue(string name, int priority) {
if (size == MAX_SIZE) {
cout << "Queue is full!" << endl;
return;
}p[size].name = name;
p[size].priority = priority;
size++;
}
void dequeue() {
if (size == 0) {
cout << "Queue is empty!" << endl;
return;
}
int HP = 0;
for (int i = 1; i < size; i++) {
if (p[i].priority < p[HP].priority) {
HP = i;
}
}
cout << "Patient Name: " << p[HP].name << ", Priority: ";
switch (p[HP].priority) {
case 1:
cout << "Serious";
break;
case 2:
cout << "Non-serious";
break;
case 3:
cout << "General Check-Up";
break;
}
cout << endl;
for (int i = HP; i < size - 1; i++) {
p[i] = p[i + 1];
}size--;
}
```

```
};
int main() {
PQ P;
int n;
cout << "Enter the number of patients: ";
cin >> n;
for (int i = 0; i < n; i++) {
string name;
int priority;
cout << "Enter patient " << i + 1 << " name: ";
cin >> name;
cout<<"enter 1 for serious patient , 2 for nonserious , 3 for general check up"<<endl;
cout << "Enter priority : ";
cin >> priority;
P.enqueue(name, priority);
}
cout << "Dequeuing patients..." << endl;
while (n--) {
P.dequeue();
}
return 0;
}
```