

```

/*CSC 326 Lab 4 Queue*/
#include<iostream>
#include<fstream>
#include<vector>
#include<string>
#include<queue>

using namespace std;

class Queue {
private:
    int head = 0;
    int tail = 0;
    int capacity = 0;
    int count = 0;
    int* arr;

public:
    Queue(int capacity);
    void Enqueue(char process, int srvct, int trnrndt);
    int Dequeue();
    ~Queue();
};

Queue::~Queue() {
    delete[] arr;
}

Queue::Queue(int capacity) : capacity(capacity) {
    arr = new int[capacity];
    //this->capacity = capacity;
}

void Queue::Enqueue(char process, int srvct, int trnrndt) {
    if (count == capacity) {
        cout << "Queue is already full" << endl;
        return;
    }
}

int Queue::Dequeue() {
    if (count == 0) {
        cout << " Queue is currently empty." << endl;
        return 0;
    }
    int temp = arr[head];
    head = (head + 1) % capacity;
    count--;
    return temp;
}

int main()
{
    Queue process(5);
    Queue service_time(5);
    Queue turnaround_time(5);

    process.Enqueue(A, 0, 3);
    process.Enqueue(B, 2, 6);
    process.Enqueue(C, 4, 4);
    process.Enqueue(D, 6, 5);
    process.Enqueue(E, 8, 2);
}

```

```

/*Queue process(5);
Queue service_time(5);
Queue turnaround_time(5);
ifstream fin;
fin.open("jobs.txt");
    if (!fin.fail()){
        return 1;
    }
char job;
int srvct, trnrndt;
while (!fin.eof()) {
    fin >> job >> srvct >> trnrndt;
    process.Enqueue(job);
    service_time.Enqueue(srvct);
    turnaround_time.Enqueue(trnrndt);
    cout << "Process: " << job << endl;
    cout << "service time: " << srvct << endl;
}
*/
system("pause>0");
}

```