

```
#include <iostream>
```

```
#include <queue>
```

```
#include <string>
```

```
using namespace std;
```

```
struct Job {
```

```
    int jobID;
```

```
    string jobDescription;
```

```
    Job(int id, string desc) : jobID(id), jobDescription(desc) {}
```

```
};
```

```
class JobQueue {
```

```
private:
```

```
    queue<Job> q;
```

```
public:
```

```
    void addJob(int id, string description) {
```

```
        Job newJob(id, description);
```

```
        q.push(newJob);
```

```
        cout << "Job added: " << description << " (ID: " << id << ")" << endl;
```

```
    }
```

```
    void deleteJob() {
```

```
        if (q.empty()) {
```

```
            cout << "Queue is empty. No job to delete." << endl;
```

```
        } else {
```

```
            Job job = q.front();
```

```
            q.pop();
```

```
            cout << "Job deleted: " << job.jobDescription << " (ID: " << job.jobID << ")" << endl;
```

```
        }
```

```

}

void displayJobs() {
    if (q.empty()) {
        cout << "Queue is empty." << endl;
    } else {
        queue<Job> temp = q;
        cout << "Current jobs in the queue:" << endl;
        while (!temp.empty()) {
            Job job = temp.front();
            temp.pop();
            cout << "Job ID: " << job.jobID << ", Description: " << job.jobDescription << endl;
        }
    }
}

};

```

```

int main() {
    JobQueue jq;
    int choice, id;
    string description;

    while (true) {
        cout << "\nJob Queue Menu:" << endl;
        cout << "1. Add Job" << endl;
        cout << "2. Delete Job" << endl;
        cout << "3. Display Jobs" << endl;
        cout << "4. Exit" << endl;
        cout << "Enter your choice: ";
        cin >> choice;

        switch (choice) {

```

case 1:

```
cout << "Enter job ID: ";  
  
cin >> id;  
  
cin.ignore(); // to ignore the newline character left by cin  
  
cout << "Enter job description: ";  
  
getline(cin, description);  
  
jq.addJob(id, description);  
  
break;
```

case 2:

```
jq.deleteJob();  
  
break;
```

case 3:

```
jq.displayJobs();  
  
break;
```

case 4:

```
cout << "Exiting program." << endl;  
  
return 0;
```

default:

```
cout << "Invalid choice. Please try again." << endl;
```

```
}
```

```
}
```

```
}
```