Queues are frequently used in computer programming, and a typical example is the creation of a job queue by an operating system. If the operating system does not use priorities, then the jobs are processed in the order they enter the system. Write C++ program for simulating job queue. Write functions to add job and delete job from queue.  
  
  
#include <iostream>

#include <queue>

#include <string>

using namespace std;

int main() {

queue<string> jobQueue; // Queue to store jobs

int choice;

string job;

do {

// Display menu

cout << "\nJob Queue Menu:\n";

cout << "1. Add Job\n";

cout << "2. Delete Job\n";

cout << "3. Display Jobs\n";

cout << "4. Exit\n";

cout << "Enter your choice: ";

cin >> choice;

switch (choice) {

case 1: {

// Add a job to the queue

cout << "Enter job name: ";

cin.ignore(); // Clear newline from input buffer

getline(cin, job);

jobQueue.push(job);

cout << "Job \"" << job << "\" added to the queue.\n";

break;

}

case 2: {

// Delete a job from the queue

if (jobQueue.empty()) {

cout << "No jobs to delete. The queue is empty.\n";

} else {

cout << "Job \"" << jobQueue.front() << "\" deleted from the queue.\n";

jobQueue.pop();

}

break;

}

case 3: {

// Display all jobs in the queue

if (jobQueue.empty()) {

cout << "The job queue is empty.\n";

} else {

cout << "Jobs in the queue:\n";

queue<string> tempQueue = jobQueue; // Copy to avoid modifying original queue

while (!tempQueue.empty()) {

cout << tempQueue.front() << endl;

tempQueue.pop();

}

}

break;

}

case 4:

cout << "Exiting program. Goodbye!\n";

break;

default:

cout << "Invalid choice. Please try again.\n";

}

} while (choice != 4);

return 0;

}