

CareerOne

A Comprehensive Job Search and Social Network Website

by Tianheng Wang (tw1701) & Weirong Shao (ws1352)

Introduction

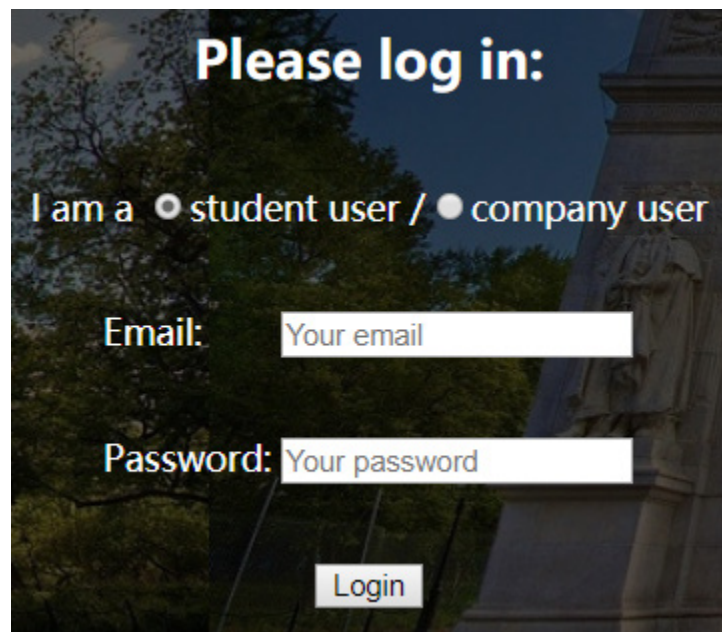
CareerOne is a website that provides employment-oriented service to students and companies, integrated with social networking features.

Once signed up, students can search and apply for jobs, follow companies, add other students to friend, and send messages with friends. Companies can view and reply job applications they received, post new jobs, search for matching applicants and push job announcements to them.

» Part I: User Manual «

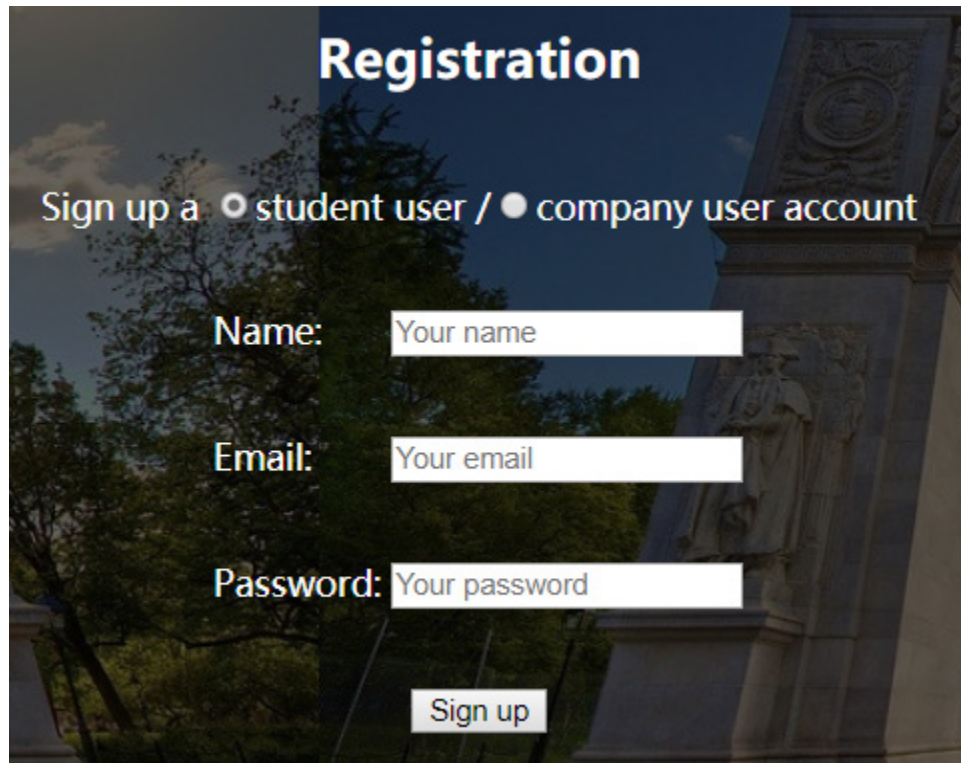
1. General Fundamentals

1.1 Log In

The image shows a login form for CareerOne. At the top, it says "Please log in:". Below that, there is a line "I am a" followed by two radio buttons. The first radio button is selected and is labeled "student user". The second radio button is labeled "company user". Below this, there are two input fields. The first is labeled "Email:" and contains the placeholder text "Your email". The second is labeled "Password:" and contains the placeholder text "Your password". At the bottom, there is a "Login" button. The background of the form is a dark, slightly blurred image of a building and trees.

You are asked to log in when you access to the main page. You can view the content and use the features of CareerOne only after you log in.

1.2 Sign Up



Registration

Sign up a ☐ student user / ☐ company user account

Name:

Email:

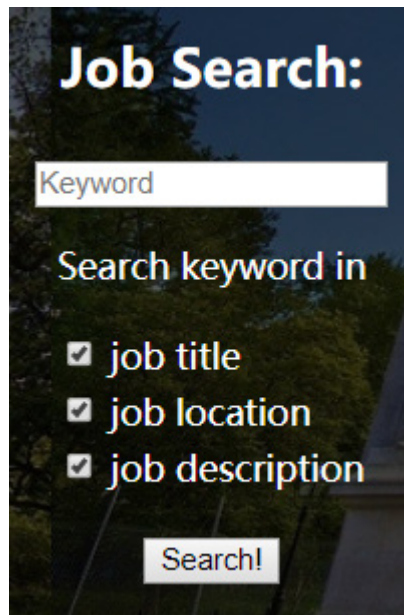
Password:

If you are new here, press “Sign up” at the right top (right of the navigation bar). Remember to select whether you are a student or a company user.

1.3 Log Out

Press “Log out” at the right of the navigation bar.

1.4 Job Search

A job search form with a dark background and a tree image. It features a title, a text input field, a label, three checkboxes, and a submit button.

Job Search:

Search keyword in

- ☒ job title
- ☒ job location
- ☒ job description

After sign up, you can use the core function of this website: job search, on the main page.

A table with a dark blue header and a light blue body. The header has four columns: Company, Job, Location, and Available. The body contains two rows of data, both with underlined links for the company and job names.

Results

Company	Job	Location	Available
Microsoft	Software Developer	NYC	Yes
Microsoft	Software Developer		Yes

You can view the company's page and the job's page in results.

1.5 Student's Page

Viktoria Phelps

Email	102@gmail.com
University	University of Pennsylvania
Degree	PhD
Major	Civil Engineering
GPA	3.37
Interests	
Qualifications	
Resume	

Add Friend?

Friends:

- [Sukhmani Pierce](#)

Followed companies:

- [Microsoft](#)

On a student's page, you can view his/her information (if he/she restricts access to their information, then GPA and resume are only visible to their friends and to those companies that he/she has applied to), friends and followed companies.

If you are logged in as a student user, you can send friendship request to him/her. If you are friends, you can send messages to him/her.


You two are friends

Send message:

1.6 Company's Page

On a company's page, you can view its information, followers and jobs, and choose to follow it.

1.7 Job's Page



The screenshot shows a job listing interface. At the top, the job title "Software Developer" is displayed in large white text. Below it is a table with job details. At the bottom, there is an "Apply Now?" section with a text input field containing the word "Application" and a "Confirm" button.

Job title: Software Developer	
Company	Microsoft
Location	NYC
Salary	
Required degree	BS, MS
Required major	Computer Science
Description	
Post time	2018-03-20 09:00:00
Available	Yes

Apply Now?

On a job's page, you can view its information and send application to the company.

2. Student User

Your navigation bar is like:



For any tab that has newly received notifications, there will be a golden number on it, as "Job notifications (2)" in the screenshot above.

Click your name to go to the student's page of you.

2.1 My Applications

My Applications						
	Company	Job Title	Text	Time	Result	Status
Sent to	Microsoft	Software Developer		2018-05-11 03:58:55		Read

You can view your previous job applications here, including whether the company has read, accepted or rejected your application (in column Status) and what the company has replied to you (in column Result).

2.2 Messages

Messages					
From	To	Text	Time	Status	
Dewi Holloway	Freja Booker	Great!	2018-05-11 05:39:39	Unread	<input type="text"/> Send
Dewi Holloway	Aasiyah O'Ryan	Shared a job: Software Developer	2018-05-11 05:32:11	Unread	<input type="text"/> Send
Aasiyah O'Ryan	Dewi Holloway	www	2018-05-10 20:53:42	Read	<input type="text"/> Reply
Freja Booker	Dewi Holloway	What's up	2018-05-10 20:50:46	Read	<input type="text"/> Reply

You can send or reply messages with your friends here by just enter your text in the box after a row and click “Send” (to additionally send this message to the receiver) or “Reply”.

To start a new chat to a friend (you two have not sent messages to each other), see [1.5 Student's Page](#).

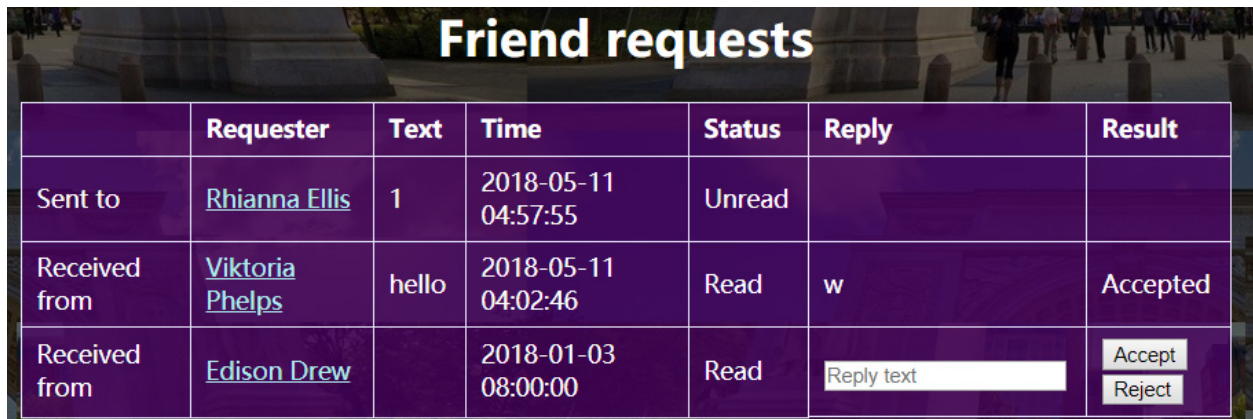
To forward a job to your friend, copy the link of the job page and send. Such message will be automatically detected as a “shared job” and be shown with link, as the 2nd row in the screenshot.

2.3 Job Notifications

You can view job notifications pushed by companies to you here. Click the job title to go to the job's page.

2.4 Friends

You can view all your friends here.



The screenshot shows a 'Friend requests' section with a table of requests. The table has columns for Requester, Text, Time, Status, Reply, and Result. The first row shows a request sent to Rhianna Ellis. The second row shows a request received from Viktoria Phelps. The third row shows a request received from Edison Drew with a reply text input field and 'Accept'/'Reject' buttons.

	Requester	Text	Time	Status	Reply	Result
Sent to	Rhianna Ellis	1	2018-05-11 04:57:55	Unread		
Received from	Viktoria Phelps	hello	2018-05-11 04:02:46	Read	w	Accepted
Received from	Edison Drew		2018-01-03 08:00:00	Read	<input type="text" value="Reply text"/>	<div>Accept</div> <div>Reject</div>

You can also view friend requests you have sent or received and their status, and accept or reject friend requests you received.

2.5 Edit My Profile

You can update your profile here.

3. Company User

Your navigation bar is like:

Home	My jobs	Received Applications	Post new job	Push job announcements	Microsoft	Edit my profile	Log out
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3.1 My jobs

My Jobs					
Title	Location	Salary	Post Time	Available	
Software Developer	NYC		2018-03-20 09:00:00	Yes	Edit
Software Developer			2018-04-20 09:00:00	Yes	Edit
Data Scientist			2018-04-20 09:00:00	Yes	Edit
SDE			2018-05-11 14:04:51	Yes	Edit

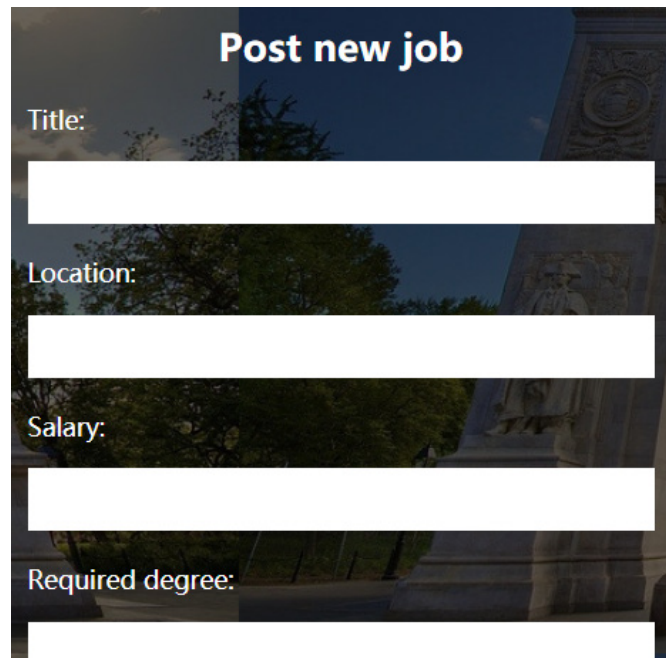
You can view all jobs your post and edit them.

3.2 Received Applications

Applicants						
Time	Student	Job	Application	Status	Reply	Result
2018-05-11 03:58:55	Dewi Holloway	Software Developer		Read	<input type="text" value="Reply text"/>	Accept Reject

You can view applications received with links to applicants' page, and accept or reject applications.

3.3 Post new Job



Post new job

Title:

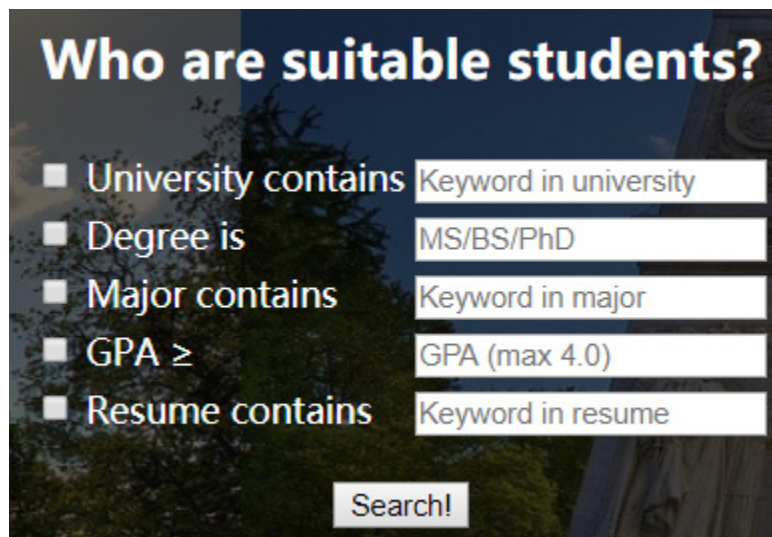
Location:

Salary:

Required degree:

You can post a new job here.

3.4 Push Job Announcements



Who are suitable students?

<input type="checkbox"/> University contains	<input type="text" value="Keyword in university"/>
<input type="checkbox"/> Degree is	<input type="text" value="MS/BS/PhD"/>
<input type="checkbox"/> Major contains	<input type="text" value="Keyword in major"/>
<input type="checkbox"/> GPA \geq	<input type="text" value="GPA (max 4.0)"/>
<input type="checkbox"/> Resume contains	<input type="text" value="Keyword in resume"/>

First, enter criteria to search for suitable students of the job announcements you want to push.

The screenshot displays a web interface with a background image of a university campus. At the top, the word "Results" is centered in a large, bold, white font. Below it is a table with five columns: Name, University, Degree, Major, and GPA. The table contains two rows of data. The first row lists "Dewi Holloway" from "New York University" with a "MS" degree in "Computer Engineering" and a GPA of "3.76". The second row lists "eee" with a GPA of "3.70". Below the table, a text message states "Selected the job to push announcements to students above." At the bottom of the screenshot is another table with three columns: Job ID, Title, and an unlabeled column. The first row shows "1001" for "Software Developer" with a button labeled "Push announcements of this job". The second row shows "1002" for "Software Developer" with a button labeled "Push announcements of this job".

Name	University	Degree	Major	GPA
Dewi Holloway	New York University	MS	Computer Engineering	3.76
eee				3.70

Selected the job to push announcements to students above.

Job ID	Title	
1001	Software Developer	Push announcements of this job
1002	Software Developer	Push announcements of this job

Then, all qualified students are listed above. Click “Push announcements of this job” to push to all listed students.

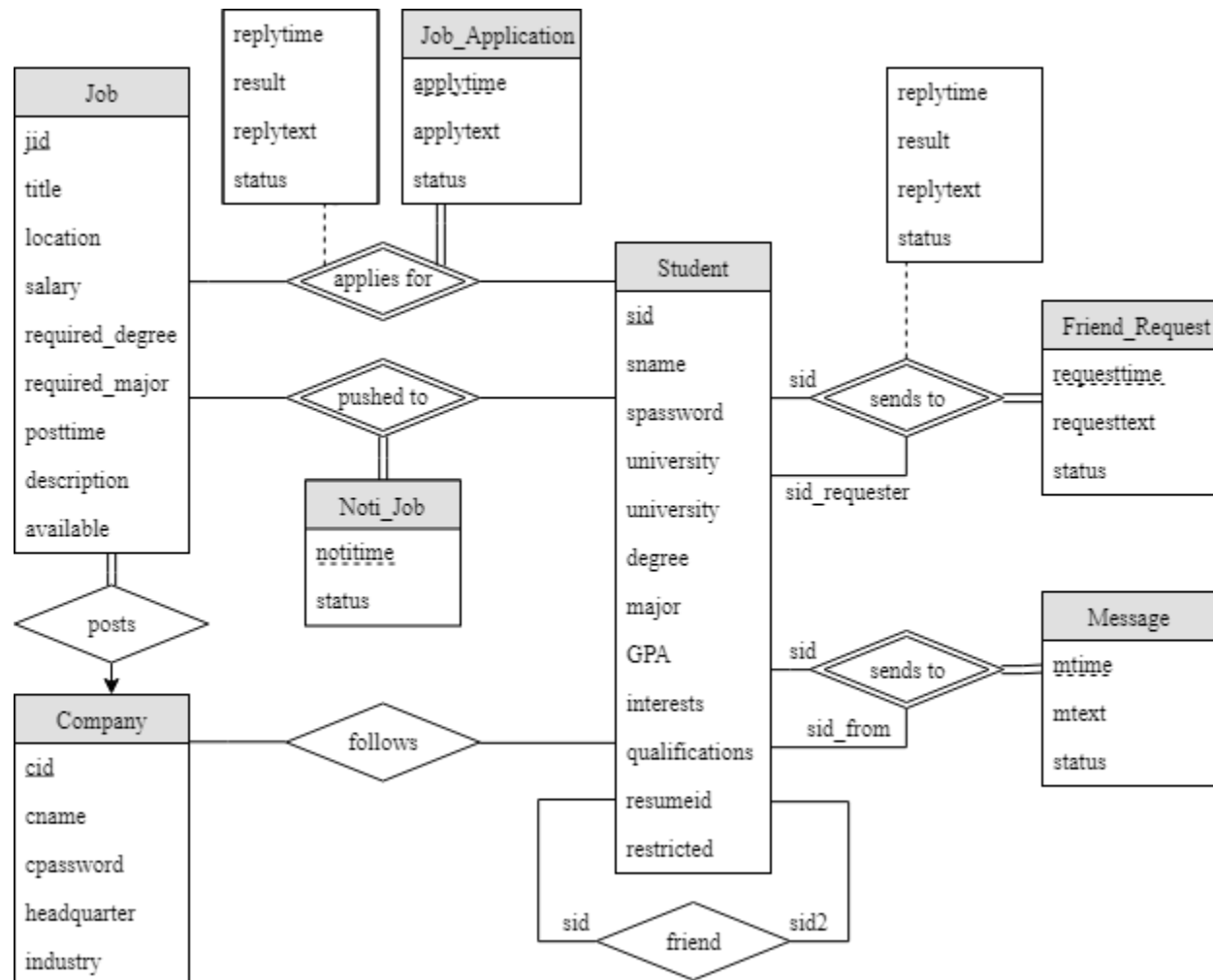
3.5 Edit My Profile

You can update your profile here.

» Part II: Database «

4. Database Design

4.1 ER Diagram



4.2 Description of Tables

Table1	Student(<u>sid</u> , sname, spassword, university, degree, major, GPA, interests, qualifications, resume, restricted)
Description	<p>Table of students.</p> <ul style="list-style-type: none">• <i>sid</i> is assigned to each student separately.• <i>sname</i> and <i>spassword</i> is stored when a student signs up.• <i>university</i>, <i>degree</i>, <i>major</i>, <i>GPA</i>, <i>interests</i>, <i>qualifications</i> and <i>resume</i> are some basic information of a student.• <i>restricted</i> is whether the student restrict the access to his/her information (say, their GPA and resume) by all students and companies. If <i>restricted</i> is TRUE, then his/her information is only visible to his/her friends and to those companies that he/she have applied to.
Table2	Friend(<u>sid</u> , <u>sid2</u>)
Description	<p>Table of friendship.</p> <ul style="list-style-type: none">• <i>sid</i> and <i>sid2</i> are both the foreign key of <i>sid</i> in table <i>Student</i>, indicating that <i>sid</i> and <i>sid2</i> are friends. <p>They should be stored in pair since friendship is a mutual relation, i.e. if (101, 102) is in the table, then (102, 101) should be also in the table.</p>
Table3	Friend_Request(<u>requesttime</u> , <u>sid</u> , <u>sid_requester</u> , requesttext, status)
Description	<p>Table of friendship requests.</p> <p>Since it is a system like Facebook and LinkedIn, users need to send request when they want to add someone else to be friend.</p> <ul style="list-style-type: none">• <i>requesttime</i> is the time when the user sends the request.• <i>sid</i> is identification of the recipient (student who is receiving the request).• <i>sid_requester</i> is identification of the student who has sent the request.• <i>requesttext</i> is the content of the request.• <i>status</i> is how the request is shown on recipient's screen. It can be Unread (the recipient has not read the request, so there will be a notification), Read (the recipient has read, so there will be selections: accept or reject).

Table4	Friend_Req_Reply(<u>requesttime</u> , <u>sid</u> , <u>sid_replier</u> , replytime, result, replytext, status)
Description	<p>Table of replies to friendship requests, corresponding to table <i>Friend_Req_Reply</i>.</p> <ul style="list-style-type: none"> • <i>sid</i> is <i>sid_requester</i> in <i>Friend_Req_Reply</i>, and <i>sid_replier</i> is <i>sid</i> in <i>Friend_Req_Reply</i>. • <i>replytime</i> is the time when the user replies the request. • <i>result</i> is whether the user accepts the request or not. It can be Accepted or Rejected. • <i>replytext</i> is the content of the reply (e.g. reason of rejection). • <i>status</i> is whether there will be a notification of this reply on friendship requester's screen. It can be Unread or Read like <i>status</i> in <i>Friend_Request</i>.
Table5	Company(<u>cid</u> , cname, cpassword, headquarter, industry)
Description	<p>Table of companies.</p> <ul style="list-style-type: none"> • <i>cid</i> is assigned to each company separately. • <i>cname</i> and <i>cpassword</i> is stored when a company signs up. • <i>headquarter</i> and <i>industry</i> are some basic information of a company.
Table6	Following(<u>sid</u> , <u>cid</u>)
Description	<p>Table of students following companies. Students would like to be notified of any new job announcements of companies they are interested in. Therefore, they can find positions by following a companies.</p> <ul style="list-style-type: none"> • <i>sid</i> is the identification of a student. • <i>cid</i> is the identification of a company the student is following.
Table7	Job(<u>jid</u> , cid, title, location, salary, required_degree, required_major, posttime, description, available)
Description	<p>Table of jobs.</p> <ul style="list-style-type: none"> • This table contains some basic information about jobs such as the company identification, the job location, the job title, the salary, and the required academic background. • <i>required_degree</i> and <i>required_major</i> are the academic

	<p>background required by a job position.</p> <ul style="list-style-type: none"> • <i>description</i> is a longer textual description of the position. • <i>posttime</i> is the time when the company posts the job position on the website. • <i>available</i>: Students can check whether the job position that they are interested in is still available or not.
Table8	Job_Application(<u>applytime</u> , <u>sid</u> , <u>jid</u> , applytext, status)
Description	<p>Table of job applications.</p> <ul style="list-style-type: none"> • <i>applytime</i> is the time when the student applies for a job. • <i>sid</i> is identification of the applicant. • <i>jid</i> is the job being applied for. • <i>applytext</i> is the additional information of an application (maybe cover letter). • <i>status</i> is how the application is shown on a company user's screen. It can be Unread, Read like <i>status</i> in <i>Friend_Request</i>.
Table9	Job_App_Reply(<u>applytime</u> , <u>jid</u> , <u>sid</u> , replytime, result, replytext, status)
Description	<p>Table of replies to job applications, corresponding to table <i>Job_Application</i>.</p> <ul style="list-style-type: none"> • <i>replytime</i> is the time when the company replies the application. • <i>result</i> is whether the company decide to reject the application or not. It can be Accepted (this only means that the company wants to move this application forward, i.e. to interview the student) or Rejected. • <i>replytext</i> is the content of the reply (e.g. interview plan or reason of rejection). • <i>status</i> is whether there will be a notification of this reply on the applicant's screen. It can be Unread or Read like <i>status</i> in <i>Friend_Req_Reply</i>.
Table10	Message(<u>sid</u> , <u>sid_from</u> , <u>mtime</u> , mtext, status)
Description	<p>This table offers the function for student to send message to their friends.</p> <ul style="list-style-type: none"> • <i>sid</i> is the receiver of the message.

	<ul style="list-style-type: none"> ● <i>sid_from</i> is the sender of the message. ● <i>mtime</i> is the time when the message is sent. ● <i>mtext</i> is the content of the message. ● <i>status</i> is whether there will be a notification of this reply on the receiver's screen. It can be Unread or Read like <i>status</i> in <i>Friend_Req_Reply</i>.
Table11	Noti_Job(<u>sid</u> , <u>jid</u> , <u>notitime</u> , status)
Description	<p>Table of new job announcements and job announcements pushed by the company.</p> <ul style="list-style-type: none"> ● <i>sid</i> is the receiver of the announcement. ● <i>jid</i> is the company of the job. ● <i>notitime</i> is the time when the announcement is sent. ● <i>status</i> is whether there will be a notification of this reply on the receiver's screen. It can be Unread or Read like <i>status</i> in <i>Friend_Req_Reply</i>.
Table12	Noti_Job_Fwd(<u>sid</u> , <u>sid_from</u> , <u>jid</u> , <u>notitime</u> , status)
Description	<p>Table of job announcements forwarded by other students.</p> <ul style="list-style-type: none"> ● <i>sid</i> is the receiver of the announcement. ● <i>jid</i> is the sender (student who forward) of the announcement. ● <i>notitime</i> is the time when the announcement is sent. ● <i>status</i> is whether there will be a notification of this reply on the receiver's screen. It can be Unread or Read like <i>status</i> in <i>Friend_Req_Reply</i>.

Note: Table Job_Noti_Fwd in Project 1 was discarded.

4.3 Foreign keys

Foreign Key	Referencing
Friend.sid	Student.sid
Friend.sid2	Student.sid
Friend_Request.sid	Student.sid
Friend_Request.sid_requester	Student.sid
Friend_Req_Reply.requesttime	Friend_Request.requesttime
Friend_Req_Reply.sid	Friend_Request.sid_requester
Friend_Req_Reply.sid_replier	Friend_Request.fid
Following.sid	Student.sid
Following.cid	Company.cid
Job.cid	Company.cid
Job_Application.sid	Student.sid
Job_Application.jid	Job.jid
Job_App_Reply.applytime	Job_Application.applytime
Job_App_Reply.jid	Job_Application.jid
Job_App_Reply.sid	Job_Application.sid
Message.sid	Student.sid
Message.sid_from	Student.sid
Noti_Job.sid	Student.sid
Noti_Job.jid	Job.jid

5. Database Implementation

We are using MySQL for this project.

5.1 Table Creating

See file `create_tables.sql` in the folder SQLs.

5.2 Sample Data

See file `insert_sample_data.sql` in the folder SQLs.

» Part III: Website «

6. Website Design

6.1 Description of Pages

Filename	Implements
<code>index.php</code>	1.1 Log In and 1.4 Job Search
<code>login_result.php</code>	1.1 Log In , result page
<code>signup.php</code>	1.2 Sign Up
<code>signup_result.php</code>	1.2 Sign Up , result page
<code>includes/logout.inc.php</code>	1.3 Log Out
<code>search_result.php</code>	1.4 Job Search , result page
<code>student.php</code>	1.5 Student's Page
<code>company.php</code> <code>includes/follow.inc.php</code>	1.6 Company's Page Manage submission of following
<code>job.php</code>	1.7 Job's Page

Filename	Implements
s_application.php	2.1 My Applications
s_message.php	2.2 Messages
s_jobnoti.php	2.3 Job Notifications
s_friend.php	2.4 Friends
s_profile.php includes/sprofile.inc.php	2.5 Edit My Profile Manage submission of editing
c_job.php c_job_edit.php includes/c_job_edit.inc.php	3.1 My jobs Job editing page Manage submission of job editing
c_application.php	3.2 Received Applications
c_postjob.php c_postjob_result.php	3.3 Post new Job 3.3 Post new Job , result page
c_pushjob.php c_pushjob_result.php c_pushjob_result_result.php	3.4 Push Job Announcements , page 1 3.4 Push Job Announcements , page 2 3.4 , result page
c_profile.php includes/cprofile.inc.php	3.5 Edit My Profile Manage submission of editing
includes/header.php	The navigation bar
includes/footer.php	Author's information
includes/dbh.inc.php includes/logincheck.inc.php	Connection to database Checking login. See 6.2 Access Rights
logout_result.php	Discarded

6.2 Access Rights

Visitors (not logged in) can only visit the main page and sign up page, otherwise they will be redirected to the main page. This is implemented in `includes/logincheck.inc.php`.

All pages starting with “s_” in their file names serve features for students, and can only be visited by student users. All pages starting with “c_” in their file names serve features for companies, and can only be visited by company users.

Students’ GPA and resume are only visible to their friends and to those companies that he/she has applied to if he/she restricts access. See [1.5 Student’s Page](#).

6.3 User Interface Design

We choose purple as the main color. A variation colors including violet, lavender and indigo are also used.

We choose a transparent photo of Washington Square Arch (nyu.jpg) as the background, and white as the color of text.

7. Website Implementation

We are using WampServer as our server (an Apache server) for this project.

All pages/.php files can be found in the folder and in includes/.