MCI project   Second Milestone Report

Team number: 13
Project Title: Demo Court

Milestone 2	Activities	Planned Outputs	Achieved Outputs
Restate the milestone from your Draft plan .	Restate the key activities from your draft plan.	Restate the planned outputs from your draft work plan.	Outline the actual outputs compared to what was projected (or type "same as planned")
1. Uploading and displaying the employment information of companies 2. Staring videos and Ranking videos	Develop the pages of consisting the company's information and employment information	The page show companies' information, offered positions and contact information	Same as planned. In the company page, we also developed three buttons for reviewing, updating and deleting jobs. At the same time, we designed a page in which users can edit the job information they have posted. In the company page, users can also click the upload button to enter the upload page to post a job.
	Design a collection for storing company's information in database	The information of companies can be stored in this database.	Same as planned
	Displaying the information of companies on the web page	The employment information uploaded by companies can be displayed on the website.	We developed a page that shows all the jobs that company has uploaded. We have also developed another page to show the specific information of a job, and we also show the related jobs to this page.
	Develop watching video page	The page plays a video	Same as planned
	Develop the function of liking a video	Users can give a star to a video that they like	We developed a real-time like function in the video page. Users can like and unlike a video. At the same time, videos that users have liked will be saved to the user's personal page.
	Develop manage videos page	The manage videos page allows members to edit, delete videos	Same as planned
	Design video sorting algorithm	Videos uploaded by users can be sorted according the popularity	We selected the most popular videos based on the number of likes of the user's video and the upload time.
	Design a collection in database for sorted videos	The information of sorted videos can be stored in this collection, which can improve the efficiency of finding videos from the database.	We set a threshold for the ranked video collection .When a video's likes exceed this threshold, it will be moved into this collection.
	Displaying sorted videos to home page	Popular videos will be displayed on the main page	We not only show the most popular videos to the homepage, but we also categorize the videos and show the videos that are popular in each type to the homepage.

	Resume Upload function	This feature was not written in milestone2 plan.	Users can upload resumes and preview their resumes at the time of upload. The uploaded resume will be dynamically displayed to the personal homepage.
	Searching Videos and Jobs	This feature was not written in milestone2 plan.	Users can search for videos on the website homepage and personal homepage, and users can also search for jobs on the job list page.
	Real-time communication in the video play page	This feature was not written in milestone2 plan.	In the video play page, user can communicate with people who is watching the same video.
Team reflection on progress	Provide some comments below regarding the completion of this milestone specifically around: 1. How is the project progressing? 2. Are there any differences between projected and actual outputs/outcomes?		

We have completed all the features in milestone2. The functions implemented in milestone 2 basically achieved the results we expected. In our opinion, we have done more work and done better than milestone1. I think the main reason is that we have strengthened the communication between the team members, for example, we have at least three intra-group meetings per week. In this way, we are able to report on the progress of each of us and the problems encountered. Because after milestone1, we found that the communication between the front end and the back end is very important, because sometimes the design of the front end cannot match the logic of the back end if the communication is insufficient. . During the development of milestone2, our group also thought of some new features such as resume upload function and real-time talk function, we also added these features to our website.

Student ID: a1730464

Explain what has been your contribution to the second milestone and what have you learned from the second iteration.

Have you have any problems, If so, how have you managed them?

As frontend developer in this project, I have designed and developed the rest pages of our project such as pages for playing video, ranking videos, and pages for posting jobs, managing jobs, and managing information of employers on our website. Besides, I have fixed some bugs and have edited user interfaces in our website being more easy and familiar to use to users.
From the second iteration, I have been getting more familiar with the tools and languages that I used for my part. From then implementing and deploying tasks have become faster and more accurate. I have learned developing tasks as well as our project based on iterations produce outputs faster. In addition, some requirements or changes added haven't been affected too much to our project.

There are some problems that I have encountered at this stage. They are some changes in user interfaces that make our website getting familiar and easy to users. The way that I used to manage them is by applying Agile model in my part. In particular, I just keep going and develop user interface based on requirements to delivery outputs and then continue developing, editing and testing them to produce the final version as good as possible. In addition, as I have been working as in a team with other members in the project, I have shown UI to them and asked for some advice from them to make changes better.

Individual reflection on project completion

Looking at your current progress, evaluate how close you are to complete project goals and/or extension. Briefly describe your plan to complete the project in weeks 11/12

Based on the outputs from the second milestone of our project, I have completed all project goals. My plan to complete the project in weeks 11 and 12 are fixing some bugs and do testing the whole project to guarantee our project meeting all requirements and running stable.

Student ID   a1715378

Explain what has been your contribution to the second milestone and what have you learned from the second iteration.

Have you have any problems, If so, how have you managed them?

The contribution to the second milestone :
1. The logic of the backend about the video play page, including playing a single video on the page and displaying the author's other videos to the current play page.
2. Back-end logic implementation of video search function
3. The back-end logic implementation of the video classification function, which classifies and displays the video to the home page based on the name and description of the video.
4. The front-end and backend logic implementation of the video real-time like function
5. I added a real-time discussion feature to the video playback page. I implemented the front end and backend of this part.
6. I implemented the video sharing function, including sharing videos to face book and twitter.
7. The front-end and backend implementation of the user resume upload function, including the resume preview when uploading and the dynamic display of the resume on the personal page.
8. Back-end logic implementation of job search function
9. The frontend and backend implementation of pagination function
10. The back-end logic for sorting videos and building the new collection for sorting videos in database.
11. I implemented the backend logic for posting a job, deleting and modifying jobs on the personal page, saving the uploaded job to the company's homepage, and showing posted jobs to the job list page.
12. I completed the design of all data models in milestone2 and related database operations.
13. I also helped front-end team members write front-end logic on the front-end page to ensure fast connection between front and back ends, improving project efficiency.

What have I learned from the second iteration:
1. In the process of developing real-time praise and real-time discussion functions, I learned how to use the pusher to develop real-time functions on the website. Pusher is a hosted service that makes it super-easy to add real-time data and functionality to web and mobile applications
2. When developing the resume upload function, I learned how to display pdf files in html files. At the same time, in order to realize the preview of pdf and dynamic display, I learned some knowledge about pdf.js.
3. In the process of developing video sharing, I learned how to use the interface provided by face book and twitter to develop sharing functions for websites.
4. I learned how to use the Mongodb API to design back-end logic for pagination.
5. When designing the video sorting algorithm, I learned how to sort data using Mongodb.
6. In Milestone2, I did more development work, so I got a better idea of the use of NodeJS and the Express framework. More database operations also make me more proficient in the use of Mongodb. At the same time, I also realized that use of NPM package can improve the development efficiency of the website.

The problem I have encountered:
     The biggest problem I encountered was the unfamiliarity with the development of the website. Because I was doing the project development for the first time, I didn't know enough about the implementation of the backend logic of the website development, such as paging function, search function and file upload function. So I found some video about Nodejs website development to learn some function development logic. At the same time, I also found some excellent projects developed by Nodejs and Mongodb on github to learn.

Individual reflection on project completion	Looking at your current progress, evaluate how close you are to complete project goals and/or extension. Briefly describe your plan to complete the project in weeks 11/12

I think our group has done a good job of the features in the milestone2 project. In the first phase of milestone2, because video is the main content of our website, we developed the pre-functions mainly on video, including video sorting, video sorting, video likes and real-time discussion. In the milestone2 phase, we started the development of company recruitment related features. In the process, we have a good discussion about whether our development focus should be on the company or the job. Finally, we made a job list page instead of the company list page. I think our group has a good communication in milestone2, so we can find bugs and problems in the website in time.

In the eleventh and twelfth weeks, I will continue to optimize some of the features of the site, such as the search functionality on the site. At the same time, I also plan to add a work save function, which means that the user can save the work that he is interested in. I will also help front-end teammates optimize the website interface to ensure a more user-friendly interface. Finally, I will complete my final report and complete the poster with the team member.

Student ID   a1729584

Individual reflection on progress	Explain what has been your contribution to the second milestone and what have you learned from the second iteration. Have you have any problems, If so, how have you managed them?

In milestone2, my main task was to fulfil the function of Posting posts on the platform of the company users. Through learning nodeJS language and express framework, and then communicating and learning with back-end development members, I completed the task in two stages. The another work is finalizing the database design and applying it to back-end development. So, for achieve the first task, I have learned the nodeJS language and learned about the development work under the express framework, then I complete the online job Posting function of the company as a registered user. Otherwise, Complete personal documents, record and help the team to arrange meeting minutes and agenda are my task 3. After those kind of tasks, testing the products online and troubleshoot some bugs, and actually make final changes to the database design are finished. Also, the task of complete and debug the assigned back-end programming (the function for the company to release job information) was accomplished.

In the above tasks, I encountered a problem that I was unfamiliar with programming languages. Because I joined in the development of back-end logic after milestone1, I encountered some problems in the process of learning nodeJS. For example, although the language is similar to Java, I had to read the code that my peers had already written, so at first it was very difficult for me to work on it. In response to the above two points, I took measures to learn basic operation instructions through the paid online courses recommended by peers, and then get familiar with the existing codes through communication with peers and other practitioners. Finally, in the end, with the help of the team members and some guidance, I completed my code task.

To sum up, I have learned the following skills through the development of the project milestone. First, through the development of some functions, I have a systematic understanding of nodeJS and have learned some skills of developing with nodeJS. Secondly, the biggest benefit I gained from this project is that I learned how to cooperate with the team and develop collaboratively. Actually, in the process of the project, I had a lot of time to promote my own work, very anxious. But this time, teammates can always give you good advice and help, for example, tell me which platform development course is very good, which website open class more effective. I got a lot of help from it. Finally, through my work in milestone2, I realized that specification writing of code is extremely important, because for a team, specification of code will save a lot of time for team members to read the code. Otherwise, it's hard for any programmer to fit into a development team.

Individual reflection on project completion	Looking at your current progress, evaluate how close you are to complete project goals and/or extension. Briefly describe your plan to complete the project in weeks 11/12
	With respect to the current project schedule, we have basically completed the development of the project. Working with my teammates to adjust some of the logic and further improve the front end will be the key to my next work. Secondly, preparing the final oral presentation is also a very important task, because it is also very important for a good project to let others know its benefits. Last but not least, in the following work, the completion of the report is crucial, because it is a description of the whole project and a symbol of the completion of a project.