**CS673 Software Engineering**

**Team 5 : CVCoach**

**Meeting Minutes**

All meeting minutes are kept in this single document. The latest meeting minutes should be at the beginning of the document. For example, meeting 3 minutes is placed before meeting 2 in the document. The team leader should prepare a basic agenda for the meeting and team members should rotate to be the minutes taker. Each group should have at least one meeting per week, and you may have multiple meetings if needed.

#### **Meeting 12**

* **Date and Time**: November 14, 2024, 3:21 PM
* **Place**: 1010 Commonwealth Ave, Room 314
* **Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao, Haochen Sun
* **Minutes Taker**: Zihan Zhou
* **Timekeeper**: Zihan Zhou
* **Purpose**: Continue refining session handling, API adjustments, and backend setup for project stability.

#### **Agenda:**

1. Review session management and cookie-based storage for user data.
2. Update on data extraction and question recommendation API.
3. Deployment and domain usage verification.

#### **Discussions:**

* **Session Management**: The team discussed refining session handling, exploring the use of cookies for storing session IDs securely. Linchen Xu plans to evaluate options for storing user sessions.
* **API Development**: Zhen Cao reported on progress with the question-answering and recommendation APIs, with plans to create endpoints for interview question recommendations.
* **Data Extraction**: Zihan Zhou is working on constructing a dataset for semantic embedding, which will be sent to the language model for further processing.
* **Deployment and Domain Setup**: Lin Ma updated the team on the backend deployment, noting connectivity issues on Google Cloud. Efforts to integrate with the domain are ongoing.

#### **Key Decisions:**

1. Proceed with cookie-based session management if feasible, to streamline user experience.
2. Finalize APIs for question recommendations and test functionality on the client side.
3. Address backend connectivity issues for stable deployment by next week.

#### **Action Items:**

1. Linchen Xu to append AccessToken in Header.
2. Zhen Cao to complete question recommendation API and ensure proper functionality.
3. Zihan Zhou to finish dataset construction and begin data embedding.

#### **Meeting 11**

**Date and Time**: November 7, 2024, 3:39 PM

**Place**: 1010 Commonwealth Ave, Room 314

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao, Haochen Sun

**Minutes Taker**: Zhen Cao

**Timekeeper**: Zhen Cao

**Purpose**: Discuss API optimization, session handling, integration testing, and deployment.

#### **Agenda:**

1. Updates on API adjustments and session management.
2. Deployment status on Google Cloud.
3. Documentation and presentation preparation.

#### **Discussions:**

* **API and Session Management**: Linchen Xu updated the API to include session handling and discussed improvements in passing tokens through headers. Plans were made to test and refine this session approach by adding secure tokens and user ID storage in cookies.
* **Deployment Challenges**: Lin Ma shared issues faced in deploying on Google Cloud, specifically backend connection errors. Despite successful setup, requests from the frontend could not connect to the backend. Debugging will continue to ensure stable deployment.
* **Testing and Documentation**: Zhen Cao worked on expanding unit tests and integration tests, including code coverage displayed on the README. The team discussed adding job and question recommendations to enhance user experience.
* **Job Recommendation Functionality**: Plans were made to utilize the score-based matching system to retrieve the most relevant job descriptions from the database based on resume keywords and scores.

#### **Key Decisions:**

1. Continue refining session handling and token-based authentication for secure user interactions.
2. Resolve backend connectivity issues in the Google Cloud deployment.
3. Implement job recommendation based on scored matches in the database.

#### **Action Items:**

1. Linchen Xu to finalize session handling with secure tokens in headers.
2. Lin Ma to troubleshoot and stabilize the backend deployment on Google Cloud.
3. Zihan Zhou to complete integration testing and prepare job recommendation features.
4. Zhen Cao to implement answering user’s questions feature.

#### **Meeting 10**

**Date and Time**: October 31, 2024, 3:30 PM

**Place**: Zoom meeting

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao.

**Minutes Taker**: Lin Ma

**Timekeeper**: Lin Ma

**Purpose**: Finalize tasks for the upcoming presentation and review progress on various project components, including feedback on resume against job descriptions and frontend API integrations.

#### **Agenda:**

1. Final preparations for the project presentation.
2. Review of task assignments and progress.
3. Discussion on the complement of Dockerfile.

#### **Discussions:**

1. **Presentation Preparation**: Emphasized the need to finalize all materials for the upcoming presentation, with specific roles assigned to each team member to cover the development to deployment phases.
2. **Dockerfile complement**: Reviewed the upcoming deadlines, emphasized the importance of completing Dockerfile for future Lab3 and the end of iteration 2.

#### **Key Decisions:**

1. All team members finalize their presentation parts by the end of this week.
2. Resolve all pending issues in iteration 2.
3. Complete the Dockerfile for the Lab 3 and final presentation.
4. Test the performance of new evaluation techniques.

#### **Action Items:**

1. Lin Ma to complete the Dockerfile.
2. Lichen Xu to finish login API integration and design prompts for interview question suggestions.
3. Zihan Zhou to complete the backend integration of login functionality.
4. All team members rehearse their parts for the upcoming presentation to ensure smooth delivery.

#### **Meeting 9**

**Date and Time**: October 24, 2024, 3:30 PM

**Place**: 1010 Commonwealth Ave, Room 314

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao

**Minutes Taker**: Linchen Xu

**Timekeeper**: Linchen Xu

**Purpose**: Finalize API integration, refine models, and align on the remaining deliverables within project timelines.

#### **Agenda:**

1. Review of login API and question-answering API progress.
2. Status on new model research and integration.
3. Finalization of pipeline setup for automated testing.

#### **Discussions:**

1. **API Progress**: The login API is operational using user IDs, but the display of user names remains unresolved. The question-answering API is ready for final testing and deployment.
2. **Model Research**: The team continues to explore suitable models for job description matching. Discussion revolved around prompt engineering and the use of fine-tuned models to improve matching performance.
3. **Database and Pipeline Setup**: Plans to reconfigure the database and complete integration with the pipeline by the next meeting. The goal is to ensure backend and frontend systems run smoothly in local and cloud environments.
4. **Automated Testing**: Focus on ensuring the CI/CD pipeline can execute tests across environments. Discussion emphasized the need to capture logs and screenshots to validate test results.

#### **Key Decisions:**

1. Proceed with the current login API implementation using user IDs.
2. Finalize the new model selection and prompt strategy by the next meeting.
3. Ensure the CI/CD pipeline works seamlessly for testing and deployment.

#### **Action Items:**

1. Linchen Xu to push the login and ask question API codes for testing.
2. Linchen Xu to provide prompts for interview question suggestions.
3. Zihan Zhou and Zhen Cao to complete resume evaluation with JD.
4. Lin ma to update docker file to support backend deployment and auto testing.

#### **Meeting 8**

**Date and Time**: October 17, 2024, 3:41 PM

**Place**: 1010 Commonwealth Ave, Room 314

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao

**Minutes Taker**: Linchen Xu

**Timekeeper**: Linchen Xu

**Purpose**: Review recent developments in iteration 1, and discuss the plan for iteration 2.

#### **Agenda:**

1. Review recent developments in iteration 1.
2. Discuss the plan for iteration 2.

#### **Discussions:**

* **Authentication and APIs**: Discussed finalizing the Google authentication button and resolving existing permission issues. Efforts to complete the integration of two APIs were highlighted, with the team expressing readiness for further testing.
* **CD Pipeline**: Progress in automating the deployment of Docker images and their management on Google Cloud was reviewed. A new domain was purchased to support the project, enhancing the public accessibility of the project.
* **Modeling and Data Retrieval**: Explored potential changes in the project's approach to matching job descriptions with resumes, considering the use of new modeling techniques. The need for fine-tuning models and scraping additional data was discussed, emphasizing the urgency due to project timelines.

#### **Key Decisions:**

1. Proceed with the current authentication solution while continuing to resolve existing issues.
2. Implement the automated CD pipeline as detailed, ensuring all components are operational by the next week.
3. Evaluate new modeling techniques for job description matching and initiate data scraping for additional inputs needed for model training.

#### **Action Items:**

1. Linchen Xu to finalize the integration of the Google authentication button and ensure all API functionalities are tested.
2. Linchen Xu and Lin Ma to support backend members in the future.
3. Zihan Zhou to lead the effort in modeling adjustments and data retrieval.

#### **Meeting 7**

**Date and Time**: October 10, 2024, 3:27 PM

**Place**: 1010 Commonwealth Ave, Room 314

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao. Haochen Sun is absent for surgery.

**Minutes Taker**: Linchen Xu

**Timekeeper**: Linchen Xu

**Purpose**: Finalize tasks for the upcoming presentation and review progress on various project components, including API deployment and Google authentication services.

#### **Agenda:**

1. Final preparations for the project presentation.
2. Review of task assignments and progress on Google authentication services.
3. Discussion on the deployment of Docker images and Google Cloud services.

#### **Discussions:**

1. **Presentation Preparation**: Emphasized the need to finalize all materials for the upcoming presentation, with specific roles assigned to each team member to cover the development to deployment phases.
2. **Google Authentication Services**: Reviewed issues with the Google authentication service, including problems with permissions and user access, and plans to resolve these by the next meeting.
3. **API and Docker Deployment**: Discussed the deployment of Docker images via Google Cloud services, and the setup of a new Google Cloud account for project needs. The accessibility of services via IP and port was confirmed.

#### **Key Decisions:**

1. All team members finalize their presentation parts by the end of this week.
2. Resolve all pending issues with Google authentication services to ensure seamless user experience.
3. Continue with the deployment of Docker images and ensure all backend services are ready for the final presentation.

#### **Action Items:**

1. Lin Ma to prepare the recording for the next presentation and ensure all materials are ready.
2. Lichen Xu to resolve the issues with Google authentication services and finalize the API configurations.
3. Lin Ma to ensure the Docker images are properly deployed and accessible via Google Cloud.
4. All team members rehearse their parts for the upcoming presentation to ensure smooth delivery.

#### **Meeting 6**

**Date and Time**: October 3, 2024, 4:00 PM

**Place**: 1010 Commonwealth Ave Room 314

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao, Haochen Sun

**Minutes Taker**: Linchen Xu

**Timekeeper**: Linchen Xu

**Purpose**: Review progress on project tasks, particularly authentication service integration, resume analysis platform requirements, and job description data retrieval.

#### **Agenda:**

1. Status updates on project tasks
2. Discussion on integration of authentication services
3. Progress on resume analysis platform requirements
4. Retrieval and setup of job description data for database use

#### **Discussions:**

1. **Authentication Service**: Discussed the completion of Google authentication service testing, noted some issues with service access permissions which need further resolution.
2. **Resume Analysis Platform**: Progress on setting up the platform requirements was reviewed. There is a focus on ensuring the database configurations for local and online environments are operational.
3. **Job Description Data**: The retrieval of job description data for the project's database was discussed, including the need to ensure accurate and extensive data collection to support the AI functionalities.
4. **Project Management**: Concerns were raised about the detailed task management on Jira and ensuring all tasks are updated and tracked properly.

#### **Key Decisions:**

1. Continue refinement and testing of the Google authentication service to resolve existing issues.
2. Prioritize the completion of the resume analysis platform setup to meet upcoming project milestones.
3. Accelerate the process of job description data retrieval and integration into the database.

#### **Action Items:**

1. Linchen Xu to follow up on authentication service issues and coordinate with the team to resolve them.
2. Zihan Zhou to oversee the setup of the resume analysis platform and ensure database configurations are completed.
3. Zhen Cao to take charge of gathering and integrating job description data into the system.
4. Lin Ma to update the project management tasks on Jira and ensure all team members have clear assignments and deadlines.
5. Haochen Sun to write a crawler for crawling job descriptions.

#### **Meeting 5**

**Date and Time**: September 29, 2024, 2PM

**Place:** Online Meeting

**Participants:** Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao, Haochen Sun

**Minutes Taker:** Lin Ma

**Timekeeper:** Lin Ma

**Purpose:** To discuss the missed deadline for SE’s iteration0 submission and identify root causes, lessons learned, and action items to prevent future incidents.

**Agenda:**

1. Overview of the Incident
2. Root Cause Analysis
3. What Went Well
4. Areas for Improvement
5. Summary and Action Plan

**Discussions**:

* Overview: The team discussed the missed deadline for SE’s iteration0 submission, which was originally due on September 26, 2024.
* Root Causes:
  + The primary issue was forgetting to submit the assignment.
  + Waiting for other PRs to be checked in delayed the submission.
  + There was ambiguity regarding the assignment ownership.
  + Required files were not fully completed, leading to a delay in submission.
* What Went Well:
  + LinChen reminded the team member promptly after noticing the oversight.
  + A quick solution was implemented to submit the necessary documents.
  + An email was sent to the professor explaining the situation.
  + The team responded swiftly to the situation.
* Areas for Improvement:
  + Establish a clear Release Date that no longer accepts new PRs.
  + Set a Submission Date and assign an Assignment Owner.
  + Break down and complete required files early in the iteration cycle.
  + Post progress updates and TODO items before meetings.

**Key Decisions:**

* Define a Release Date and Submission Date to align with deadlines.
* Assign a clear Assignment Owner to manage submissions.
* Break down assignments into task items and track progress.

**Action Items:**

* Submission Owner: LinChen Xu [xlc98@bu.edu](mailto:xlc98@bu.edu)
  + Ensure all required files are completed and submitted on time.
* Team Members: Break down the assignment into task items and post progress updates before the weekly scrum meeting.
* Requirement Owner: haocsun@bu.edu
  + Collect tasks from the Discord channel.
  + Create GitHub issues and link them to Jira.

**Summary:**

* Checkout Release Branch Date: The last Sunday before each iteration.
* Release Date: The last Tuesday before each iteration.
* Submission Date: Same as Release Date at 8 PM.
* Submission Owner: LinChen Xu [xlc98@bu.edu](mailto:xlc98@bu.edu)
* Requirement Owner: [haocsun@bu.edu](mailto:haocsun@bu.edu)

**Meeting 4**

**Date and Time**: September 26, 2024, 3:35 PM

**Place**: 1010 Commonwealth Ave Room 314

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao, Haochen Sun

**Minutes Taker**: Linchen Xu

**Timekeeper**: Linchen Xu

**Purpose**: Detailed discussion on project tasks, deployment strategies, and API integration for the AI resume analysis application.

#### **Agenda:**

1. Update on project tasks and progress.
2. Discussion on deployment strategies and API integration.
3. Review and assignment of tasks for backend and frontend development.

#### **Discussions:**

1. Project Updates: Linchen Xu reviewed the requirements and suggested revisions. The team discussed various aspects such as user authentication, data security, and the use of APIs for resume analysis.
2. Deployment Strategy: The discussion covered the deployment of the application using cloud services and the considerations for setting up a robust and secure environment. Emphasis was placed on using vector databases and optimizing API queries to handle large datasets.
3. API Integration: The team planned the integration of APIs for resume parsing, job matching, and generating interview questions. The possibility of using external services for these features was also explored.
4. Frontend and Backend Tasks: Lin Ma, Zhen Cao and Zihan Zhou were assigned specific tasks related to the frontend and backend development, respectively. The team agreed on the need for effective collaboration between frontend and backend teams to ensure seamless integration.

#### **Key Decisions:**

1. Proceed with the revised requirements for the project as suggested by Haochen Sun.
2. Implement cloud services for deployment and utilize vector databases for efficient data handling.
3. Integrate external APIs for key functionalities like resume parsing and job matching.
4. Milestones for each iteration:
   1. End of Iteration 1: Finish the development and testing of Resume Analysis function.
   2. End of Iteration 2: Finish the development and testing of Q&A function, interview question suggestion function and deployment function.
   3. End of Iteration 3: Develop optional/desirable functions if time allows.

#### **Action Items:**

1. Haochen Sun to finalize the requirement documentation by the next meeting.
2. Lin Ma to update the frontend based on the revised requirements and ensure integration with backend services.
3. Zihan Zhou to coordinate with the backend team to integrate APIs and test the services.
4. Linchen Xu to oversee the entire project coordination, ensuring all teams meet the upcoming milestones.

**Meeting 3**

**Date and Time**: September 19, 2024, 3:35 PM

**Place**: Pardee Library

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao, Haochen Sun

**Minutes Taker**: Linchen Xu

**Timekeeper**: Linchen Xu

**Purpose**: Discussion on detailed project planning, functional requirements, and task assignments for the AI resume analysis application.

**Agenda:**

1. Review of project goals and progress
2. Discussion on technology stack and security aspects
3. Task division and timeline for upcoming development
4. Presentation preparation and finalizing high-level requirements

**Discussions:**

1. **Project Overview**: The team discussed the core functionality of the AI resume analysis system, focusing on features such as resume evaluation, matching with job descriptions, generating interview questions, and recommending projects.
2. **Technology Stack**: The team decided on using existing APIs for resume analysis and discussed incorporating database management and back-end services.
3. **Security Considerations**: Security concerns were addressed based on class lectures, with the team agreeing to revisit specific security measures before the final presentation.
4. **Task Assignment**: Lin Ma will be in charge of front-end development. The back-end will be divided among team members, with focus areas including API integration and general back-end structure.
5. **Next Steps**: A shared document will be used to track progress. A presentation is planned for the following week, where the high-level functional requirements will be finalized by Haochen Sun. From now on, Haochen Sun will be Requirement Leader instead, and Linchen Xu will take over the role of Design and Implementation Leader.

**Roles assigned:**

1. Linchen Xu: Team Leader, Design and Implementation Leader
2. Lin Ma: Configuration Leader
3. Zihan Zhou: Security Leader
4. Zhen Cao: QA Leader
5. Haochen Sun: Requirement Leader

**Key Decisions:**

1. Finalize functional requirements for the resume analysis AI system.
2. Prepare for the upcoming project presentation by finalizing all necessary documents and project milestones.

**Action Items:**

1. Lin Ma will draft the front-end structure and UI by next meeting.
2. Zihan Zhou will draft the design the general backend structure, and AI backend structure design will be drafted by Zhen Cao.
3. All team members will complete their respective sections of the document.
4. Finalize security measures for the project before the presentation.

**Meeting 2**

**Date and Time:** September 14, 2024, 2:46 PM

**Place:** Pardee Library L214C

**Participants:** Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao

**Minutes Taker:** Linchen Xu

**Timekeeper:** Linchen Xu

**Purpose:** Discussion on AI resume analysis application and project planning

**Agenda:**

1. Review of previous meeting decisions and project progress.
2. Discussion on project requirements and division of tasks.
3. Planning the development of AI resume analysis functionality.
4. Assigning tasks for the upcoming week.

**Discussions:**

1. Project Progress: The team recapped previous discussions and agreed to proceed with the AI resume analysis project. They discussed integrating AI functionality to analyze and suggest improvements to resumes based on job descriptions.
2. Task Assignment: Lin Ma will handle all front-end development, focusing on setting up the user interface and interactions.
3. Planning: The team considered creating a shared project document to manage tasks and high-level functional requirements.

**Key Decisions:**

1. Continue working on the resume analysis AI project.
2. Lin Ma will handle all front-end development.
3. The team will finalize the functional requirements before the next meeting.

**Action Items:**

1. Lin Ma will prepare a draft of the front-end requirements.
2. Team members work on the shared document and fill in their respective sections.

**Meeting 1**

**Date and Time**: September 7, 2024, 2:44 PM

**Place**: Pardee Library L318N

**Participants**: Linchen Xu, Lin Ma, Zihan Zhou, Zhen Cao

**Minutes Taker**: Linchen Xu

**Timekeeper**: Linchen Xu

**Purpose**: Initial project discussion on AI resume analysis application

**Agenda:**

1. Discuss project goals and tasks
2. Decide on the AI technology stack and API usage
3. Set initial project milestones

**Discussions:**

1. Project Goals: The team discussed building an AI-powered resume analysis tool to match resumes with job descriptions. They explored using APIs to optimize the process and handle large-scale data.
2. Technology Stack: The team proposed using external AI models for NLP tasks such as keyword extraction and job matching.
3. Next Steps: Team members will conduct further research on NLP tools and APIs to finalize the technology stack.

**Roles assigned:**

1. Linchen Xu: Team Leader, Requirement Leader
2. Lin Ma: Configuration Leader, Design and Implementation Leader
3. Zihan Zhou: Security Leader
4. Zhen Cao: QA Leader

**Key Decisions:**

1. Focus on AI for resume analysis and keyword matching.
2. Investigate available NLP tools and APIs for integration.

**Action Items:**

1. Team members to research AI APIs for resume and job description analysis.
2. Finalize the tech stack and requirements in the next meeting.