Software Engineering: CMP020N210S
Sprint 2 – Preparing Sprint 3

Group Name: Dualinguists

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BSc. SOFTWARE ENGINEERING

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Introduction

The purpose of our Sprint 2 project is to finalize the initial requirements and ensure all specifications are ready for Sprint 3. This sprint focuses on defining key user stories, developing essential diagrams—including use case, activity, sequence, ERD, and class diagrams—and designing wireframes to establish the application's structure. Additionally, we will finalize the project's colour scheme, ensuring accessibility and inclusivity.

As part of the Sprint 3 preparations, we will organize our Kanban board, complete Sprint 2 tasks, and set up tickets for the next development phase. By ensuring all foundational elements are in place, we aim to facilitate a smooth transition into the implementation phase in Sprint 3.

Application Features as User Stories

1. *User Registration*

As A User, **I Want to** Create An Account, **So That** I Can Access The Platform And Save My Progress.

2. *User Login*

As A User, **I Want to** Log In Using My Credentials, **So That** I Can Access My Personalized Dashboard.

3. *Quiz Selection*

As A User, **I Want to** Browse And Select A Quiz, **So That** I Can Test My Knowledge.

4. *Taking A Quiz*

As A User, **I Want to** Answer Quiz Questions, **So That** I Can Test My Understanding Of The Subject.

5. *Quiz Evaluation*

As A User, **I Want to** See My Quiz Results, **So That** I Can Understand My Strengths And Weaknesses.

6. *Progress Tracking*

As A User, **I Want to** Track My Progress, **So That** I Can See My Improvement Over Time.

7. *Providing Feedback*

As A User, **I Want to** Submit Feedback About Quizzes, **So That** I Can Report Errors Or Suggest Improvements.

8. *Logout*

As A User, **I Want to** Log Out Of My Account, **So That** I Can Secure My Session.

9. *Admin - Managing Accounts*

As an Admin, **I Want to** Manage User Accounts, **So That** I Can Suspend Or Delete Accounts If Needed.
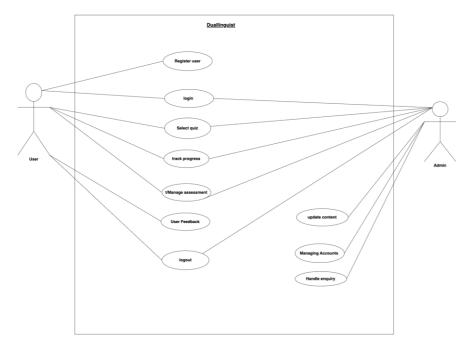
10. *Admin - Updating Content*

As an Admin, **I Want to** Update Quiz Content, **So That** Quizzes Remain Relevant And Accurate.

11. *Admin - Handling Enquiries*

As an Admin, **I Want to** Manage User Enquiries, **So That** I Can Address Concerns And Help.

Diagrams

Use case Diagrams.

This diagram depicts the interactions the user/admin will have with the system and shows all the features available for the user to use.

Explanation:
the system has two actors, User and Admin, most of the features available are accessible by both user and admin except a few.
The user can either register or log in, select and take a quiz, Track progress, manage assessments, provide feedback and log out.
The admin has access to all those features plus more which in this case they are able to update content so users don't get the same questions over and over again, they can manage accounts so if something were to happen to a user's account, the admin can resolve that issue and lastly, they can handle enquiries such as responding to feedback.

Sequence Diagram.

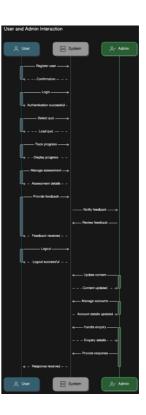This diagram details the flow of interactions between the User, System, and Admin.

Explanations:
Shows how a User registers, logs in, selects quizzes, tracks progress, manages assessments, and provides feedback.
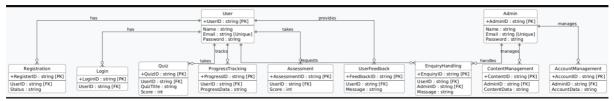The admin receives feedback notifications and updates content, manages accounts, and responds to inquiries.
The system plays an intermediary role by confirming actions and storing necessary details.
This diagram is needed because it shows the step-by-step flow of interactions between the user, admin and the system in a much cleaner and simpler manner.
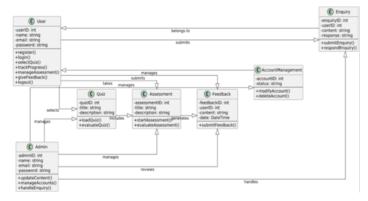
Entity – Relationship Diagram.

This diagram defines the database schema by illustrating relationships between different entities.

This diagram is needed because represents the database structure, detailing entities and relations and ensures efficient data organisation, helping database engineers design and optimize the system.

UML Class Diagram.

This diagram shows the object-oriented structure of the system.

Explanation:

Defines the attributes and methods of each class.

User Class contains:
User-related methods like register (), login(), track Progress(), manage Assessment(), give Feedback(), and logout().
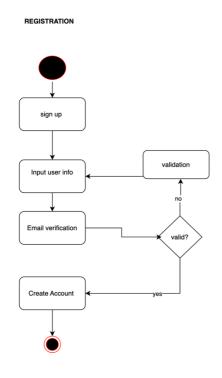
Admin Class contains:
Admin-related methods like update Content (), manage Accounts(), and handle Enquiry().
Other entities like Quiz, Assessment, Feedback, Enquiry, and Account Management are linked logically.

This diagram is essential for defining the attributes and methods of system components and it helps developers build modular, maintainable, and scalable code aligned with system logic.
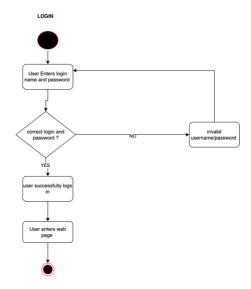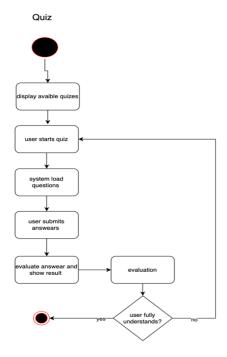
Activity Diagram.

REGISTRATION

Registration

o   User signs up by inputting their details.

o   An email validation process occurs.

o   Once validated, the account is created, and the user may proceed further.

o   If user us unable to verify email, it will take them back to the start.

Login

o   The user enters their login credentials.

o   If correct, they successfully log in and access the web application.

o   If incorrect, an error message is displayed.

LOGIN

Quiz

Quiz

- o   Available quizzes are displayed for selection.
- o   The user starts a quiz, and the system loads questions.
- o   After submitting answers, the system evaluates and displays results.
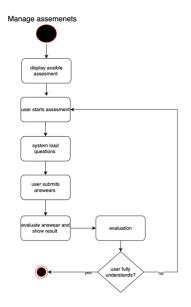- o   If the user fully understands, they proceed; otherwise, further explanation is provided.

Track Progress

- The user accesses progress tracking.
- The system retrieves progress data and displays it.

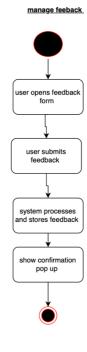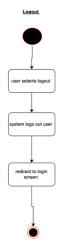Track Progress

Manage assemenets

Manage Assessments

- The user selects an assessment to take.
- The system loads questions.
- The user submits answers, and evaluation occurs.
- If the user fully understands, they move forward; otherwise, they revisit the assessment.

display avaible assement

user starts assesment

system load questions

user submits answears

evaluate answear and show result

evaluation

user fully understands?

yes

no

Manage Feedback

- The user opens the feedback form.
- Feedback is submitted and stored by the system.
- A confirmation message pops up.

manage feeback

user opens feedback form

user submits feedback

system processes and stores feedback

show confirmation pop up

Logout

user selects logout

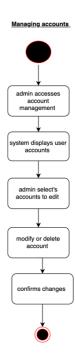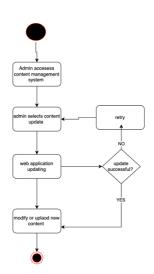system logs out user

redirect to login screen

Logout

- The user selects to log out.
- The system logs out the user and redirects them to the login screen.

Managing Accounts (Admin Action)

- The admin accesses the account management section.
- User accounts are displayed for editing.
- The admin modifies or deletes an account and confirms the changes.

update conentet

Update Content (Admin Action)

- The admin accesses the content management system.
- They select content to update.
- If an update is needed, new content is modified or uploaded.

Handle enquiry

1. Handle Enquiry (Admin Action)

- The admin accesses the enquiry system.
- They review pending inquiries and select one to handle.
- Details are reviewed, and a response is sent to the user.
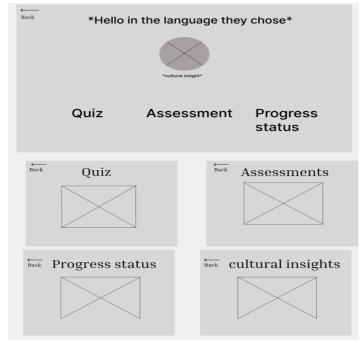- The resolution is recorded.

Design
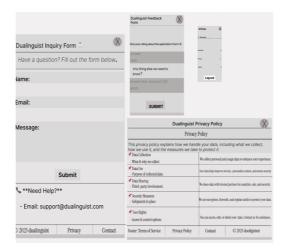
Wireframe
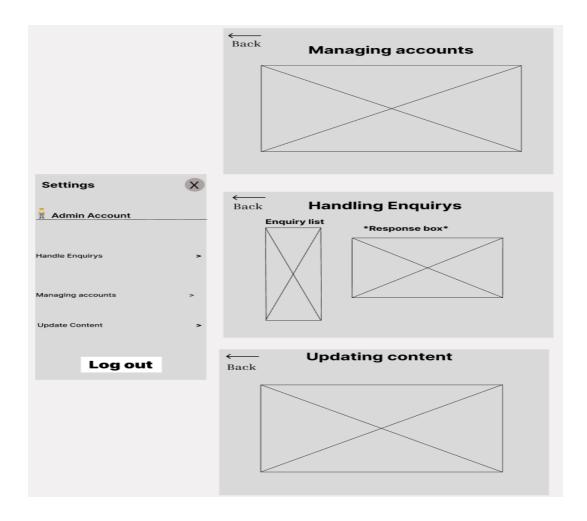
1) When users enter our website URL, they will be redirected to the manifesto page, which includes the About section, a welcome message, and our core aims.

2) In the top right corner, there are buttons for logging in or signing up. Clicking them will redirect users to the respective login or sign-up pages.

3) After logging in, users can select their preferred learning level and indicate if they are a student.

4) Once a level is selected, they will be directed to the language selection page, where they can choose from five available language options.

5) After selecting a language, users can choose an option of their preference and will be redirected to the corresponding page.

6) By clicking the back button, users will be redirected to the welcome page. From there, clicking on the settings icon in the top right corner provides options to submit an inquiry, log out, share feedback, or view the privacy policy. Users will then be redirected to the selected page accordingly.

Managing accounts

Back

Settings ✕

👷 **Admin Account**

Handle Enquirys >

Managing accounts >

Update Content >

Log out

Back **Handling Enquirys**

Enquiry list   *Response box*

Back **Updating content**

7) The admin features differ from regular user features. Once logged in as an admin, the settings menu includes different options. However, admins still share some functionalities with users. They can handle inquiries, update content, manage accounts, and log out.

Design and Colour scheme

As a group, we selected a parrot as our mascot because parrots naturally mimic speech, reflecting the way people learn languages—through repetition. This repetition helps reinforce memory, making it a fundamental part of the learning process. Our logo embodies this concept, symbolizing communication, learning, and engagement."
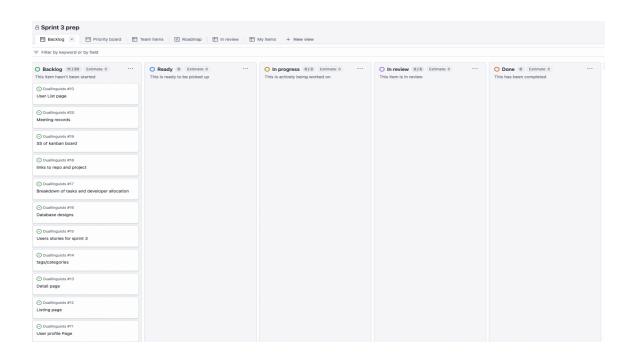
Furthermore, our colour scheme was carefully chosen to promote inclusivity and accessibility. We aimed to make our platform user-friendly for everyone, including individuals with colour blindness. By selecting colours from our mood board that are high in contrast and easy to distinguish, such as monochromatic tones, we ensure better readability and visual clarity. Our logo was also designed with bold and dark colours to maintain its visibility and recognition for those affected by colour vision deficiencies. This thoughtful approach ensures that our brand remains accessible and visually inclusive to a diverse audience.

Screenshot of Kanban board

Completed Sprint 2 tickets.

Preparing sprint 3 tickets

Meeting Record

Date and Time	19/02/2025 4:00pm 20/02/2025 12:00pm 24/02/25 16:00 pm
Project Name	DUALINGUISTS
Meeting Goal	19/02/2025 4:00pm = assigning tasks and getting started with the CW 20/02/2025 12:00pm = finishing what's left with the assigned tasks and move on to the wireframe as a group. 24/02/25 = feedback and review
Facilitator	Sawsan
Note taker	Adam
Attendees	19/02/2025 4:00pm = Everyone 20/02/2025 12:00pm = Everyone 25/02/2025 16:00 + Everyone

Roundtable Updates (each group member to contribute)	19/02/2025 4:00pm = we updated each other every 30-45 mins to check everyone's progress as this was a in person meeting 20/02/2025 12:00pm = we confirmed if our diagrams were right to our lecturer and listened and worked on her feedback 25/02/2025 16:00 = We discussed whether anything was missing, reviewed the work, and shared our opinions with each other.
Discussion points	19/02/2025 4:00pm = we discussed on which diagram is everyone going to do, after we all agreed on our given tasks, we started with the CW 20/02/2025 12:00pm = we discussed the feedback we were given from our lecturer and improved our diagrams and after all of that was done, we discussed how the wireframe will be completed. 25/02/2025 16:00 = our feedback primarily focused on refining the wireframe to eliminate any doubts. In the end, we collectively adjusted the wireframe while also considering simplicity in the design. Additionally, we discussed ways to enhance user-friendliness.

Actions (list tasks and assign a group member)	19/02/2025 4:00pm = we assigned tasks to everyone and gave each other updated every 30 mins as we had a in person meeting 20/02/2025 12:00pm = we each finalised our individual tasks and moved on to the wireframe together. 24/02/2025 17:00: completed tasks

Conclusion

Sprint 2 successfully prepared us for Sprint 3 by finalizing initial requirements and key specifications. Our team efficiently created essential diagrams, defined user stories, and designed wireframes with a well-planned colour scheme. We completed Sprint 2 tasks, set up Sprint 3 on our Kanban board, and held regular meetings to review feedback and make improvements. By including extra artifacts like the ERD and use case diagrams, we streamlined planning, allowing us to focus more on development in future sprints.

Links

Links to github

https://github.com/sawsanmounes05/Duallinguists

https://github.com/users/sawsanmounes05/projects/5

https://github.com/users/sawsanmounes05/projects/6

coursework link

https://roehamptonprod-
my.sharepoint.com/:w:/r/personal/mouness_roehampton_ac_uk/Documents/88.docx
?d=wc0913abaf96b4066be481b6a260265cf&csf=1&web=1&e=UzI3jb