# Readify - Intelligent Assistant to Improve Reading and Comprehension Skills in English Language

Project ID: 24-25J-27

LOG BOOK

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Specializing in Software Engineering

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# DECLARATION

I declare that this is my own work and this Logbook does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any

other university or Institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.
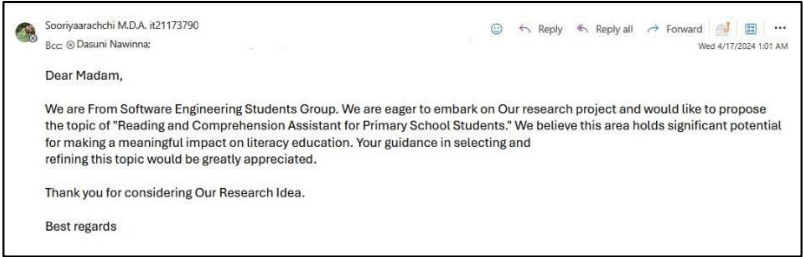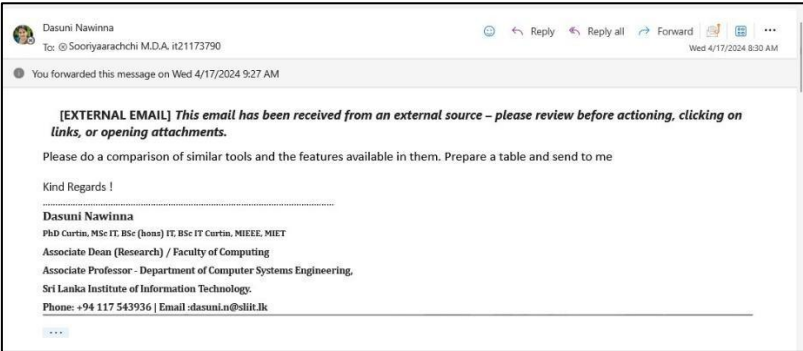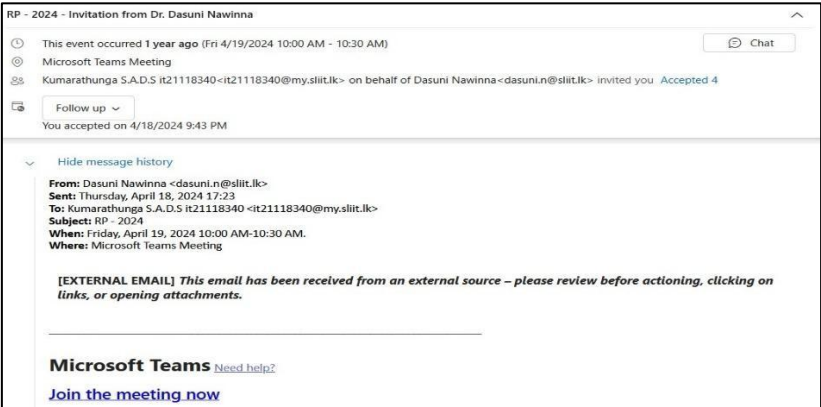
| Name | Student ID | Signature |
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| Senanayake W.G.B | IT21158322 |  |

Signature of the Supervisor                                    Date
(Dr. Dasuni Nawinna)
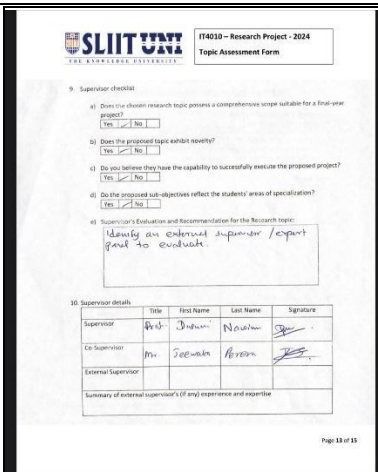

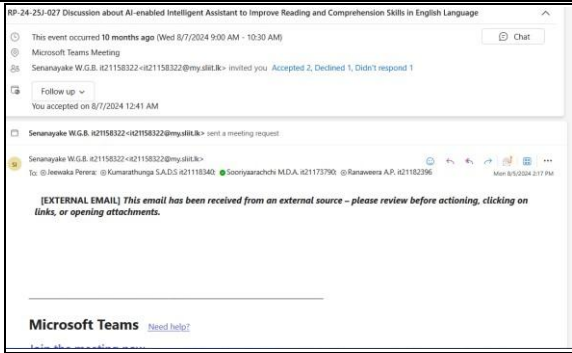……………………….                                    ..………………

1. Monthly Progress

| Month | Details and notes of work carried out, problems encountered and how solved etc., sketches and dimensions to be given wherever possible. |
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| 2024 -April | • Reaching out to eligible supervisors to request their acceptance of our research proposal. (17.04.2024)<br><br><br><br><br><br><br><br>• Initial Discussion on Research Topic Functions via Teams with the supervisor (19.04.2024)<br><br>• Dr. Dasuni Nawinna Accepted our Proposal (19.04.2024) |

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| **2024- May** | • Supervisor Assigned Mr. Jeewaka Perera as a Co- Supervisor and Created WhatsApp Group.<br><br><br><br>Discussion on Research Topic Functions with our Co Supervisor at University<br>• (29.05.2024) |
| **2024 – June** | • Created the TAF Document (15.06.2024 – 16.06.2024)<br><br><br><br>Discussion on Research Topic Functions with our Co Supervisor at University<br><br>• (20.06.2024)<br>• Signed and verified the TAF document from Supervisor, Co- Supervisor<br><br>(20.05.2024 -21.05.2024) |

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| | • ' Document (24.06.2024) |
| **2024 - July** | • Topic Assessment evaluation. (05.07.2024) |
| | • Accepted the Topic with minor changes (05.07.2024) |
| | • Analyzed traditional vocabulary learning approaches. |
| | • Researched AI techniques in educational apps. |
| | • Conducted initial study on AI and vocabulary learning. |
| | • Compared tools like Duolingo, Quizlet, and Memorize. |
| | • Researched CEFR framework. |
| | • Identified key technologies and tools for implementation. |
| | • Studied CEFR proficiency levels and their implications for parapgraphs. |
| | • Explored possible model architectures (ML vs LLM). |
| **2024 -August** | • Preparing for the Proposal presentation with the co-supervisor (02.08.2024) |
| | • Prepared the Proposal presentation slides (03.08.2024) |
| | • Preparing for the Proposal presentation with the Team (04.08.2024) |
| | • Participated in the proposal presentation and accepted (Minor changes) with the research component (05.08.2024) |
| | • Discussion about changes in the research project component with our cosupervisor on MS Teams (07.08.2024) |

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| | • Studied fine tune process and llms.<br><br>• Studied about Machine Learning. |
| | <br><br>Created propos<br>• (20.0                    8.2024 – 23.08.2024)<br>• Meeting with the supervisor to obtain the signature for the proposal report (24.08.2024).<br><br>• Proposal report submitted to cloud folder (28-08-2024) |
| **2024 - September** | • Discussion about Future Plans with our co-supervisor on Phone Call (10.09.2024)<br><br>• Collected CEFR-labeled learner mcq and paragraph datasets.<br><br>• Created structured mcq and paragraph dataset with metadata.<br><br>• Cleaned and normalized all text data.<br><br>• Applied Fine tune using colab.<br><br>• Team Discussion on Campus (22.09.2024)<br><br>• Found an external supervisor who is an English teacher and had a discussion with her. (30.09.2024) |
| **2024 – October** | • Created GitHub Repository (02.10.2024)<br><br> |

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| | • Designed overall system flow for retrieval and generation. |
| | • Studied tokenizer and embedding with llama model. |
| | • Created script for fine tune ll. |
| | • Train llm model with dataset. |
| | • Committed and pushed all implemented features to the 'para' branch in the Git repository. |
| | • External supervisor's physical meeting (26.10.2024) |
| | • Team discussion (26.10.2024) |
| **2024 – November** | • Team Discussion on Campus (05.11.2024) |
| | • Measured accuracy of predicted question and answers. |
| | • Change dataset and retrain. |
| | • Committed and pushed all implemented features to the 'vocab' branch in the Git repository. |
| | • Created web application sketches, wireframes, and prototypes, along with discussions with team members (10.11.2024 – 20.11.2024). |

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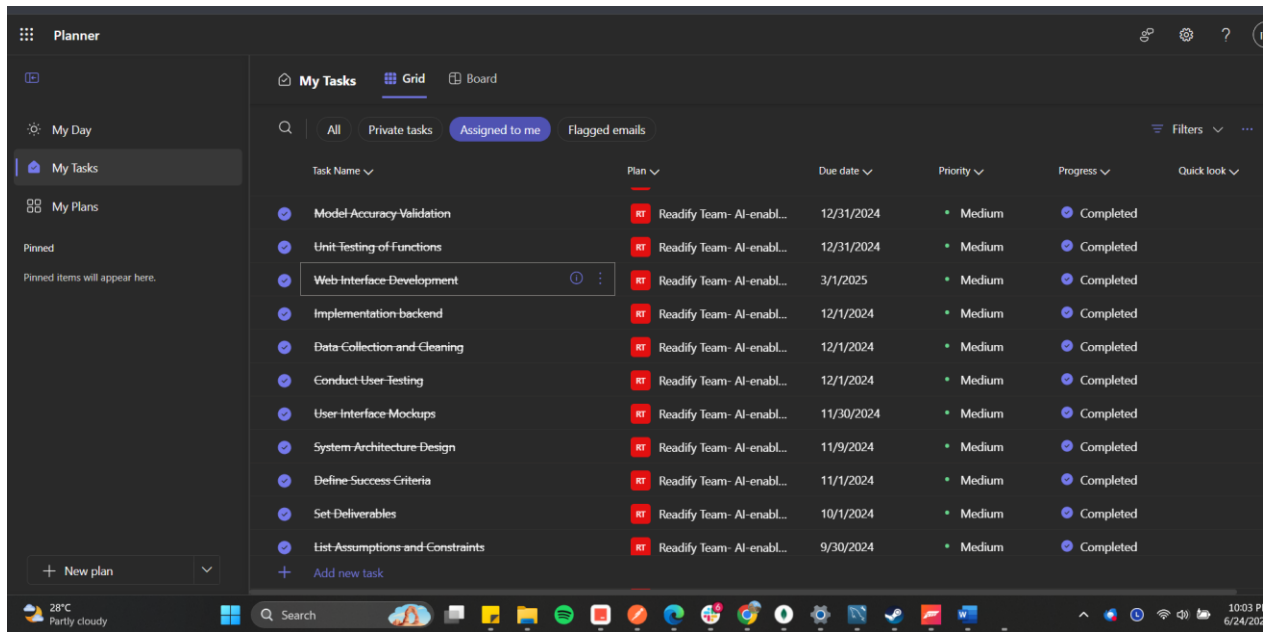| | |
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| | • Personalized output based on user CEFR level and topic for mcq and paragraph. |
| | • Finalized back-end logic for game generation and vocabulary level predict. |

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| | • Committed and pushed all implemented features to the 'vocab' branch in the Git repository. |
| **2025- January** | • Team discussion (02.01.2024, 10.01.2024, 21.01.2024) |
| | • Initialized frontend project with Vite and React.js. (04.01.2024) |
| | • Designed CEFR base question and answer. |
| | • Study personalization. |
| | • Implemented mcq generate UI for basic module support. |
| | • Styled components with Tailwind CSS. |
| | • Made UI responsive for mobile and desktop. |
| | • Improved UI elements based on user feedback |
| | • Committed and pushed all implemented features to the 'model' branch in the Git repository. |
| **2025- February** | • Merge other team members components through the GitHub (10.02.2025) |
| | • Attended an online session on "How to Write a Research Paper" conducted by our supervisor (11.02.2025, 18.02.2025) |
| | • Created research paper draft (09.02.2025 - 14.02.2025) |
| | • Submitted research paper draft (15.02.2025) |
| | • Integrated CEFR prediction and personalization. |
| | • Configured CORS for frontend-backend communication. |
| | • Implemented error handling and retries. |
| | • Team discussion regarding PP2 (22.02.2025) |
| | • Arranged a meeting with the new external supervisor (27.02.2025) |
| | • Committed and pushed all implemented features to the 'personalize' branch in the Git repository. |
| **2025-March** | • Submitted final research paper to the cloud location (CDAP) (06.03.2025) |
| | • Created UI/UX Demo Video (15.03.2025) |

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| | • Team discussion (07.03.2024, 11.03.2024) |
| | • Prepared PP2 Presentation slides (16.03.2025) |
| | • Prepared for PP2 presentation with the team (18.03.2025) |
| | • Submitted Checklist II to the cloud location (CDAP) (17.03.2025) |

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| | • Participated in PP2 presentation and viva. (19.03.2025) |
| | • Created detailed test plan and strategy. |
| | • Wrote unit tests for CEFR base mcq model pipeline. |
| | • Validated RAG output with test inputs. |
| | • Evaluated llm model output responses for correctness. |
| | • Committed and pushed all implemented features to the 'model' branch in the Git repository |
| **2025-April** | • Created Final report (01.04.2025 - 11.04.2025) |
| | • Submitted the final report to the cloud location (11.04.2025) |
| | • Enhanced the user interfaces and the user experience under the guidance of the external supervisor (17.04.2025) |
| | • Initiated the submission of the research paper to journals and conferences. (18.04.2025) |
| | • Team discussion (20.01.2024, 28.01.2024) |
| | • Committed and pushed all implemented features to the 'vocab' branch in the Git repository |
| | • Merge members' components through the git hub (30.04.2025) |
| **2025-May** | • Discussed testing methods for my component with the external supervisor (05.05.2025). |
| | • Deployed services using Docker containers. |
| | • Hosted APIs on aws Services. |
| | • Hosted Frontend on Netlify. |
| | • Created Deployment Report of Project (22.05.2025) |

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| | • Submitted Checklist III to the cloud location (CDAP) (26.05.2025) |
| | • Created Research Project Website (25.05.2025) |
| | • Prepared the final presentation slides (24.05.2025) |
| | • Prepared for PP2 presentation with the team (25.05.2025) |
| | • Participated in the final presentation and viva (26.05.2025) |
| | • Participated in the Research Project Website Evaluation Viva (26.05.2025) |
| **2025-June** | • Got the RP- Acceptance notification (09.06.2025) |
| | <br><br>Completed the RP – Registration process (19.06.2025)<br><br>• |

## 2. Individual Task Allocation Process

## 2.1    Assigned Tasks

(MS Planner)