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| Sprint | Sprint Tasks | Scrum Master | Meeting Dates and Time | Sprint Reviews |
| Model Design and Initiation | Develop a mindmap to outline the project's objectives and structure.  Create a flowchart to visualize the model's architecture and workflow.  Conduct research on U-Net and other potential CNN architectures for the classification model  Gather and analyze satellite image datasets for training.  Draft the initial project documentation | Sabal Nemkul | 28/01 – 31/01  28/01 – 31/01  04/02 – 07/02  11/02 – 14/02  14/02 – 19/02 | The team successfully created a clear model design using mindmaps and flowcharts, researched CNN architectures, and ensured the dataset was appropriate for the project scope. |
| Classification Model Implementation | Develop and train the U-Net model for land use classification using Python. Fine-tune to achieve the best accuracy (achieved 82.4%).  Evaluate the model on validation and test datasets for performance analysis.  Implement scripts for preprocessing satellite images into 64x64 patches.  Create and save the model's training history for later reference.  Document the development and testing process for the classification model. | Thathsara Abesooriya | 18/02 – 07/03  10/03 – 13/03  10/03 – 13/03  18/03 – 26/03  21/03 – 26/03  26/03 – 27/03 | The classification model was successfully implemented, achieving high accuracy. Preprocessing scripts were created, and the training process was documented thoroughly. |
| Alert System and Web-Based Interface | Research web-based interfaces and determine the best tools/technologies.  Develop a Python-based backend to integrate the classification model with the alert system.  Create a web-based interface for users to upload satellite images and view results.  Implement the alert system to notify users of significant changes detected in land use.  Test the full pipeline (model, alert system, and web interface) for reliability. | Sabal Nemkul | 21/03 – 26/03  27/03 – 01/04  27/04 – 04/04  03/04 – 04/04  05/04 | The alert system and web-based interface were developed successfully. Initial testing showed promising results, and feedback was gathered for refinement |