

3. Task Assignment & Roles – Defined responsibilities for team members

Task Assignment & Roles: Land Type Classification using Sentinel-2 Satellite Images

1. Data Scientists:

- **Responsibilities:**
 - Collect and preprocess Sentinel-2 satellite images.
 - Perform exploratory data analysis (EDA) and feature engineering.
 - Develop and train the DNN model using TensorFlow or PyTorch.
- **Tasks:**
 - Download and clean the dataset.
 - Perform EDA and generate visualizations.
 - Implement and optimize the DNN model.

2. Machine Learning Engineers:

- **Responsibilities:**
 - Select and fine-tune machine learning models.
 - Evaluate model performance using metrics like accuracy, precision, and recall.
 - Deploy the model as a web service or API.
- **Tasks:**
 - Experiment with different model architectures (e.g., CNN, ResNet, VGG).
 - Perform hyperparameter tuning and model evaluation.
 - Deploy the model using Flask, FastAPI, or Django.

3. DevOps Engineer:

- **Responsibilities:**
 - Set up the deployment pipeline on cloud platforms (e.g., AWS, Google Cloud).
 - Implement monitoring tools to track model performance.
 - Ensure scalability and reliability of the deployed model.

- **Tasks:**

- Deploy the model on a cloud platform.
- Set up monitoring and alert systems for model performance.
- Document the deployment and monitoring process.

4. Project Manager:

- **Responsibilities:**

- Coordinate between team members and stakeholders.
- Ensure timely delivery of milestones and deliverables.
- Communicate project progress and challenges to stakeholders.

- **Tasks:**

- Create and maintain the project timeline.
- Organize team meetings and progress reviews.
- Prepare final documentation and presentations.