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| **Sl No:** | **Task** | **Person** | **Start Date** | **End Date** | **Status** |
| 1 | **Data Collection**   * Capturing images of Coconut (near river banks) – (Time: 11AM – 4PM) * 55 images captured | AS | 3/07/2024 | 10/07/2024 | Completed |
| 2 | **Data Collection**   * Visited a Kerala Coconut Plantation Office – (TIME: 3PM – 4PM) * 50 images captured | AK | 3/07/2024 | 10/07/2024 | Completed |
| 3 | **Basic Preprocessing and Annotate images**   * Rescale, Denoise, Histogram Equalisation, Contrast * Label, Annotate (label img) | AK | 10/07/2024 | 13/07/2024 | Completed |
| 4 | **Annotate images**   * Label, Annotate (label img) | AS | 11/07/2024 | 13/07/2024 | Completed  (For 170 Images) |
| 5 | **Prepare/ Organise Dataset**   * Training and validation sets | AK | 13/07/2024 | 13/07/2024 | Completed |
| 6 | **Data processing**   * Verifying all the steps | AK | 14/07/2024 | 15/07/2024 | Completed |
| 7 | **Understanding the Model Architecture**   * YOLOv5, YOLOv8 (Object detection) * U-Net/Mask R-CNN (Object segmentation) | AK | 16/07/2024 | 16/07/2024 |  |
| 8 | **Model Deployment**   * YOLO * U-NET/Mask R-CNN | AK | 16/07/2024 | 17/07/2024 | Completed (YOLO)  Pending  (R-CNN) |
| 9 | **Model Validation/ Testing**   * Testing with unseen data * Metrics - Confusion matrix, IoU (Intersection over Union) for object detection, and Dice coefficient for segmentation | AK | 16/07/2024 | 18/07/2024 | Completed (YOLO) |
| 10 | **Hyperparameter Tuning**  YOLOv5:  • Batch size  • Learning rate  • Number of epochs  U-Net/Mask R-CNN:  • Learning rate  • Batch size  • Number of epochs | AK | 19/07/2024 | 19/07/2024 |  |
| 11 | **Deployment**   * Deployment Workflow * - Build a REST API to serve the model predictions. * - Integrate the API with a mobile app using Flutter or React Native. * - Host the model on a cloud service (e.g., AWS, Google Cloud). | AK | 20/07/2024 | 25/07/2024 |  |