| Student Name - Moe Ni Ni Chaw | | Student ID - 23410116 | | | | |
|---|---|---|---|---|---|---|
| Date | Topic | Description | Time Spent | Challenges Faces | Solution |
| 11/12/2024 | Group discussion | discussed about topic and how we will work | 2 hours | NIL | NIL |
| 17/12/2024 | Group discussion | decided problem statement which is weather and grains to perdict future prices | 2 hours | NIL | NIL |
| 18/12/2024 | Finding Dataset | explored the dataset in aligement with problem statement | 4 hours | did not find the dataset as project requiement | NIL |
| 19/12/2024 | Finding Dataset | explored the dataset in aligement with problem statement | 3 hours | raw the dataset to aligement with problem statement | discussed with gorup members |
| 20/12/2024 | Group discussion | Modified the problem statement which is prediction grains productions in fucture | 2 hours | NIL | NIL |
| | Finding Dataset | found datasets grains production yearly for every regions | 2 hours | NIL | NIL |
| 21/12/2024 | Finding Dataset | explored mean annual weather datasets for Myanmar | 5 hours | require to take many time to download the data recod enough because of data access limitation  on website | found the NASA website which provide annual weather data |
| 22/12/2024 | Collecting weather dataset | downloaded mean annual weather datasets  (1981–2022)  from NASA website | 30 minutes | NIL | NIL |
| 23/12/2024 | Modifying dataframe | implemented python codes to modifed weather dataframe which requires to meet with project requirements | 3 hours | NIL | NIL |
| 24/12/2024 | Collecting crop dataset | downloaded crops datasets (1961–2022) from our world in data website and combined sepreated csv files using pandas | 2 hours | NIL | NIL |
| 25/12/2024 | Creating mongo DB | implemented the code to connect with mongo DB and uploaded raw datasets before perprocessing | 2 hours | NIL | NIL |
| 27/12/2024 | Creating final dataset | combined three types of datasets such as weather data, yields data and used of land data | 1 hours | NIL | NIL |
| 28/12/2024 | data Preprocessing | checked and handle missing values and duplicated values | 2 hours | NIL | NIL |
| 29/12/2024 | Feature Egineering | adding new cooleration features to  the perdiction features and scaling technique | 3 hours | NIL | NIL |
| 30/12/2024 | uploading final dataset | Uploaded final dataset on Mongo DB after perprocessing | 1 hours | NIL | NIL |
| 31/12/2024 | data Visualization | visualization the data distribution, outlier, relationship between features and correlation | 3 hours | require to understand multiple feature relationship and correlation. | Used barplot and heatmap visualization methods |
| 1/1/2025 | Perparing dataset | Perparing dataset | 3 hours | There is object values in the dataset. the algorithm might not access these values. | Used label endcoding method |
| 2/1/2025 | moving new house | | | | |

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| 3/1/2025 | Machine Learning model | implemented machine learning models and evaluation including linear regression, Random forest model, SVR and decission tree | 2 hours | linesr regression model result is very poor | tried with one more non linear regression algorithm which is Gradient Boosting Regression |
| 4/1/2025 | Start report | write indroduction, related works of Gradient Boosting Regression, and about datasets | 3 hours | | |
| 5/1/2025 | Final group meeting, create video and uploaded on git hub | uploaded the files on git hub, and created readme file | 1 hours | | |
| | | discussed about the document format and video recoding | 1 hours | | |
| | | Recoded persentation video | 1 hours | | |