

Agenda & Meeting Minutes

Group No: 3 | Meeting Number: 4 | Date: 25-March-2024 | Time: 9 AM

DAB 304 – Healthcare Analytics: Weekly Project Meeting Minutes

	Name	ID
Chair:	Srilakshmi Gummadidala	
Present:	Srilakshmi Gummadidala, Yen Nga Le, Tehsin Shaikh	0803509, 0824817, 0831234
Next meeting date:	Date/Time 02 – Apr – 2024 9:00 AM	

1. Agenda

- 1.1 : Project activities/work after W9.
- 1.2 : Individual group member action items

2. Specific Activities from prior week:

2.1 List brief description of activities carried out by group members.

- As a team, we are currently engaged in refining our modeling methods, building upon the models developed in the previous week. We are actively exploring various modeling techniques to identify the most suitable approach for our project dataset. Our goal is to optimize accuracy while mitigating overfitting and bias, ensuring that our model produces reliable results that generalize well to unseen data. By carefully testing and validating our models, we're striving to develop robust and dependable predictions that can be trusted for decision-making purposes.
- Each team member is currently immersed in the modeling phase individually, concentrating on refining and experimenting with various techniques. As outlined in the previous week's plan, we've begun exploring advanced modeling methods following feature selection based on feature importances using Lazy Predict modeling and neural network techniques.

3. Specific Output from prior week:


3.1 Include summary of any written work or any code developed.

- We conducted dataset cleaning procedures, addressing missing values, performing statistical analysis, handling data types, and examining categorical distributions for the 'Class' variable. Additionally, we investigated the correlation among variables as part of our EDA analysis.
- Subsequently, we proceeded with predicting the model using a logistic regression approach and analyzed the resulting classification report to evaluate model performance.

- Explored feature importance to understand which features have the most significant impact on the target variable. This could help in feature selection or further interpretation of the model.
- Built additional models such as Random Forest classifier, Decision Tree, XGBoost, and Neural Networks. This step likely involved using different algorithms to compare their performance and select the best-performing model for your dataset.
- During week 11, every team member dedicated time to analyzing the accuracy scores of the implemented models. Additionally, we engaged in discussions regarding the next steps, focusing on fine-tuning the models to mitigate overfitting and bias. Furthermore, the team explored advanced modeling methods to enhance the evaluation of model performance.
- Last week, we transitioned to advanced modeling techniques after selecting only the most important features using feature importance methods. Our approach involved employing Lazy Predict modeling and neural network techniques.
- Dataset link:
<https://data.world/uci/breast-cancer-wisconsin-original/workspace/project-summary?agentid=uci&datasetid=breast-cancer-wisconsin-original>

4. **On Target:**

4.1 **Indicate the status of your project.**

-  **green:** everything on track for completion by due date

5. **Challenges/Disagreements:**

5.1 **List any challenges identified/discussed and possible solutions.**

- Currently, no specific challenges or issues have been identified or discussed. Our attention is directed towards employing advanced modeling techniques to achieve higher accuracy scores while mitigating overfitting and bias.

5.2 **List any notable disagreements and subsequent discussion and resolution.**

- There have been no notable disagreements among team members thus far, but it has not been decided on the final version yet. Discussions have been collaborative and focused on understanding the dataset and refining our analysis techniques. Any differences in opinions or approaches have been resolved through open communication and consensus-building within the team.

6. **Planned Activities for coming week:**

6.1 **List brief description of activities by group member.**

- Each group member will continue to delve into specific aspects of the dataset about model tuning and performance evaluation. Throughout this process, open discussions will be held to address any important points or insights that arise, ensuring comprehensive analysis and effective collaboration within the team.

6.2 Make sure tasks are assigned to address yellow and red flag items.

- As of now, there are no yellow or red flag items identified. The team will promptly address any such issues that may arise during the project's progression.

7. Action Items/Deadlines

7.1 March 25 to April 22 (Week 12 – 15): The following deadlines are proposed for upcoming project action items along with team members who is going to perform that activity.

- **Week 12 (Mar 25 – Apr 2):** Model Tuning and Optimization - **Srilakshmi Gummadidala**
- **Week 13 (Apr 2 – Apr 8):** Performance Evaluation - **Tehsin Shaikh**
- **Week 14 (Apr 8 – Apr 15):** Model Validation - **Yen Nga Le**
- **Week 15(Apr 15 – Apr 22):** Project Documentation - Final project Report preparation, Final Project Presentation. - **Srilakshmi Gummadidala, Tehsin Shaikh, Yen Nga Le.**