

Agenda & Meeting Minutes

Group No: 3 | Meeting Number: 5 | Date: 8-April-2024 | Time: 9 AM

DAB 304 – Healthcare Analytics: Weekly Project Meeting Minutes

	Name	ID
Chair:	Tehsin Shaikh	
Present:	Srilakshmi Gummadidala, Yen Nga Le, Tehsin Shaikh	0803509, 0824817, 0831234
Next meeting date:	Date/Time 15 – Apr – 2024 9:00 AM	

1. Agenda

- 1.1 : Project activities/work after W12.
- 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.

- During the meeting, the group collectively reviewed the partially drafted report with our professor, engaging in a collaborative discussion where each member contributed insights and suggestions. Valuable feedback from the professor regarding the format was received, emphasizing the necessity to condense the content to fit within the designated 15-page limit. Acknowledging the significance of adhering to this constraint, the team brainstormed strategies to streamline the report while preserving its clarity and comprehensiveness. Tasks were assigned to address the format changes, focusing on finalizing the conclusion, outlining contributions, and compiling references. It was stressed that concise and impactful content should be prioritized to ensure essential findings and insights are effectively communicated within the restricted space.
- Additionally, the group utilized Joblib and Pickle within the Flask API to deploy the model and to create an interactive dashboard, facilitating easy access to the model's predictions and insights. This dashboard enables users to input data and receive real-time predictions, enhancing usability and accessibility. Moving forward, the group is committed to revising the report according to the agreed-upon format changes and completing the remaining sections in a timely manner to meet project deadlines.

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. Advanced modeling methods were explored post feature selection, including Lazy Predict modeling and neural network techniques.
- The team delivered refined models following thorough tuning, optimization, and performance assessment. Techniques such as hyperparameter tuning and feature engineering were utilized to enhance model efficacy. Key performance indicators were scrutinized to validate reliability and effectiveness. Commencing report drafting, initial sections detailing methodology and results were outlined.
- During Week 12, our team produced refined modeling methodologies through the exploration of diverse techniques, ensuring the selection of the most appropriate approach for our dataset. Rigorous testing and validation were conducted to establish robust predictions essential for decision-making. Following feature selection, we implemented advanced modeling methods, including Lazy Predict modeling and neural network techniques, to enhance predictive accuracy.
- Last week, the team finalized the most suitable prediction model based on accuracy metrics and commenced report preparation as part of the documentation process. Also reviewed the report with the professor, incorporating additional changes as per the given instructions.
- 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.

- In the upcoming week, our focus will be on finalizing both our project report and presentation. For the report, we'll consolidate individual contributions, incorporate feedback, and ensure adherence to formatting and citation guidelines. Simultaneously, we'll compile presentation slides covering key project aspects, rehearse the delivery for clarity, coherence, and address any potential questions or concerns raised during rehearsals. Our goal is to effectively communicate our project's depth and significance to our audience.

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 April 8 to April 15 (Week 14 – 15): The following deadlines are proposed for upcoming project action items along with team members who is going to perform that activity.

- **Week 14 (Apr 8 – Apr 15):** Model Deployment, Final Project Report and Presentation preparation - **Yen Nga Le, Srilakshmi Gummadidala & Tehsin Shaikh**
- **Week 15(Apr 15 – Apr 22):** Final Project Presentation