

Agenda & Meeting Minutes

Group No: 3 | Meeting Number: 7 | Date: 15-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 |

1. Agenda

- 1.1 : Project activities/work after W13.
- 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.

- We focused on completing and finalizing both our project report and presentation. For the report, we consolidated individual contributions, incorporated feedback, and ensured adherence to formatting and citation guidelines. Simultaneously, we prepared presentation slides covering key project aspects, rehearsed the delivery for clarity, coherence, and addressed any potential questions or concerns raised during rehearsals. Our goal was to effectively communicate our project's depth and significance to our audience.
- Additionally, we deployed and created a web browser HTML as a product with minimal overhead and rapid response times. This deployment facilitated widespread adoption and usage, ultimately contributing to the advancement of breast cancer diagnosis and treatment. As technology continued to intersect with healthcare, such deployments served as a testament to the transformative potential of machine learning in improving patient care and outcomes.

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 13, 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, our team drafted partial report and reviewed it with Professor to get the suggestion. We also reviewed the deployment process and utilized Joblib and Pickle within the Flask API, to train and deploy the model in the next phase.
- We completed the deployment of the Model successfully.
- 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:** Completed the project.

5. **Challenges/Disagreements:**

5.1 List any challenges identified/discussed and possible solutions.

- No specific challenges or issues had been identified or discussed during the project.

5.2 List any notable disagreements and subsequent discussion and resolution.

- No notable disagreements among team members had happened during the project.

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

6.1 List brief description of activities by group member: NA.

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

7. **Completed Action Items:**

- Completed Project

- Submitted Final Report and Presentation