APPLIED BUSINESS ANALYTICS

2023-24, Spring Semester

Modelling Report Guideline

A modelling report typically includes various sections to present the process, findings, and implications of a machine learning project. The presentation of the modelling results should include:

Introduction
1. Brief overview of the project goals and objectives.
2. Explanation of the problem statement or business question you are addressing.
3. Scope and limitations of the analysis.

Data Preparation
1. Explanation of feature engineering techniques applied (creation of new features, transformation of existing features, etc.).
2. Details of any data sampling methods used (oversampling, undersampling, etc.).
3. Splitting of the dataset into training, validation, and test sets.

Modelling Techniques
1. Description of the algorithms used for modelling (decision trees, logistic regression, neural networks, etc.).
2. Explanation of hyperparameter tuning and model selection process.
3. Justification for the chosen modelling approach.

Model Evaluation
1. Performance metrics used for evaluation (accuracy, precision, recall, F1-score, ROC AUC, etc.).
2. Evaluation results for different models (training, validation, and test set performance).
3. Comparison of models and discussion of trade-offs.

Results Interpretation
1. Interpretation of model coefficients or feature importance.
2. Insights gained from the model about the relationships between variables.
3. Discussion of any unexpected findings or insights.

Business Impact
1. Discussion of how the model results can be translated into actionable insights for the business.
2. Estimated impact on key business metrics or KPIs.
3. Recommendations for implementation or further analysis.

Limitations and Future Work
1. Identification of limitations or weaknesses of the model.
2. Suggestions for future improvements or additional data collection.

Conclusion
1. Summary of key findings and insights.
2. Recap of the project goals and how they were achieved.
3. Final thoughts on the significance of the analysis.

Remember to tailor the report to your audience, whether they are technical stakeholders, business executives, or other researchers, to ensure it effectively communicates the value of your analysis and insights.