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| **Detailed Project Proposal (DPP)** |

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| Student Number: |
| Student Name: |
| Course: |
| Supervised by: |
| Type of proposal: |

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| Evaluating different classification algorithms in predicting the occurrence of heart attack |
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| 1. Hypothesis: |
| 1. Short description of your idea: There are many algorithms for performing a classification task like Logistic regression, Naïve Bayes, K-Nearest Neighbours, Decision Tree, Random Forest and Support Vector Machine. My idea is to evaluate these classification algorithms using metrics such as accuracy and F1-score. |
| 1. The project aim(s)    * Find out important factors resulting in heart attacks    * Fine tuning each of the classification algorithm for optimising its performance    * Evaluating the algorithms to find out the relatively better algorithm for this classification task |
| 1. The project objectives    * Comparing the effectiveness of different classification algorithms using metrics such as accuracy score and F1-score. |
| 1. How do you plan to conduct your research?    * I would like to go through various research paper relevant to this topic to get a better understanding    * Searching for relevant datasets    * Applying different Data Science tools and techniques to accomplish the project aim |
| 1. Project plan: This project consists of the following important tasks:  |  |  | | --- | --- | | **Tasks** | **Duration in weeks (approximately)** | | Reading relevant research papers | 2 | | Familiarising myself with python libraries and tools | 2 | | Finding a relevant dataset | 0.5 | | Data cleaning and pre-processing | 1 | | Exploratory data analysis | 1 | | Modelling | 2 | | Evaluation | 2 | |
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