**Feasibility Report**

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| Executive Summary |
| This study evaluates the feasibility of developing a multiple linear regression model to predict student success based on factors like study hours, attendance, extracurricular activities, and previous academic performance, etc. The project aims to improve academic outcomes by providing actionable insights. This report assesses technical and operational aspects, supported by data from academic records and surveys. |
| Description of Product/Service |
| The proposed model will predict student final score, helping educators understand the impact of various factors on performance of students. The service's desirability lies in its potential to enhance educational strategies and support data-driven decision-making. |
| Technical Considerations |
| **Data Collection and Preparation**   * **Sources**: Academic records, surveys, institutional databases. * **Cleaning**: Address missing values and outliers. * **Encoding**: Convert categorical variables to numerical formats. * **Normalization**: Standardize numerical variables.   **Model Development**   * **Data Splitting**: Training and testing sets. * **Regression Analysis**: Multiple regression techniques. * **Evaluation**: R-squared, MAE, and RMSE.   **Tools and Technologies**   * **Software**: Python * **Libraries**: Pandas, NumPy, Scikit-learn. * **Hardware**: Standard computing resources. |
| Product/Service Marketplace |
| **Target Market**   * **Primary Audience**: Educational institutions. * **Market Demand**: High for tools that improve academic outcomes.   **Competitors**   * **Direct**: Educational analytics tools. * **Indirect**: General data analytics platforms. |
| Marketing Strategy |
| **Target Audience**   * **Educational Institutions**: Administrators, educators, researchers.   **Marketing Channels**   * **Digital**: Email campaigns, social media. * **Traditional**: Educational conferences, academic journals. |
| Organization/Staffing |
| **Current Staffing**   * **Project Manager**: Overseeing project * **Data Analyst**: Data collection and cleaning data. * **Data Scientist**: Model development and evaluation. * **GUI Designer**: Designs the GUI to run the model. |
| Schedule |
| **Project Timeline**   * **Phase 1**: Data Collection and Preparation (1 day) * **Phase 2**: Model Development and Testing (3 days) * **Phase 3**: GUI designing for the Model (1 day) * **Phase 4**: Analysis and Reporting (1 day) * **Total Duration**: 6 days |
| Findings and Recommendations |
| **Findings**   * Developing the model is feasible with manageable technical requirements. * High demand for the project exists with significant potential impact.   **Recommendations**   * Proceed with project development, starting with data collection. * Implement the model in phases, starting with pilot tests. |
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