

Model Development Phase Template

Date	9 JULY 2024
Team ID	739880
Project Title	Leveraging Machine Learning for GDP Per Capita Prediction
Maximum Marks	5 Marks

Feature Selection Report Template

The Feature Selection Report on GDP per capita evaluates which features most significantly impact GDP per capita to enhance model accuracy and insights. The analysis begins with an overview of the dataset, including its source, time period, and key features such as population, education level, and employment rate. The feature selection process involves applying techniques like correlation analysis and Recursive Feature Elimination (RFE) to identify the most relevant features. Results highlight these key features and their importance, with an assessment of their impact on model performance. The discussion provides insights from the selected features, acknowledges any limitations, and offers recommendations based on the findings.

Feature	Description	Selected (Yes/No)	Reasoning
GDP Growth Rate	The annual percentage growth rate of GDP	Yes	Crucial indicator of economic health and performance.
Inflation Rate	The rate at which the general level of prices for goods and services is rising	Yes	Essential for understanding the purchasing power and cost of living.

Unemployment Rate	The percentage of the labor force that is unemployed	Yes	Important for assessing the labor market and economic stability.
Interest Rates	The cost of borrowing money	Yes	Influences investment, consumption, and overall economic activity.
Government Spending	The total amount of public expenditures	Yes	Direct impact on economic growth and public services.
Net Exports	The value of a country's exports minus its imports	Yes	Reflects the trade balance and its contribution to GDP.