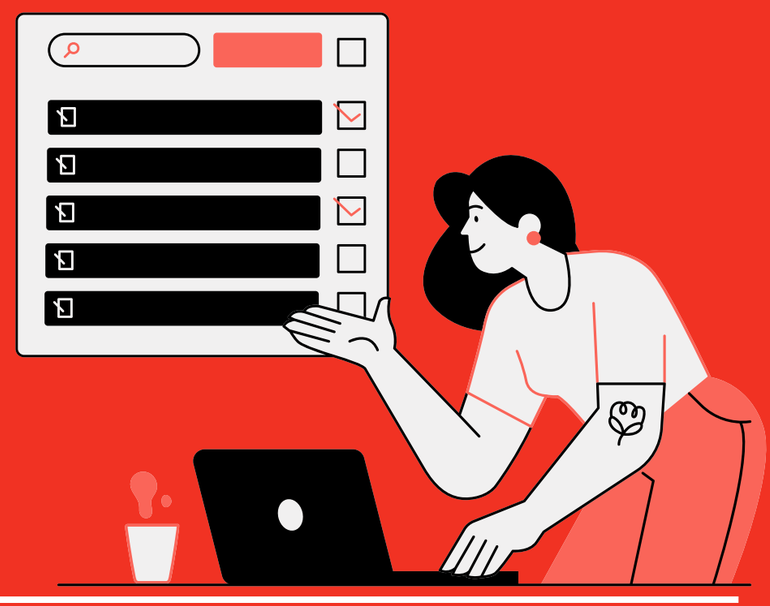
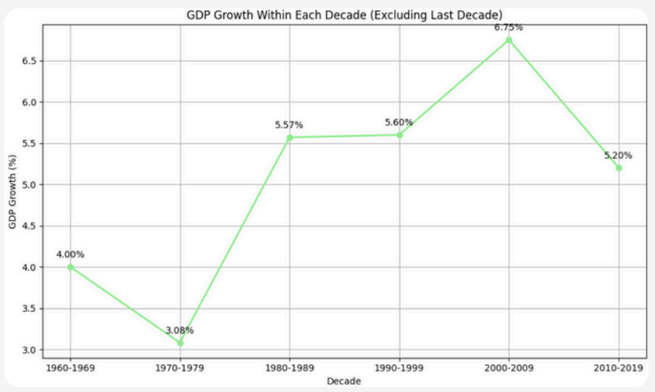
ANALYSIS ON INDIAN ECONOMY



Indian Economy

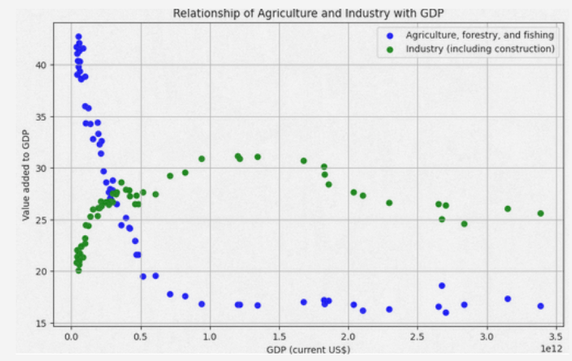


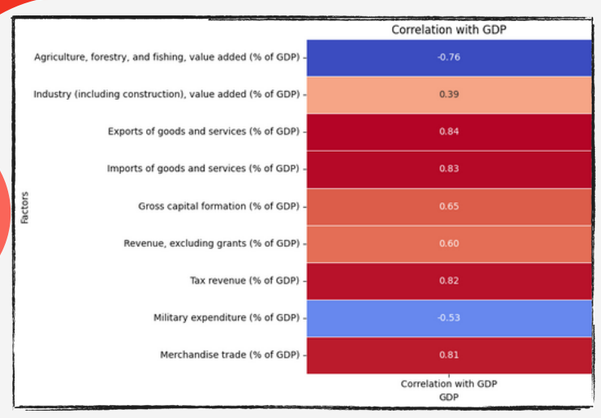
AVERAGE GDP GROWTH OVER THE DECADES

Across these decades, the data showcases varying levels of economic performance. The 1960s and 1970s witnessed moderate growth rates, with a slight increase in the 1980s. Subsequently, the 1990s and 2000s experienced more robust economic expansion, peaking in the 2000s with the highest average growth rate of 6.75%. However, the growth rate slightly declined in the 2010s, though it remained relatively strong at 5.20%.

ARE CHANGES IN AGRICULTURE AND INDUSTRY HAVE ANY IMPACT ON GDP GROWTH?

The data indicates an inverse relationship between the roles of agriculture and industry in GDP. These shifts notably affect GDP growth; periods of decreasing agriculture and increasing industry typically coincide with GDP growth, while the opposite trend may slow it down. Over time, there's evidence of a transition from agrarian to industrial economies, aligning with economic development. This shift involves heightened industrial activity and a reduced emphasis on agriculture, marking a hallmark of economic progress.





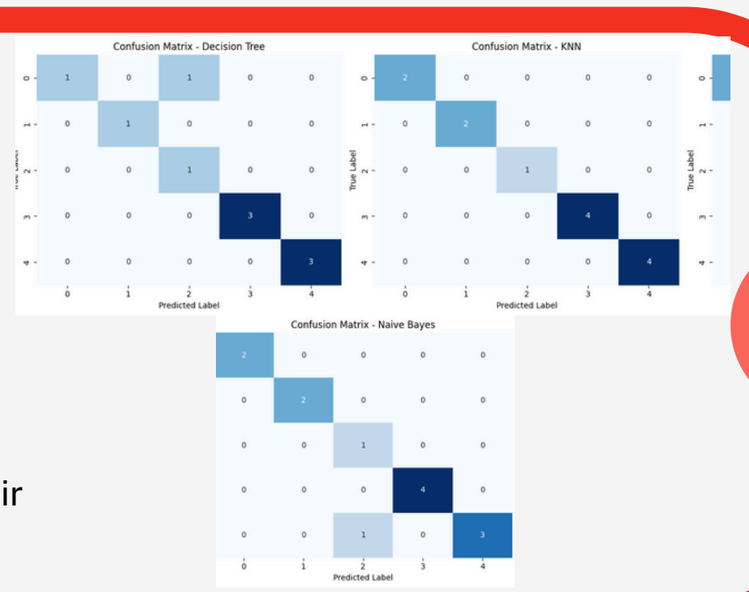
HOW DOES THE PERFORMANCE OF SPECIFIC SECTORS INFLUENCE OVERALL GDP GROWTH?

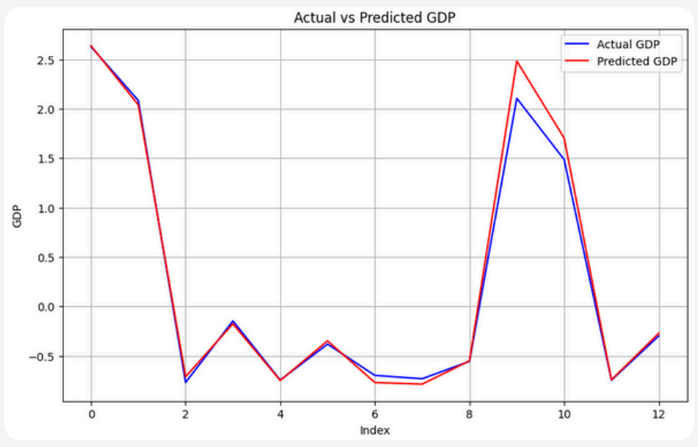
Agriculture: Its decline typically boosts GDP, signaling a shift from agrarian to industrial economies.
Industry: Moderately impacts GDP, indicating its significant but not dominant role.
Exports and Imports: Strong positive correlation; higher trade volumes lead to GDP growth.
Gross capital formation: Positive correlation; investment in capital drives economic expansion.
Revenue and Tax Revenue: Reflective of economic strength, higher revenues boost GDP.
Military Expenditure: While not a direct GDP driver, excessive spending may divert resources from productive sectors.
Merchandise Trade: Like exports and imports, a higher share positively impacts GDP, indicating robust trade.

HOW DO THE CONFUSION MATRICES OF DIFFERENT CLASSIFIERS REVEAL THEIR STRENGTHS AND WEAKNESSES IN PREDICTING ?

The results indicate varying levels of accuracy across the three classifiers. While the KNN classifier achieved the highest accuracy, followed closely by the Naive Bayes classifier, the Decision Tree classifier lagged slightly behind.

Despite conducting multiple tests, the KNN classifier consistently yielded a perfect accuracy score of 1.0, indicating robust performance across different iterations. In contrast, the accuracy scores of the Decision Tree and Naive Bayes classifiers varied with each test, suggesting that their performance may be influenced by factors such as dataset composition or random initialization.





HOW CLOSELY DO THE PREDICTED GDP VALUES ALIGN WITH ACTUAL GDP USING LINEAR REGRESSION?

The predicted values from our linear regression model closely approximate the actual values in the testing dataset. Overall, the model seems to be performing well in capturing the underlying relationships between the features and the target variable. Based on this model's predictions, we can infer that it demonstrates a strong capability to estimate future GDP values based on the value added by different sectors to GDP.

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