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Can WEKA be Used to Develop a Decision Support Model for Economic Growth and Inflation?

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WEKA is a free and open-source software program written in JAVA™ language and contains GUI for interacting with data files and producing visual results. WEKA system provides a rich set of robust Machine Learning algorithms for Data Mining tasks not found in commercial data mining systems. These include basic statistics and visualization tools and tools for pre-processing, classification, and clustering, all available through an easy-to-use graphical user interface. On the other hand, Inflation and economic growth are economy-wide phenomena that affect positively or negatively everyone in an economy, either directly or indirectly. Inflation means a general increase in the price level. As Inflation rises, every dollar one owns buys a smaller percentage of a good or service. So the existence and nature of the relationship between Inflation and development have had a long history. Although conventional economic theories assert that Inflation and economic growth are negatively related, researchers found different models and datasets throughout the last seven decades in favor and against conventional beliefs. Therefore, seven found in the World Bank dataset will be used to help predict the expected economic growth or Inflation. To test and develop a decision support model to help predict economic growth using the WEKA data mining tool, a linear regression algorithm from the functions classifier, ZeroR algorithm from the rules classifier, RepTree algorithm from the trees classifier will be used. All these different algorithms and models will be evaluated using 75% train-test split and 10-fold cross-validation test options.

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