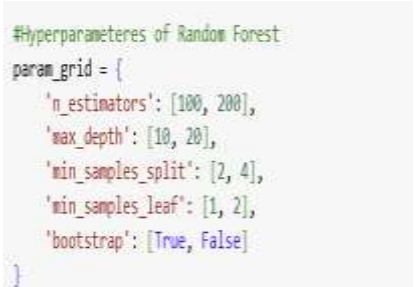
Model Development Phase Template

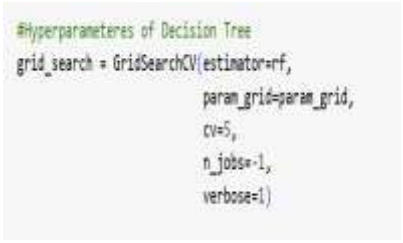
Date	18 June 2025
Team ID	SWTID1749880888
Project Title	Prosperity Prognosticator: Machine Learning for Startup Success Prediction
Maximum Marks	6 Marks

Model Selection Report

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, including Accuracy or F1 Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
Random forest	It is an ensemble of multiple decision trees that improves accuracy and reduces overfitting. It randomly samples data and features for each tree, then averages predictions.		**Accuracy score =81%**

Decision tree	It splits the dataset into branches based on feature values to make predictions. easy to interpret and visualize but can overfit on small or noisy datasets.		**Accuracy score =80%**
Knn model	It predicts the class of a sample based on the majority class of its closest neighbors. It is a non-parametric, instance-based learning algorithm. KNN requires feature scaling to perform effectively.		**Accuracy score =63%**