Project Initialization and Planning Phase

Date	15 July 2024
Team ID	739956
Project Title	Revolutionizing Automotive Resale: AI-Driven Prediction of Used Toyota Corolla Car Prices
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	The primary objective of the project "Revolutionizing Automotive Resale: AI-Driven Prediction of Used Toyota Corolla Car Prices" is to develop an advanced, data-driven prediction model that leverages artificial intelligence and machine learning techniques to accurately estimate the resale prices of used Toyota Corolla cars.
Scope	The scope of the project "Revolutionizing Automotive Resale: AI-Driven Prediction of Used Toyota Corolla Car Prices" encompasses the comprehensive process of developing an advanced, data-driven solution for accurate price predictions. This involves gathering data from various sources such as dealership records, online listings, and auction results, and ensuring the data is cleaned and integrated into a unified dataset
Problem Statement	
Description	"Revolutionizing Automotive Resale: AI-Driven Prediction of Used Toyota Corolla Car Prices" is an innovative project aimed at transforming the automotive resale market through the use of advanced artificial intelligence and machine learning techniques.
Impact	The "Revolutionizing Automotive Resale: AI-Driven Prediction of Used Toyota Corolla Car Prices" project is poised to significantly impact the automotive resale market by introducing unprecedented accuracy and transparency in price determination.

Proposed Solution	
Approach	The approach for "Revolutionizing Automotive Resale: AI-Driven Prediction of Used Toyota Corolla Car Prices" involves several key steps to develop an accurate and reliable prediction model. Initially, the project will focus on extensive data collection, gathering information from dealership records, online car listings, auction results, and historical resale data.
Key Features	Comprehensive Data Collection**:** Gather data from multiple sources including dealership records, online listings, auction results, and market reports. Data Cleaning and Integration: Ensure data consistency by cleaning and integrating diverse datasets, handling missing values and outliers. Real-Time Prediction System: Develop an API-driven system for real-time data input and immediate price predictions.

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	CPU/GPU specifications, number of cores	T4 GPU
Memory	RAM specifications	8 GB
Storage	Disk space for data, models, and logs	1 TB SSD
Software		
Frameworks	Python frameworks	Flask
Libraries	Additional libraries	scikit-learn, pandas, NumPy, matplotlib, seaborn
Development Environment	IDE, version control	Jupyter Notebook, Google Colab
Data		

Data	Source, size, format	Kaggle dataset, Toyota Corolla, csv