Project Initialization and Planning Phase

Date	8 JUNE 2024
Team ID	739968
Project Title	Movie Box Office Gross Prediction
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 this project is to develop a predictive model that accurately forecasts the box office revenue of movies based on various influencing factors."
Scope	"The project will focus on movies released in the last 10 years across major film industries. It will consider factors such as budget, genre, cast, director, marketing spend, and release date. The scope excludes non-theatrical releases and independent films with limited data availability."
Problem Statement	
Description	"Predicting the box office success of a movie is a challenging task due to the numerous variables that influence its performance. Traditional methods often fail to account for the complex interactions between these factors, leading to inaccurate predictions."
Impact	"Accurate box office predictions can significantly benefit movie studios and investors by enabling better decision-making regarding film production, marketing strategies, and distribution plans. It can also help in risk management and resource allocation."
Proposed Solution	
Approach	"machine learning techniques to build a predictive model. The process includes data collection, feature engineering, model selection,

	training, and validation. Techniques such as regression analysis, decision trees, and neural networks will be explored."
Key Features	"Utilization of a wide range of features including financial, social media, and historical data. Implementation of advanced machine learning algorithms for better accuracy. Continuous model improvement through feedback and new data integration."

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	"Description: CPU/GPU specifications, number of cores Specification/Allocation: Example: 2 x NVIDIA V100 GPUs"	2 x NVIDIA V100 GPUs
Memory	"Description: RAM specifications Specification/Allocation: Example: 32 GB RAM"	8 GB
Storage	"Description: Storage capacity and type Specification/Allocation: Example: 1 TB SSD"	1 TB SSD
Software		
Frameworks	"Description: Frameworks for developing the application interface and backend Specification/Allocation: Flask, Django"	Flask
Libraries	"Description: Essential libraries for data manipulation and machine learning Specification/Allocation: scikit-learn, pandas, numpy,	scikit-learn, pandas, numpy

	TensorFlow, Keras"	
Development Environment	"Description: Tools for writing and testing code, version control Specification/Allocation: Jupyter Notebook for interactive data analysis, Git for version control"	Jupyter Notebook, Git ,colab
Data		
Data	Historical box office data and movie metadata Specification/Allocation: Datasets from Kaggle, IMDb, Box Office Mojo, approximately 10,000 entries in CSV"	Kaggle dataset, 10,000 images