Project Initialization and Planning Phase

Date	20 June 2024
Team ID	739931
Project Title	Eudaimonia Engine: Machine LearningDelving Into Happiness Classification
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) report

The proposal report aims to the Eudaimonia Engine project, "Machine Learning Delving into Happiness Classification," is to develop a sophisticated machine learning model capable of accurately classifying and predicting happiness levels based on a variety of data inputs. This involves analyzing diverse datasets to uncover the key factors that influence happiness and creating a user-friendly application that provides insights and predictions on happiness. The maingoal is to contribute to the understanding of well-being, offering valuable tools and knowledge toindividuals and organizations to enhance overall happiness and quality of life.

Project Overview	
Objective	The primary objective of the Eudaimonia Engine in the context of machine learning and happiness classification is to develop and optimizealgorithms that can accurately classify and predict states of happiness based on various data inputs.
Scope	The main scope of the Eudaimonia Engine in happiness classification is to develop and optimize machine learning models that accurately identifyand predict states of happiness from diverse data sources.
Problem Statement	
Description	Addressing the challenges of data quality, feature extraction, and modeloptimization, while ensuring ethical considerations and data privacy.
Impact	It includes improved understanding of factors influencing happiness, enhanced mental health tools, and better user experience designs, ultimately contributing to personal well-being and societal happiness.
Proposed Solution	
Approach	The approach of the Eudaimonia Engine involves collecting and preprocessing diverse happiness-related data, extracting relevant

	features,training and optimizing machine learning models, and deploying these models in real-world applications while ensuring ethical considerations and data privacy.

Key Features	• Aggregates and processes diverse data sources to identify relevantIndicators of happiness. • Utilizes state-of-the-art machine learning techniques and hyperparameter tuning to enhance model accuracy and reliability. • Ensures ethical handling of data and privacy protection throughoutthe model development and deployment process.

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	CPU/GPU specifications, numberof 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, NumPy, pandas, matplotlib, seaborn
Development Environment	IDE	Jupyter Notebook, Google Colab
Data		
Data	Source, size, format	Kaggle dataset, 729MB, csv.