ProjectInitializationandPlanningPhase

Date	16th may 2025
TeamID	LTVIP2025TMID60515
Project Title	Revolutionizing Liver Care: Predicting Liver CirrhosisUsingAdvancedMachineLearning Techniques.
Maximum Marks	3 Marks

ProjectProposal(ProposedSolution)template

The proposal report aims to revolutionize liver care by leveraging advanced machine learning techniquestopredictlivercirrhosis,improvingearlydetectionandpatientoutcomes.Itaddresses the limitations of current diagnostic methods, promising enhanced accuracy, proactive patient management, and optimized healthcare resource utilization. Key features include a predictive model analyzing patient data and real-time risk assessment.

ProjectOverview	
Objective	The primary objective is to enhance the early detection and managementoflivercirrhosisbyimplementingadvancedmachine learning techniques, ensuring timely and accurate predictions.
Scope	The project aims to comprehensively assess and improve the liver cirrhosisdiagnosisprocessbyincorporatingmachinelearningfora more accurate and efficient healthcare system.
ProblemStatement	
Description	Currentmethodsoftenidentifylivercirrhosisatlaterstagesorrelyon general symptoms, which adversely affects early intervention and patient care.
Impact	Addressingtheseissueswillresultinimprovedearlydetection,better patient outcomes, and optimized use of healthcare resources, contributing to enhanced patient satisfaction and healthcare efficiency.
ProposedSolution	
Approach	Employingmachinelearningtechniquestoanalyzeandpredictthe risk of liver cirrhosis, creating a proactive and precise healthcare system.

Key Features	• Implementationofamachinelearning-basedpredictivemodel for liver cirrhosis. • Real-time risk assessment for early detection. • Continuous learning to adapt to evolving healthcare data.

ResourceRequirements

ResourceType	**Description**	**Specification/Allocation**
Hardware		
Computing Resources	CPU/GPUspecifications, number of cores	T4 GPU
Memory	RAM specifications	16 GB
Storage	Diskspacefordata,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	JupyterNotebook,Git,VS Code
Data		
Data	Source, size, format	Kaggledataset,950data entries, xls,csv dataset