Date	8th November 2023
Team ID	Team- 592083
Project Name	Disease Prediction Using Machine Learning
Maximum Marks	8 Marks

<u>Project Planning Phase</u>
Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)
Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story	Acceptance Criteria	Story points	Priority	Team Members
Sprint 1	Data Collection	DSP-1	As a data scientist, I want to collect and prepare a dataset of medical records and symptoms for training the machine learning model, so that the model can be trained to predict disease accurately.	Collect medical records and symptoms data from a variety of sources, such as hospitals, clinics, and research studies.	3	medium	Revanth,Kavya
Sprint 1	Feature Engineering	DSP-2	Split the data into training and test sets.	The data should be split into training and test sets in a ratio of 80% to 20%.	5	High	Minal
Sprint 2	Model Training	DSP-3	Develop and engineer features from the collected data that are relevant to predicting disease.	The features should be engineered in a way that is suitable for training the machine learning model.	5	High	Dharani, Minal, kavya
Sprint 2	Model Evaluation	DSP-4	Train a machine learning model to predict disease based on the engineered features.	The model should be trained to achieve a high level of accuracy on the held-out test set.	4	High	Revanth, Dharani

Sprint 3	Model Deployment	DSP-5	Deploy the trained machine learning model to production.	The model should be deployed to a production environment so that it can be used to predict disease for new patients.	2	Medium	Revanth
Sprint 3	User Interface (UI) Development	DSP-6	Develop a user interface that allows users to input their symptoms and receive a disease prediction.	The user interface should be easy to use and navigate. It should also implement security measures to protect user data.	5	High	Kavya, Dharani
Sprint 4	Integration with Electronic Health Records (EHR) Systems	DSP-7	Integrate the disease prediction model with EHR systems.	The model should be integrated with EHR systems so that clinicians can easily access predictions for their patients.	4	High	Revanth, Minal
Sprint 4	Performance Monitoring and Improvement	DSP-8	Monitor the performance of the disease prediction model in production and make improvements as needed.	The model's performance should be monitored on real-world data. Any performance issues should be identified and addressed.	2	Medium	kavya
Sprint 4	Documentatio n and Training	DSP-9	Develop documentation and training materials on how to use the disease prediction model.	The documentation and training materials should be clear, concise, and easy to understand.	3	Medium	Dharani
Sprint 4	Security and Compliance	DSP-10	Implement security and compliance measures to protect the privacy and security of patient data.	The model should be used in a safe and ethical manner.	5	High	Minal,Kavya,Dhara ni

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date(Actual)
Sprint-1	8	3 Days	5th Nov 2023	7th Nov 2023	8	5th Nov 2023
Sprint-2	9	4 Days	8th Nov 2023	11th Nov 2023		
Sprint-3	7	6 Days	12th Nov 2023	17th Nov 2023		
Sprint-4	10	3 Days	18h Nov 2023	20th Nov 2023		

Velocity:

Imagine we have a 16-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{sprint\ duration}{velocity}$$

AV= sprint duration/ Velocity = 20/16 = 1.43

Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies suchas Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

Backlog Chart:

DPUML Sprint 1 5 Nov – 7 Nov (5 issues)   0 0 0 Complete sprint •••

- 🔖 DPUML-23 Split the data into training and test sets. — TO DO ⌄
- 🔖 DPUML-25 Evaluate the model's performance on the held-out test set. — TO DO ⌄
- 🔖 DPUML-26 Train a machine learning model to predict disease based on the engineered features. — TO DO ⌄
- 🔖 DPUML-27 Develop a REST API that exposes the model's prediction capabilities. — TO DO ⌄
- 🔖 DPUML-28 Identify and develop relevant features from the collected data. — TO DO ⌄

+ Create issue

DPUML Sprint 2 8 Nov – 11 Nov (6 issues)   0 0 0 Start sprint •••

- 🔖 DPUML-33 Develop a plugin or other integration mechanism that allows clinicians to access predictions directly from within their EHR system. — TO DO ⌄
- 🔖 DPUML-31 Integrate the user interface with the REST API. — TO DO ⌄
- 🔖 DPUML-30 Identify and address any performance issues. — TO DO ⌄
- 🔖 DPUML-29 Develop a user interface that allows users to input their symptoms and receive a disease prediction. — TO DO ⌄
- 🔖 DPUML-34 Integrate the disease prediction model with EHR systems. — TO DO ⌄
- 🔖 DPUML-32 Monitor the performance of the disease prediction model in production — TO DO ⌄

Show desktop

Board chart:

PLANNING

- Timeline
- Backlog
- **Board**
- + Add view

DEVELOPMENT

- Code

- Documents
- Add shortcut
- Project settings

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Learn more

TO DO 5	IN PROGRESS	DONE ✓	+

∨ Everything else 5 issues

Split the data into training and test sets.

🔖 DPUML-23

Evaluate the model's performance on the held-out test set.

🔖 DPUML-25

Train a machine learning model to predict disease based on the engineered features.

🔖 DPUML-26

Develop a REST API that exposes the model's prediction capabilities.

🔖 DPUML-27

Time line chart:

PLANNING

- Timeline
- Backlog
- Board
- + Add view

DEVELOPMENT

- </> Code
- Documents
- Add shortcut
- Project settings

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Sprints	NOV 4–12	NOV 13–22
	DPUML Sprint 1 / DPUML Sprint 2	DPUML Sprint 3 / DPUML Sprint 4
DPUML-46 Sprint 1 Split the data into tr...	▬	
DPUML-49 sprint 2 Train a Machine mo...	▬	
DPUML-50 sprint 3 Deploy the API to a ...	▬	
DPUML-52 sprint 4Develop a user interf...	▬	
DPUML-53 sprint 5 Integrate the diseas...	▬	
DPUML-54 sprint 6 Monitor the perfor...	▬	
DPUML-55 sprint 7 Develop documenta...		▬
DPUML-56 sprint 8 mplement security a...		▬
DPUML-57 sprint 9 Develop personalize...		▬
DPUML-58 sprint 10 Develop recomme...		▬

+ Create Epic