

Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	16-11-23
Team ID	Team- 592603
Project Name	Smart Lender - Applicant Credibility Prediction for Loan Approval
Maximum Marks	20 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Sprint	Team Members
Project Setup & Infrastructure	USN-1	Set up the development environment with the required tools and frameworks to start the loan approval prediction project.	1	High	Sprint 1	Rohit
Data Collection	USN-2	Gather a diverse dataset of loan applicant information containing examples of both approved and defaulted cases for training the machine learning models.	2	High	Sprint 1	Praneeth
Data Preprocessing	USN-3	Preprocess the collected loan applicant dataset by handling missing values, encoding categorical variables, and scaling numerical features.	2	High	Sprint 2	Shiva
Model Development	USN-4	Explore and evaluate various classification algorithms (e.g., Decision Tree, Random Forest, KNN, XGBoost) to select the most suitable model for loan default prediction.	3	High	Sprint 2	Dhanush
Model Training	USN-5	Train the selected machine learning model using the preprocessed dataset and monitor its performance using appropriate evaluation metrics.	4	High	Sprint 3	Shiva
Model Tuning & Optimization	USN-6	Fine-tune hyperparameters and optimize the selected model's performance based on its evaluation and user feedback.	3	Medium	Sprint 3	Praneeth
Web App Development	USN-7	Develop a user-friendly web interface to integrate the trained model, allowing users to input applicant data for prediction.	4	Medium	Sprint 4	Rohit
Model Deployment & Integration	USN-8	Deploy the finalized model as an API or web service, integrating it into the web interface for loan approval prediction.	3	Medium	Sprint 4	Dhanush
Testing & Quality Assurance	USN-9	Conduct thorough testing of the model and web interface, identify any inaccuracies or issues, and optimize model performance based on testing results.	4	Medium	Sprint 5	Shiva

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

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint- 1	3	2 days	31 Oct 2023	2 Nov 2023	3	2 Nov 2023
Sprint – 2	5	2 days	3 Nov 2023	5 Nov 2023	8	5 Nov 2023
Sprint – 3	10	5 days	6 Nov 2023	11 Nov 2023	18	11 Nov 2023
Sprint – 4	1	4 days	12 Nov 2023	16 Nov 2023	19	16 Nov 2023
Sprint- 5	1	2 days	17 Nov 2023	19 Nov 2023	20	19 Nov 2023

Velocity:

Imagine we have a 29-days 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)

$$AV = \frac{\textit{sprint duration}}{\textit{velocity}} = \frac{20}{10} = 2$$

Burndown Chart:

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

Sprint burndown



3 points done, 4 points to go



Board section:

Projects / Smart Lendor Project

All sprints



Epic ▾

Sprint 4 ▾

Clear filters

GROUP BY

None ▾



TO DO 7 OF 7

IN PROGRESS

DONE ✓



Explore and evaluate various classification algorithms (e.g., Decision Tree, Random Forest, KNN, XGBoost) to select the most suitable model for loan default prediction.

MODEL DEVELOPMENT

SLP-15

3



Train the selected machine learning model using the preprocessed dataset and monitor its performance using appropriate evaluation metrics.

MODEL TRAINING

SLP-16

4



Backlog section:

Projects / Smart Lendor Project

Backlog

P

Epic

Import work

Insights

View settings

Epic ×

Issues without epic

>

Project Setup & Infrastructure

>

Data Collection

>

Data Preprocessing

>

Model Development

>

Model Training

>

Model Tuning & Optimization

+

Create epic

SLP-14 Preprocess the collected loan applicant dataset by handling missing val...

DATA PREPRO...

TO DO

2

SLP-15 Explore and evaluate various classification algorithms (e.g., Decision Tre...

MODEL DEVE...

TO DO

3

+

Create issue

2 issues

Estimate: 5

▼ Sprint 3 6 Nov – 11 Nov (2 issues)

7 0 0

Start sprint

...

SLP-16 Train the selected machine learning model using the preprocessed data...

MODEL TRAI...

TO DO

4

SLP-17 Fine-tune hyperparameters and optimize the selected model's performa...

MODEL TUNI...

TO DO

3

+

Create issue

2 issues

Estimate: 7

▼ Sprint 4 12 Nov – 16 Nov (2 issues)

7 0 0

Start sprint

...

SLP-18 Develop a user-friendly web interface to integrate the trained model, all...

WEB APP DEV...

TO DO

4

Timeline:

Projects / Smart Lendor Project

Timeline

Give feedback Share Export ...

Q

P

Status category

Epic

View settings

