

## Project Planning Phase

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

|               |                                          |
|---------------|------------------------------------------|
| Date          | 18-12-2023                               |
| Team ID       | Team-591938                              |
| Project Name  | Online Payments Fraud Detection Using ML |
| Maximum Marks | 20 Marks                                 |

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

Use the below template to create product backlog and sprint schedule

| Sprint   | Functional Requirement (Epic)          | User Story Number | User Story / Task                                                                                                                                                | Story Points | Priority | Team Members |
|----------|----------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|--------------|
| Sprint-1 | Data Collection and Preparation        | USN-1             | Identify relevant data sources.<br>Extract, transform, and load (ETL) data.<br>Handle missing or inconsistent data.                                              | 4            | High     | HARSH<br>DEV |
| Sprint-2 | Machine Learning Model Development     | USN-2             | Choose appropriate ML algorithms.<br>Train and fine-tune the model.<br>Evaluate model performance using relevant metrics.                                        | 4            | MEDIUM   | HARSH<br>DEV |
| Sprint-3 | Integration with Online Payment System | USN-3             | Develop API endpoints for communication.<br>Implement real-time data streaming for model updates.<br>Ensure seamless integration without affecting payment flow. | 5            | High     | HARSH<br>DEV |
| Sprint-4 | Real-time Monitoring and Alerts        | USN-4             | Set up monitoring infrastructure.<br>Define thresholds for suspicious activity.<br>Implement alerting mechanisms.                                                | 3            | High     | HARSH<br>DEV |

|          |                                                    |       |                                                                                                                           |   |        |              |
|----------|----------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------|---|--------|--------------|
| Sprint-5 | User Interface for Monitoring and Decision Support | USN-5 | Design and develop a dashboard for monitoring.<br>Implement features for manual review and decision support.              | 2 | medium | HARSH<br>DEV |
| Sprint-6 | Performance Optimization                           | USN-6 | Identify bottlenecks in the system.<br>Implement performance improvements.<br>Conduct load testing to ensure scalability. | 5 | medium | HARSH<br>DEV |

|          |                           |       |                                                                                                                                                                       |   |        |       |
|----------|---------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------|-------|
| Sprint-7 | Training Data enhancement | USN-7 | Implement feedback mechanisms for model improvement.<br>Periodically update training data based on new patterns.                                                      | 2 | medium | HARSH |
| Sprint-8 | Documentation             | USN-8 | Document the model architecture and parameters.<br>Create user guides for system administrators and analysts.<br>Conduct training sessions for relevant stakeholders. | 3 | High   | dev   |

|                 |                                |              |                                                                                                                                   |          |               |                            |
|-----------------|--------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|----------|---------------|----------------------------|
| <b>Sprint-9</b> | <b>Compliance and Security</b> | <b>USN-9</b> | <b>Conduct security audits.</b><br><b>Implement necessary compliance measures.</b><br><b>Regularly update security protocols.</b> | <b>5</b> | <b>medium</b> | <b>harsh</b><br><b>Dev</b> |
|-----------------|--------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|----------|---------------|----------------------------|

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

| <b>Sprint</b> | <b>Total Story Points</b> | <b>Duration</b> | <b>Sprint Start Date</b> | <b>Sprint End Date (Planned)</b> | <b>Story Points Completed (as on Planned End Date)</b> | <b>Sprint Release Date (Actual)</b> |
|---------------|---------------------------|-----------------|--------------------------|----------------------------------|--------------------------------------------------------|-------------------------------------|
| Sprint-1      | 4                         | 15 Days         | 17 NOV 2023              | 05 DEC 2023                      | 20                                                     | 17 Nov 2023                         |
| Sprint-2      | 4                         | 2 Days          | 18 Nov 2023              | 20 Dec 2023                      |                                                        | 17 Nov 2023                         |
| Sprint-3      | 5                         | 13 Days         | 20 Nov 2023              | 04 Dec 2023                      |                                                        | 17 Nov 2023                         |
| Sprint-4      | 3                         | 13 Days         | 17 Nov 2023              | 1 Dec 2023                       |                                                        | 17 Nov 2023                         |
| Sprint-5      | 2                         | 13 Days         | 17 Nov 2023              | 1 Dec 2023                       |                                                        | 17 Nov 2023                         |
| Sprint-6      | 5                         | 13 Days         | 17 Nov 2023              | 1 Dec 2023                       |                                                        | 17 Nov 2023                         |
| Sprint-7      | 2                         | 13 Days         | 17 Nov 2023              | 1 Dec 2023                       |                                                        | 17 Nov 2023                         |
| Sprint-8      | 3                         | 13 Days         | 17 Nov 2023              | 1 Dec 2023                       |                                                        | 17 Nov 2023                         |
| Sprint-9      | 5                         | 13 Days         | 17 Nov 2023              | 1 Dec 2023                       |                                                        | 17 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)

$$AV = 29/20 = 1.45$$

**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.

<https://www.visual-paradigm.com/scrum/scrum-burndown-chart/>

<https://www.atlassian.com/agile/tutorials/burndown-charts>

**Reference:**

<https://www.atlassian.com/agile/project-management>

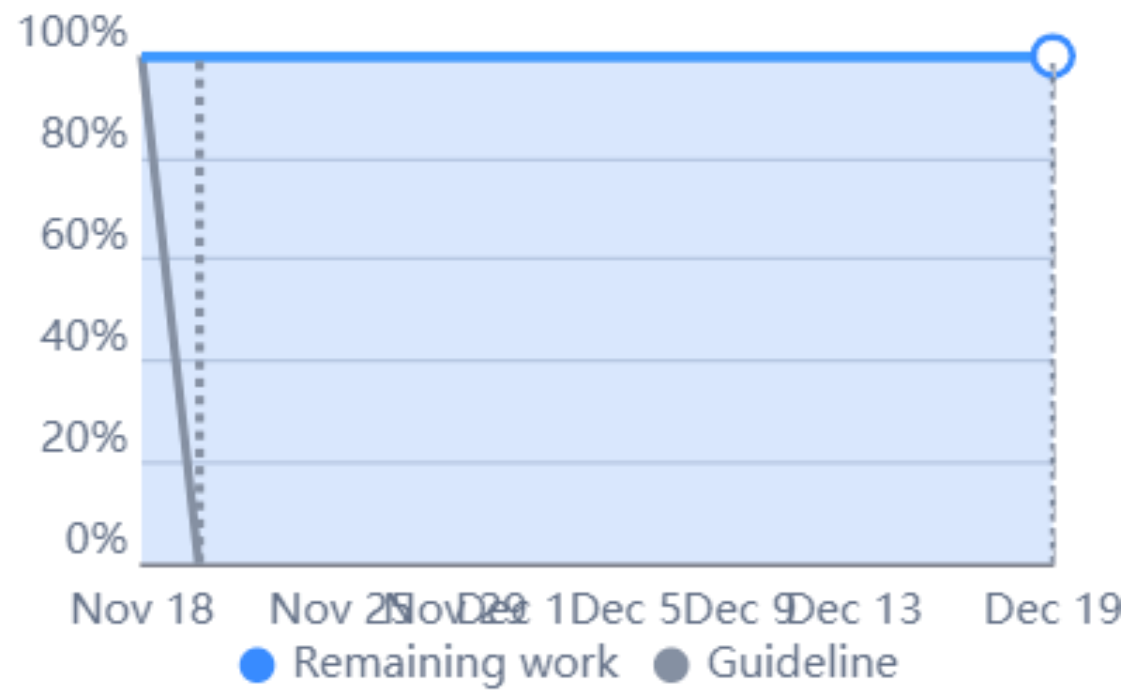
<https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software>

<https://www.atlassian.com/agile/tutorials/epics>

<https://www.atlassian.com/agile/tutorials/sprints> <https://www.atlassian.com/agile/project-management/estimation> <https://www.atlassian.com/agile/tutorials/burndown-charts>

**Burndown Chart:**

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



### Board section.

We have completed sprint 1 and 2. So we can see the remaining tasks on board.



VIT-HD

Software project

You're on the Free plan

UPGRADE

## PLANNING

Timeline

Backlog

Board

Goals

+ Add view

## DEVELOPMENT

Code

Project pages

Add shortcut

Project settings

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## All sprints

0 days remaining



Complete sprint



Q



Epic ▾

Sprint ▾

GROUP BY

Epic ▾

Insights

View settings

TO DO 12

IN PROGRESS 9

DONE 4 ✓



## ⌵ ⚡ VH-7 Machine Learning Model Development (3 issues) TO DO

Choose appropriate ML algorithms.

VH-8

1



Train and fine-tune the model.

VH-9

2



Evaluate model performance using relevant metrics.

VH-10

1



## ⌵ ⚡ VH-11 Integration with Online Payment System: (3 issues) TO DO

Implement real-time data streaming for model updates.

VH-17

2



Develop API endpoints for communication.

VH-16

2



Ensure seamless integration

Backlog section

Jira Software

Your work

Projects

Filters

Dashboards

Teams

Apps

Create

Q Search

GarbageClassification

Software project

PLANNING

Timeline

Backlog

Board

DEVELOPMENT

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Projects / GarbageClassification

Backlog

Q

S

Epic

Insights

Epic

Issues without epic

Project Setup and Infrastructure

Data Collection and Preprocessing

Model Development and Training

Model Deployment and Integration

Testing and Quality Assurance

+ Create epic

Sprint 3

9 Oct – 15 Oct

(2 issues)

6

4

0

Complete sprint

Model Development and Training

GAR-10

train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.

MODEL DEVELOPMENT AND TRAI...

IN PROGRESS

4

GAR-11

implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy.

MODEL DEVELOPMENT AND TRAI...

TO DO

6

+ Create issue

Sprint 4

16 Sep – 19 Sep

(1 issue)

1

0

0

Complete sprint

Model Deployment and Integration

GAR-13

deploy the trained deep learning model as an API or web service to make it accessible for garbage classification. integrate the ...

MODEL DEPLOYMENT AND INTEG...

TO DO

1

+ Create issue

Sprint 5

19 Sep – 25 Sep

(1 issue)

1

0

0

Complete sprint

Testing and Quality Assurance

GAR-15

conduct thorough testing of the model and web interface to identify and report any issues or bugs, fine-tune the model hyperp...

TESTING AND QUALITY ASSURANCE

TO DO

1

+ Create issue

Timeline

GarbageClassification  
Software project

- PLANNING
- Timeline
- Backlog
- Board
- DEVELOPMENT
- Code
- Project pages
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Timeline

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