

# Project Design Phase

## Phase 4

### Project Planning

Date	27 October 2023
Team ID	SI-GuidedProject-587558-1696963149
Project Name	A Sleep Tracking App For A Better Night's Rest
Maximum Marks	8 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	Project setup & Infrastructure	USN-1	Set up the development environment with the required tools and frameworks to start the sleep tracking app.	2	High	Akshaj
Sprint-1	Development environment	USN-2	Gather necessary resources and libraries for sleep data collection and storage.	3	High	Armaano
Sprint-2	Data collection	USN-3	Implement data collection methods, either through user input or integration with wearable devices.	5	High	Akshaj
Sprint-2	Data preprocessing	USN-4	Ensure the integration with wearable devices for automatic sleep tracking is functional.	4	High	Pranav
Sprint-3	User Data Analysis	USN-5	Store user sleep data in a secure manner, ensuring data privacy. Begin implementing basic sleep data analysis features for insights into sleep patterns.	3	High	Armaano
Sprint-3	User Experience Enhancement	USN-6	Develop the user interface for the app, focusing on intuitive design and data presentation. Implement a smart alarm feature for optimized wake-up times based on sleep data.	6	medium	Armaano
Sprint-4	Content Library	USN-7	Create a library of calming sounds, white noise, and educational content related to sleep.	4	medium	Pranav
Sprint-5	Testing & quality assurance	USN-8	Conduct thorough testing of the app to identify and report any issues or bugs. Fine-tune the app's algorithms and features based on user feedback and testing results.	1	medium	Akshaj

**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	5	1 Day	28 Oct 2023	29 Oct 2023	27	9 Nov 2023
Sprint-2	9	3 Days	29 Oct 2023	1 Nov 2023		
Sprint-3	9	2 Days	1 Nov 2023	3 Nov 2023		
Sprint-4	4	2 Days	3 Nov 2023	5 Nov 2023		
Sprint-5	1	1 Days	5 Nov 2023	6 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)

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

$$AV = 27/10 = 2.7$$

## **Burndown Chart:**

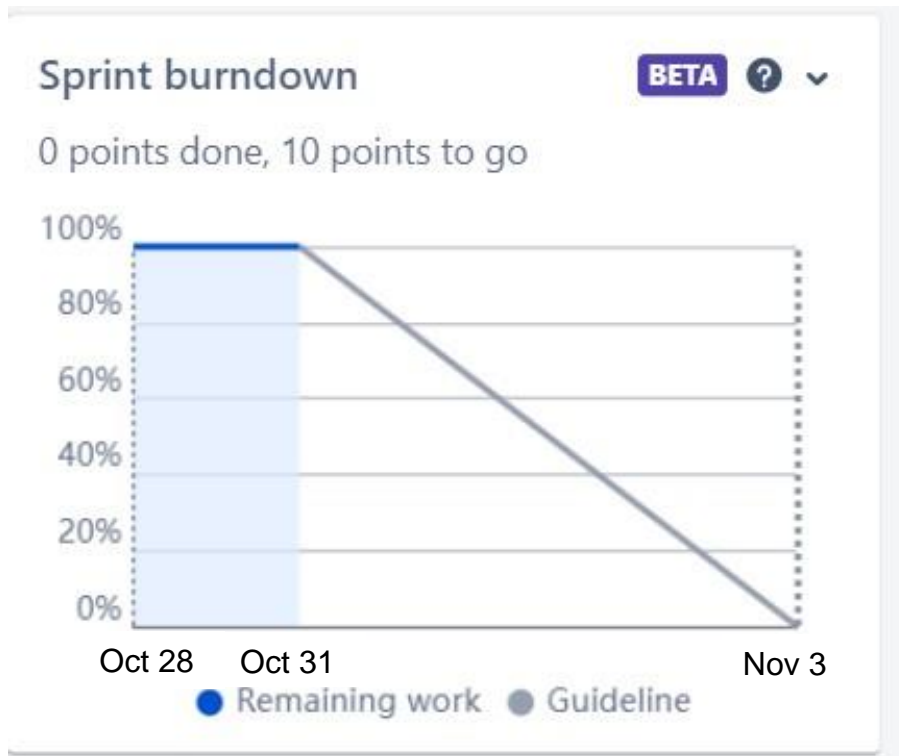
A burndown chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

<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:



## Board section.

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

The screenshot displays the Jira Board interface for the 'GarbageClassification' project. The left sidebar contains navigation options under 'PLANNING' (Timeline, Backlog, Board) and 'DEVELOPMENT' (Code, Project pages, Add shortcut, Project settings). The 'Board' option is selected. The main area shows the 'All sprints' view with columns for 'TO DO 3', 'IN PROGRESS 1', and 'DONE'. The 'TO DO' column contains three tasks: 'implement data augmentation techniques...' (GAR-11), 'deploy the trained deep learning model...' (GAR-13), and 'conduct thorough testing of the model...' (GAR-15). The 'IN PROGRESS' column contains one task: 'train the selected deep learning model...' (GAR-10). The 'DONE' column is empty. Each task card includes a description, a category label (e.g., 'MODEL DEVELOPMENT AND TRAINING'), a progress indicator, and an assignee icon.

Projects / GarbageClassification

### All sprints

Search [ ] 5 Epic Sprint

**TO DO 3**

- implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy.  
**MODEL DEVELOPMENT AND TRAINING**  
GAR-11 6
- deploy the trained deep learning model as an API or web service to make it accessible for garbage classification. integrate the model's API into a user-friendly web interface for users to upload images and receive garbage classification results.  
**MODEL DEPLOYMENT AND INTEGRATION**  
GAR-13 1
- conduct thorough testing of the model and web interface to identify and report any issues or bugs. fine-tune the model hyperparameters and optimize its performance based on user feedback and testing results.  
**TESTING AND QUALITY ASSURANCE**  
GAR-15 1

**IN PROGRESS 1**

- train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.  
**MODEL DEVELOPMENT AND TRAINING**  
GAR-10 4

**DONE** ✓

## Backlog section

Jira Software

Your work

Projects

Filters

Dashboards

Teams

Apps

Create

Q Search

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GarbageClassification

Software project

PLANNING

Timeline

Backlog

Board

DEVELOPMENT

Code

Project pages

Add shortcut

Project settings

You're in a team-managed project

Projects / GarbageClassification

Backlog

Q

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Epic

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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)

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)

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)

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

Jira Software

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GarbageClassification

Software project

PLANNING

Timeline

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DEVELOPMENT

Code

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Project settings

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View settings

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Status category

Epic

	SEP	OCT	NOV	DEC	JAN '24	FEB '24	MAR '24	APR '24
Sprints	Sprint 5	Sprint 3						
▼ GAR-1 Project Setup and Infrastructure								
GAR-2 Set up the developme... DONE								
GAR-3 Gather a diverse datas... DONE								
▼ GAR-4 Data Collection and Preprocessing								
GAR-6 Explore and evaluate ... DONE								
GAR-5 Preprocess the collect... DONE								
▼ GAR-9 Model Development and Training								
GAR-10 train the selec... IN PROGRESS								
GAR-11 implement data aug... TO DO								
▼ GAR-12 Model Deployment and Integra...								
GAR-13 deploy the trained d... TO DO								
▼ GAR-14 Testing and Quality Assurance								
GAR-15 conduct thorough t... TO DO								
+ Create Epic								

▶

Today

Weeks

Months

Quarters

1

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You're in a team-managed project

Learn more