# Project Planning Phase

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

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|---|---|
| Date | 28 October 2022 |
| Team ID | Team-592512 |
| Project Name | Project - Image Caption Generation |
| 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 | Virtual Environment Creation | USN-1 | Set up Virtual Environment and Install required Libraries | 1 | High | Surya R T |
| Sprint-1 | Version Control | USN-2 | Install Git and other required tools (Frame Work) | 1 | Medium | Surya R T |
| Sprint-2 | Data Collection | USN-3 | Collect Images and related Caption required for training the model | 2 | High | Kavin R |
| Sprint-2 | Data Preprocessing | USN-4 | Process the Images and make it a suitable format for training the model. | 2 | High | Kavin R |
| Sprint-3 | Model Selection | USN-5 | Choose the Appropriate Architecture like VGG 16 or CNN for extracting features and LSTM for Caption Generation | 5 | High | Shreeharan K |
| Sprint-3 | Model Development | USN-6 | Train the selected model with the preprocessed data and Monitor its performance | 3 | High | Surya R T |
| Sprint-3 | Robust and Accuracy | USN-7 | Use Augmentation to get more related images and train the model. | 5 | Medium | Shreeharan K |
| Sprint-4 | Model Deployment & Integration | USN-8 | Deploy the trained image caption generation model as an API or web service to allow users to submit images and receive generated captions. | 4 | Medium | Shreeharan K |
| Sprint-5 | Testing | USN-9 | Test the deployed model and website and identify issues. | 1 | Low | Shreeharan K |

**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 | 2 | 1 Days | 26 Oct 2023 | 26 Oct 2023 | 20 | |
| Sprint-2 | 4 | 1 Days | 27 Oct 2023 | 27 Oct 2023 | 20 | |
| Sprint-3 | 12 | 5 Days | 28 Oct 2023 | 1 Nov 2023 | 20 | |
| Sprint-4 | 4 | 2 Days | 02 Nov 2023 | 03 Nov 2023 | 20 | |
| Sprint-5 | 1 | 1 Days | 04 Nov 2022 | 04 Nov 2022 | 20 | |

**Velocity:**

Imagine we have a 10-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)

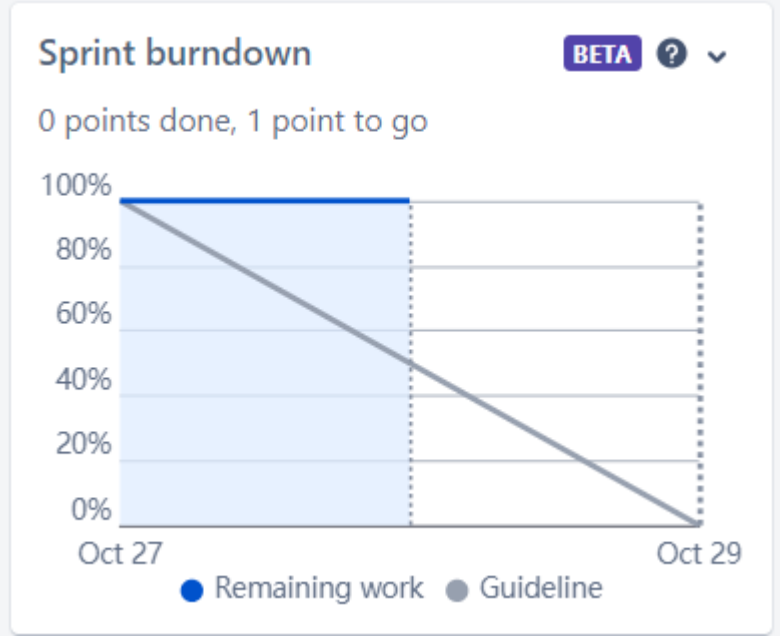
V1(Sprint 1) = 1 / 2 = 0.50
V2 (Sprint 2) = 1 / 4 = 0.25
V3 (Sprint 3) = 5 / 12 = 0.41
V4 (Sprint 4) = 2 / 4 = 0.50
V5 (Sprint 5) = 1 / 1 = 1

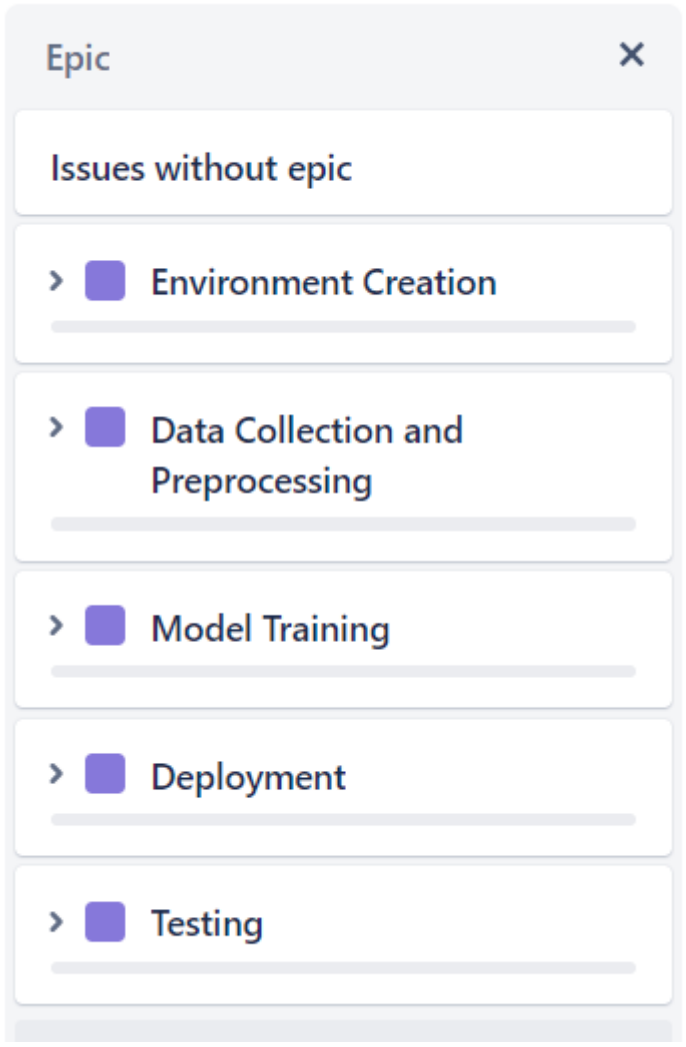
Total Sprint Duration= 10 days
Total Velocity = 23 points

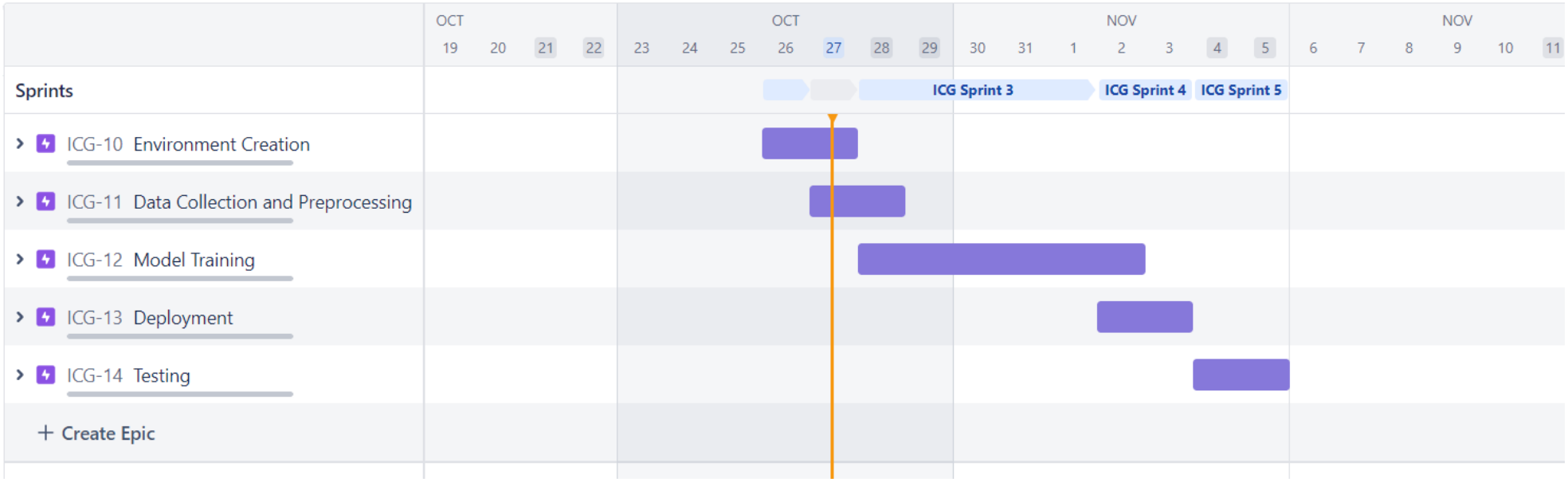
Average Velocity (AV) = Sprint Duration / Velocity = (1+1+5+2+1)/(2+4+12+4+1)= 0.43

**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 such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.




Epic
Issues without epic
Environment Creation
Data Collection and Preprocessing
Model Training
Deployment
Testing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Sprints
ICG Sprint 3
ICG Sprint 4
ICG Sprint 5
ICG-10 Environment Creation
ICG-11 Data Collection and Preprocessing
ICG-12 Model Training
ICG-13 Deployment
ICG-14 Testing
Create Epic

**ICG Sprint 1** 26 Oct – 27 Oct (2 issues) — 2 0 0 — Complete sprint

| | | | | |
|---|---|---|---|---|
| ICG-1 Install Git and other required tools (Frame Work) | ENVIRONMENT CREATI... | TO DO | 1 | |
| ICG-2 Set up Virtual Environment and Install required Libraries | ENVIRONMENT CREATI... | TO DO | 1 | |

+ Create issue

**ICG Sprint 3** 28 Oct – 2 Nov (3 issues) — 13 0 0 — Complete sprint

| | | | | |
|---|---|---|---|---|
| ICG-5 Choose the Appropriate Architecture like VGG 16 or CNN for extracting features and LSTM for Ca... | MODEL TRAINING | TO DO | 5 | K |
| ICG-6 Train the selected model with the preprocessed data and Monitor its performance | MODEL TRAINING | TO DO | 3 | K |
| ICG-7 Use Augmentation to get more related images and train the model. | MODEL TRAINING | TO DO | 5 | |

+ Create issue

**ICG Sprint 4** 2 Nov – 3 Nov (1 issue) — 4 0 0 — Complete sprint

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|---|---|---|---|---|
| ICG-8 Deploy the trained image caption generation model as an API or web service to allow users to submit ... | DEPLOYMENT | TO DO | 4 | ST |

+ Create issue

**ICG Sprint 5** 4 Nov – 5 Nov (1 issue) — 1 0 0 — Complete sprint

| | | | | |
|---|---|---|---|---|
| ICG-9 Test the deployed model and website and identify issues. | TESTING | TO DO | 1 | |

+ Create issue