

Visualizing and Predicting Heart Diseases with an Interactive Dash Board

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Project Planning Phase

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

Product Backlog, Sprint Schedule, and Estimation

Use the below template to create product backlog and sprint schedule

| Sprint | Functional Requirement (Epic) | UserStory Number | User Story / Task | Story Points | Priority | Team Members |
|---------------|--------------------------------------|-------------------------|---|---------------------|-----------------|---------------------|
| Sprint-1 | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming my password. | 2 | High | 1 |
| Sprint-1 | | USN-2 | As a user, I will receive confirmation email once I have registered for the application | 1 | High | 2 |
| Sprint-2 | | USN-3 | As a user, I can register for the application through Facebook | 2 | Low | 4 |
| Sprint-1 | | USN-4 | As a user, I can register for the application through Gmail | 2 | Medium | 3 |
| Sprint-1 | Login | USN-5 | As a user, I can log into the application by entering email & password | 1 | High | 2 |
| Sprint-2 | Dashboard | USN-6 | Profile - view & update your profile | 2 | High | 5 |
| Sprint-1 | | USN-7 | Change Password - user can change the password | 1 | High | 2 |
| Sprint-1 | | USN-8 | Home - Analyze your Heart | 2 | High | 5 |

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|---------------|--------------------------------------|-------------------------|---|---------------------|-----------------|---------------------|
| Sprint-3 | | USN-9 | <p>The user will have to fill in the below 13 fields for the system to predict a disease</p> <ul style="list-style-type: none"> -Age in Year -Gender -Chest Pain Type -Fasting Blood Sugar -Resting Electrographic Results(Restecg) -Exercise Induced Angina(Exang) -The slope of the peak exercise ST segment -CA – Number of major vessels colored by fluoroscopy -Thal -Trest Blood Pressure -Serum Cholesterol -Maximum heart rate achieved(Thalach) -ST depression induced by exercise(Oldpeak) | 2 | High | 5 |
| | | USN-10 | View Doctors - view doctor detail by searching by names or filter by specialty | 1 | Medium | 4 |
| Sprint-3 | System Requirment | USN-11 | <p>I. Hardware Requirement</p> <ul style="list-style-type: none"> i. Laptop or PC • I5 processor system or higher | 2 | High | 2 |

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|---------------|--------------------------------------|-------------------------|--|---------------------|-----------------|---------------------|
| | | | <ul style="list-style-type: none"> • 4 GB RAM or higher • 128 GB ROM or higher ii. Android Phone (12.0 and above) | | | |
| Sprint-3 | | USN-12 | II. Software Requirement iii. Laptop or PC <ul style="list-style-type: none"> • Windows 10 or higher • Android Studio | 2 | Medium | 2 |
| Sprint-4 | Dashboard | USN-13 | Query | 1 | High | 1 |
| | | USN-14 | Toll Free | 1 | High | 1 |
| | | USN-15 | Ratings | 2 | Medium | 2 |
| | | USN-16 | Verification | 2 | High | 2 |
| | | USN-17 | Validation | 1 | High | 2 |
| | | USN-18 | Feedback – send feedback to the Admin | 2 | Medium | 3 |

Project Tracker, Velocity

| 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 | 20 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 20 | 29 Oct 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 18 | 06 Nov 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 11 Nov 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 19 | 19 Nov 2022 |

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)

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

Reference:

<https://ieeexplore.ieee.org/document/9619208/>