Agile Scrum Sprint Planner (ASSP)

Description

Agile Scrum Sprint Planner is a full-stack Sprint planner web application designed to encourage developers and team leaders to manage their time better and prioritize their development goals.

With integrated tools like Scrum poker and AI based story point estimation, the workload is shifted away from the Scrum Masters to our software, which can handle the task at hand efficiently.

User Stories

Story 1

As a Scrum Master, I want to be able to create a new Backlog Item in a Sprint so that I can ensure clarity in task management and responsibilities.

Acceptance Criteria:

- The Scrum Master can create a new Backlog Item.
- The new Backlog Item is added to the Sprint backlog.
- The Scrum Master can view the newly created Backlog Items from the Sprint details page.

Story 2

As a Product Owner, I want to be able to prioritize and edit my Backlog Items based on their importance and complexity so that I can ensure that my team is working on the most critical features first.

Acceptance Criteria:

- A user (Product Owner specifically) can view a list of all Backlog Items in the product backlog.
- The Product Owner can edit the details of each Backlog Item.
- The updated details are reflected in the Sprint details page, showing the revised priority and information for each Backlog Item.

Story 3

As a Scrum Master I want to be able to view and manage the speed of my team so that I can make informed decisions about how much work we can realistically accomplish in future Sprints.

Acceptance Criteria:

- A user (Scrum Master specifically) can view the total speed of their team for each Sprint.
- The Scrum Master can view a breakdown of the speed by individual developer.
- The app provides a historical record of the team's speed allowing for trend analysis and forecasting.

Story 4

As a developer, I want to be able to see the tasks I'm supposed to be working on and an estimate of how long they're going to take, so that I can manage my priorities better.

Acceptance Criteria:

- The developer can view a list of assigned tasks, including title, due date, and status (to-do, in progress, completed).
- Each task shows an estimated time to complete, which can be edited by the developer or the project manager.

Story 5

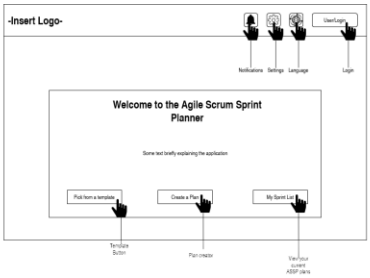
As a Product Owner, I want to be able to generate reports on the progress of my Backlog Items and team performance so that I can assess our development efficiency and make data-driven decisions.

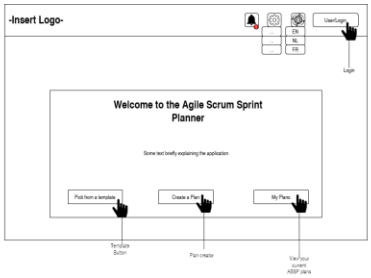
Acceptance Criteria:

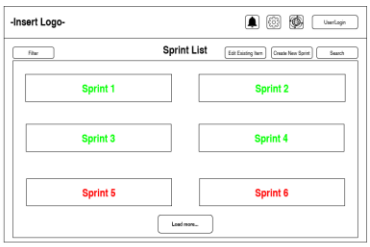
- A user (Product Owner specifically) can access a reporting dashboard that summarizes the status of all Backlog Items in the current Sprint.
- The Product Owner can generate reports that include metrics such as completed items, items in progress, and items not started.
- The report provides insights into team performance, including average completion time for tasks and the velocity of the team over multiple Sprints.

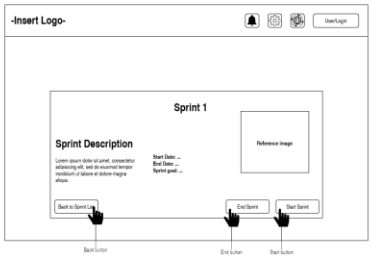
Wireframe

- Home page: Header with a logo and navigation bar. Hero with a small welcome to the application.
- Settings: User profile management (name, email, password, phone number, etc.) not all of which need to be filled in. Team settings (goals, sprint durations, etc.)
- Sprints list page: Calendar for upcoming sprints, button to create new sprint plans and a filter/search function.
- Sprint details page: More detailed information about the current sprint (start, end, goal, etc.) and a button to start and end the sprint.









Acceptance Criteria

1. The app allows teams to create/plan and manage/schedule multiple Sprints.
2. Users (Scrum Masters specifically) can prioritize and organize product backlog items into manageable sprints.
3. The app has a robust analytics system where team performance can be analysed, and trends can be identified.
4. Teams can track their tasks, story points, and speed in real-time.
5. The user interface is intuitive and can adapt to various screen sizes and different devices.

Domain model

Entities

- Team represents an Agile team.
- Product represents a product that teams can work on.
- User represents a user of the ASSP app.
- Sprint represents an iteration or timed-boxed period.
- Backlog Item represents a product backlog item that needs to be implemented.

Relationships

Team:

- One-to-Many: A team can have multiple users, but each user is associated with only one team.
- One-to-Many relationship with sprint (through an intermediate table Sprint Assignment): A team can have multiple sprints and a sprint can be assigned to one team.

Product:

- One-to-Many: A product can have multiple backlog items, but each backlog item is associated with only one product.

User:

- Many-to-Many relationship with Product (through an intermediate table Product Interest): A User can be interested in multiple products and a product can have multiple users interested in it.
- Many-to-Many: A user can participate in multiple sprints and a sprint can have multiple users.

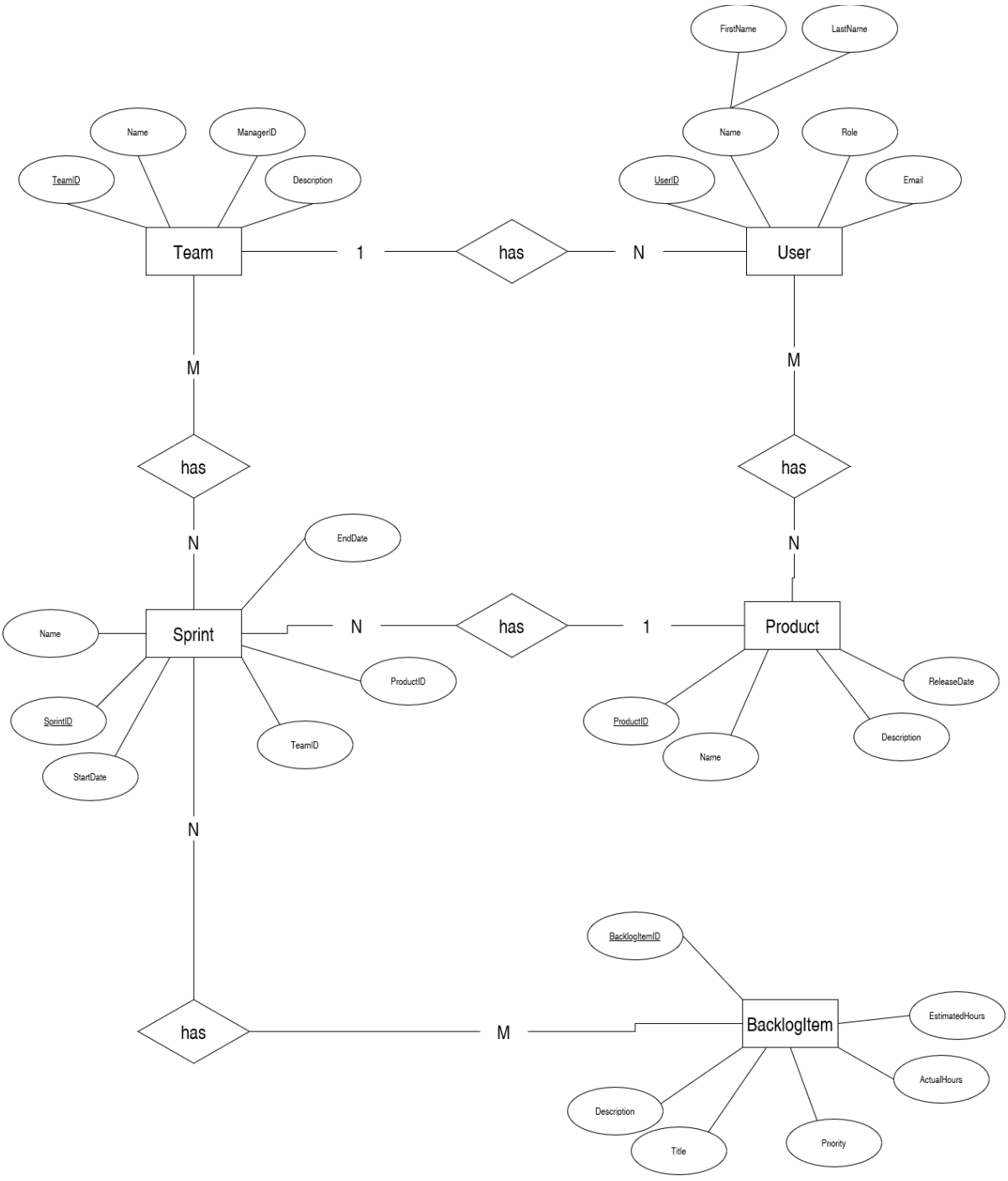
Sprint:

- Belongs to one Team (many-to-one): Each sprint belongs to exactly one team.

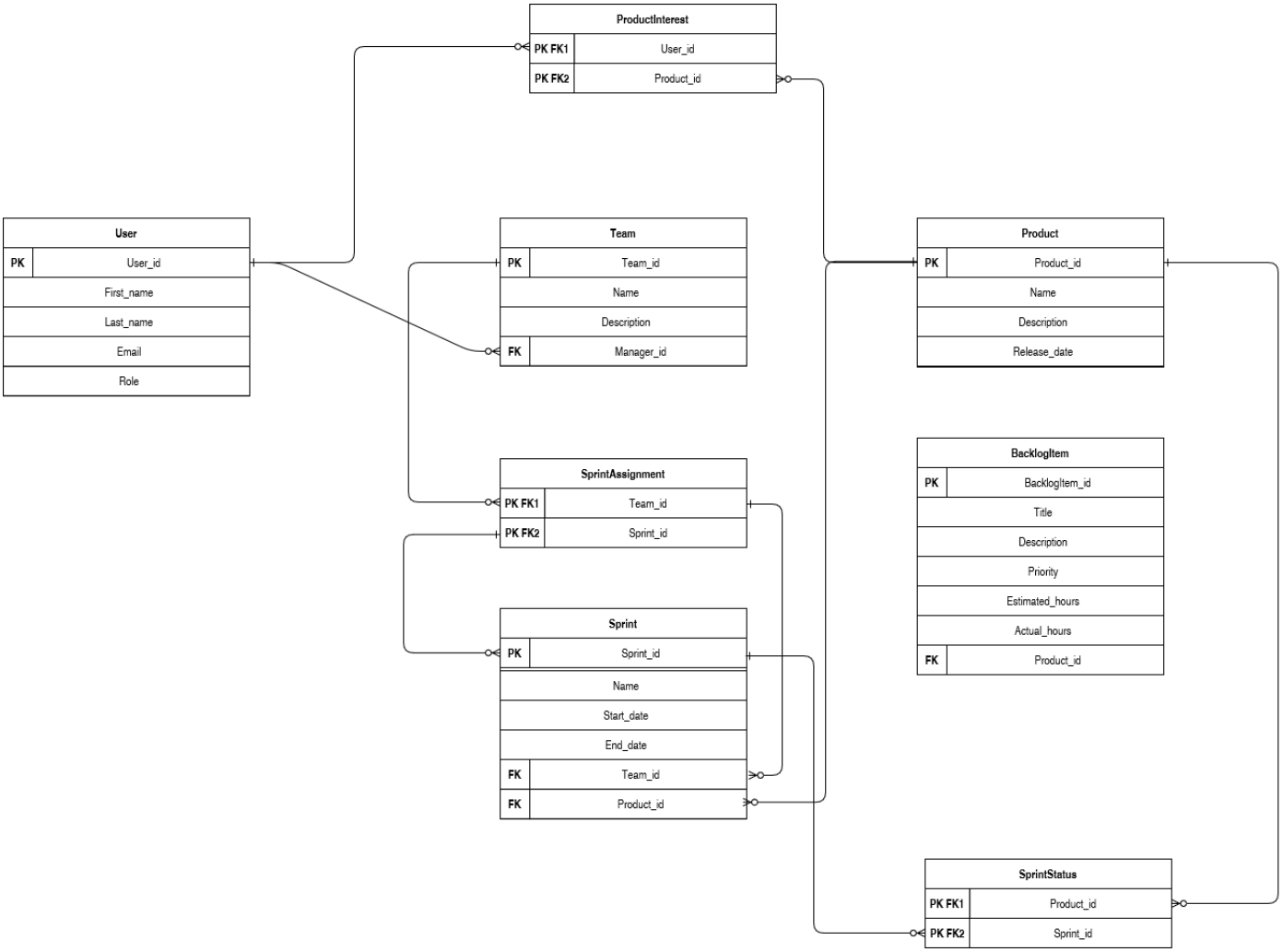
Backlog Item:

- Many-to-Many relationship with sprint (through an intermediate table Sprint Status): A backlog item can be part of multiple sprints and a sprint can have multiple backlog items.
- Belongs to one Product (many-to-one): Each backlog item belongs to exactly one product.

Conceptual Model



Logical Model


ProductInterest
PK FK1
User_id
PK FK2
Product_id
User
PK
User_id
First_name
Last_name
Email
Role
Team
PK
Team_id
Name
Description
FK
Manager_id
Product
PK
Product_id
Name
Description
Release_date
SprintAssignment
PK FK1
Team_id
PK FK2
Sprint_id
BacklogItem
PK
BacklogItem_id
Title
Description
Priority
Estimated_hours
Actual_hours
FK
Product_id
Sprint
PK
Sprint_id
Name
Start_date
End_date
FK
Team_id
FK
Product_id
SprintStatus
PK FK1
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