Team Mavericks - RU Hungry Project: Product Backlog Refinement and Estimation

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This assignment documents the process of Product Backlog Refinement and Estimation for our project. Following the professor's prioritized backlog and MVP definition, our team refined the highest-priority features into detailed user stories, complete with acceptance criteria and dependencies. We then applied Planning Poker estimation to assign story points and complexity values, ensuring consensus across the team. A grooming and development status tracker was created to monitor progress from refinement to demo readiness. Finally, a Release Plan was outlined and implemented in Trello, showing the distribution of features, effort, and complexity across three releases (MVP, Spring, and Fall).

I. Refinement:

Story 1: Browse Events List

- *As a student, I want to browse a list of upcoming free food events so that I don't miss opportunities*
- Acceptance Criteria
  - ☐ Events show name, time, location, and food type
  - ☐ List can be sorted and filtered
  - ☐ Input validations (e.g. empty search query handled).
- Priority: High
- Story Points:
- Dependencies: API integration with ProfLink

Story 2: Interactive Map

- *As a student, I want to view events on an interactive campus map so that I can easily find the location.*
- Acceptance Criteria
  - ☐ Map displays pins for active events.
  - ☐ Pin click shows event details. [https://docs.mapbox.com/help/tutorials/custom-markers-gl-js/?step=0]
  - ☐ Map zoom and navigation functional
- Priority: High
- Dependencies: Mapbox/OpenStreetMap API

Story 3: Push Notifications

- As a student, I want to receive push notifications when a free food event is nearby so that I can decide quickly.
- Acceptance Criteria
  - ☐ Notifications sent based on location/time.
  - ☐ Tapping notification opens event details.
  - ☐ Users can enable/disable notifications.
- Priority: High
- Dependencies: Expo Push Service

Story 4: Calendar & Dashboard

- As a student, I want a visually color-coded calendar/dashboard with registered and unregistered events so that I can plan better.
- Acceptance Criteria:
  - ☐ Events displayed in calendar format.
  - ☐ Registered events show in bold or highlighted.
  - ☐ Different event types have unique colors.
- Priority: Medium
- Dependencies: Login & profile integration

Story 5: Github Repo Setup

- *As a developer, I want to initialize the github repository, with proper privileges set up for all the team members. So, that all the team members can push and commit the changes, for code maintenance and version control*
- Acceptance Criteria
  - ☐ Github repo setup
  - ☐ Permissions defined
  - ☐ Explicit Backend and Frontend directories initialized for feature integration
- Priority: High
- Dependencies: Github Account Access

Story 4: Search & Filter

- As a student, I want to filter events by time, location, or type of food so that I can find the ones I'm most interested in.
- Acceptance Criteria:
  - ☐ Filter by category (pizza, snacks, drinks, etc.).
  - ☐ Search by keyword.
  - ☐ Sorting by date/time works correctly.

- Priority: Medium
- Dependencies: Event database.

Grooming/Dev Progress Tracker Table:

Story	Grooming Status	Dev Status
Browse Events List	Grooming Complete	Dev Not Started
Interactive Map	In Grooming	Dev Not Started
Push Notifications	Not Started	Dev Not Started
Calendar & Dashboard	Not Started	Dev Not Started
Search & Filter	Grooming Complete	Dev Not Started
Github Repo Setup	Grooming Complete	Dev Complete

II. Estimation:

Estimation was conducted using the Planning Poker technique. Each team member independently proposed story point values. When estimates differed, the team discussed the reasoning until consensus was reached. This ensured shared understanding of scope and complexity.

Complexity Values Table:

Story	Story Points	Complexity
Browse Events List	5	Medium (2)
Interactive Map	8	High (3)
Push Notifications	5	Medium (2)
Search & Filter	8	High (3)

Calendar & Dashboard	13	High (3)
Github Repo Setup	3	Low (1)

Effort Estimation of User Stories Table:

Story	Effort Points	Notes
Browse Events List	5	API fetch + UI
Interactive Map	8	Map API + event overlay
Push Notifications	5	Location triggers + push setup
Search & Filter	8	Query logic + UI
Calendar & Dashboard	13	Complex UI + state management

III. Expected Outcomes:

The outcome of this assignment is a refined and prioritized backlog with clear user stories, acceptance criteria, and dependencies. Each story has been estimated with story points and complexity values using Planning Poker, and a release plan has been created in Trello to organize features across the MVP, Spring, and Fall releases. This ensures transparency in scope, effort, and progress tracking from grooming through demo readiness.

Assumptions:

- Team Velocity = 13 points/sprint
- Sprint Length = 3 weeks

Sprint Allocation and Story Point Distribution Table:

Sprint	Planned Stories	Points
Sprint 1	Browse Events List (5) + Search & Filter (8)	13
Sprint 2	Push Notifications (5) + Interactive Map (8)	13
Sprint 3	Calendar & Dashboard (13)	13

Test Prototype: End of Sprint 1

Release 1 (MVP): End of Sprint 2 → Browse list, map, push notifications, search/filter.
Release 2: Sprint 3 → Calendar/dashboard.

Release Plan (Additions) Table:

Release	Features	Total Story Points	Total Complexity
Release 1 (MVP)	Browse Events List (5), Search & Filter (8), Push Notifications (5), Interactive Map (8)	26	10
Release 2	Calendar & Dashboard (13)	13	3
Release 3 (Future Enhancements)	Github Repo Setup (3) + additional features TBD	3	1