Milestone 4 Progress Evaluation

Tasteful Panthers: Food Recommendation at Dining Halls

Team Members
Alex Laureano, elaureano2021@my.fit.edu
Jiahao Shu, jshu2023@my.fit.edu
Anthony Hordesky, ahordesky2022@my.fit.edu
Lexi Franklin, afranklin2021@my.fit.edu

Faculty Advisor
Philip Chan, pkc@cs.fit.edu

Current Milestone Task Matrix

Task	Completion	Alex	Jiahao	Anthony	Lexi	To do
Notifications	80%	0%	0%	100%	0%	Time Tracking/PDH Duration
Writing Reviews	70%	100%	0%	0%	0%	Image & Video Display
Reading/Searching Reviews	80%	0%	100%	0%	0%	UI Change
User Profile	70%	0%	0%	0%	100%	User's meal recommendation and average time spent at pdh need to be saved
Personalized Meal Recommendation Algorithm	25%	25%	25%	25%	25%	Implementation

Discussion of Tasks

Notifications/GPS - We have had notifications and GPS functionality since the completion of milestone 3. This milestone, however, we changed the geolocation service to an active flutter library called geolocator. We were using a deprecated library that we cloned and accessed privately via GitHub. This was probably not the best option moving forward with our app, which is why we changed. Coupled with the workmanager library, this new geofencing functionality allows for foreground location tracking every 1 second and background tracking every 1 minute. These times can be changed once we get an accurate idea on battery efficiency. Heads-up notifications are still working every time a user enters the geofence but with new rerouting capabilities when the user clicks on the alert. The enter notification redirects to the dashboard, and once average PDH duration is calculated, the notification sent halfway through the user's visit will redirect them to the review/suggestion creation portal. Tasks to be completed early into milestone 5 are time tracking and the review/suggestion creation reminder.

Writing Reviews - We replaced the scroll/search bar for guests to search meals into a button to show favorite meals, as well as 3 buttons which split the alphabet into 3 sections. Images and video saving has been implemented, but we have not yet figured out how to display them with reviews/suggestions. That will be completed in the upcoming milestone.

Reading/Searching Review - The search bar supports finding reviews by specific names, keywords, and tags, and the filter allows users to display only results above a selected star rating. Users can also click on a review to expand and view its detailed content. Next, a more intuitive and user-friendly UI needs to be designed and integrated to further enhance the overall experience.

User Profile - The user profile currently displays the user's basic information, as well as their recent reviews and recommendations. The next task to complete will involve including a user's average PDH duration, which was pushed due to switching the geolocator. The user profile will also be updated to display a user's favorite dishes as they record them.

Personalized Meal Recommendation Algorithm - We have basics of how the algorithm will calculate each user's personalized meal recommendation, based on how closely they align with other users. What remains for this task is implementation.

Discussion of Contribution
Alex Laureano: I handled review functionality. Previously there was a scroll/search bar for guests to search meals, but it has been replaced with a button to show favorited meals, as well as 3 buttons which split the alphabet into 3 sections. I also worked on image display functionality, as well as video. Images had to be delayed due to firebase' new payment requirements we had trouble meeting, but once those were settled images were put back into the database, and functionality was confirmed to be working. The only thing not working in the image department was displaying them in reviews, which is close to working and will definitely be done soon. As for video, compression and saving have been implemented, but display has not yet.

Anthony Hordesky: I tackled the notifications and GPS functionality for this milestone. The old geofence service was not ideal so I decided to explore a new library called geolocator. This is an active flutter plugin that has full geofence functionality, and when run with the workmanager

library, allows for both foreground and background location tracking. I have not yet researched battery usage with background tracking, which is why I have it updating every minute rather than a shorter time like 5 seconds. I also finished rerouting with the heads-up notifications, so the user is redirected to the dashboard whenever they click on the alert that they have entered PDH. I still need to implement time tracking and the review/suggestion reminder, but I plan to get that done early into milestone 5.

Jiahao Shu:I implemented a dropdown filter on the search page that allows users to filter review results by star rating. I updated the rendering logic of the search results section so that it can optionally display the rating filter. I also optimized the '_filteredReviews logic' in the search bar so that reviews can be filtered based on a combination of tags, star ratings, and keywords, and modified the 'SearchResultsSection' to render the rating filter and pass the selected state back to the parent component. In addition, I implemented the functionality of expanding individual review details. Moving forward, I need to further explore how to improve the UI for displaying review details beyond just text and star ratings.

Lexi Franklin: I worked in designing a staff end view of the application to implement. This includes basic app functionalities as well as buttons and where they should redirect to or what function they should complete. Staff end has different functionalities in their dashboard, search engine, reviews, etc. This means moving forward I need to fully implement this end for the staff and make sure that everything runs cohesively and as expected. The staff end and user end will have different functionalities that will need to be tested separately to ensure proper usability.

Next Milestone (M5)

Task	Alex	Anthony	Jiahao	Lexi
Staff View	0%	0%	0%	100%
Demo App	25%	25%	25%	25%
GPS Full Functionality	0%	100%	0%	0%
Design Leaderboard and Social Screens	100%	0%	0%	0%
Guest Dashboard	0%	0%	100%	0%
Personalized Meal Recommendatio n Algorithm	25%	25%	25%	25%

Discussion of Planned Tasks
- Improve review submission including videos, returning to dashboard, and removing duplicates

- Improving search to have different interfaces for words, ratings, tags, etc.
- First notification while entering PDH, and redirect to dashboard Second notification halfway through PDH visit, redirect to submit review
- User profile to include favorite dishes, and PDH duration (updated each time the guest visits PDH)
- Personal recommendation based on algorithm of "Tasteful Twin"
- Implement two contests and leaderboards
- Implement, test, and demo guest dashboard with 6 main components (reference 3.2.1.2 in requirements doc)
- Guests can suggest new dishes with links to recipes, vote on them, and see a ranking of new dishes based on votes ("leaderboard").
- Guests can see a ranked list of dishes today based on ratings (this is linked from a component of the dashboard).

Dates Met With Client: 9/15, 9/26

Client Feedback
See Faculty Advisor Feedback below.

Dates Met
We met with our Client/Faculty Advisor on 9/15 and 9/26

Faculty Advisor Feedback
September 15th, 2025
1. Writing Reviews
    a. After submitting review, redirect to homepage/dashboard rather than staying on same screen so user can see if review/suggestion was successfully submitted ✅
    b. Still cannot do videos
    c. Remove duplicates in menu items (scraper)✅
    d. Allow for reviews with no tags✅
2. Searching for reviews
    a. Clicking on review will show the content with pictures✅
    b. Still need to add search by tags and search by keywords✅
3. Notifications
    a. Redirections from second notification to review/suggestion creation
    b. Redirection from first notification to home screen with recommendations
    c. Time tracking and updating average duration calculation
    d. Need progress on second notification sending for half duration
4. User Profile
    a. Add favorite dishes
    b. Update PDH duration
5. Recommendation
    a. Personalized recommendation based on tasteful twin algorithm
6. Staff Screen
    a. Profile: description of the user

    b. Dashboard
        i. Flag reviews, address flags easily
        ii. Suggestions
        iii. Resolved flags (button to look at them)
        iv. Suggestions that have been considered (button as well)

September 26th, 2025
1. Writing Reviews
    a. Remove default selection from star ranking, force star selection
    b. Return to dashboard after review instead of homescreen
    c. Allow video to be added
    d. Handle video playback and storage via youtube, or directly
2. Searching for reviews
    a. Show entire review (pictures, tags, star rating, video link)
    b. Option to differentiate what is being searched (tags, rating, meal, text)
3. No progress on 3, 4, 5, 6 on Sep. 15th