***Need to pick top-down or bottom-up approach***

***We will use top down***

***These are the three categories, approx 13 tasks per category and 4 tasks per cat will be in WBS dict***

***Plz let everyone know when u finish ur tasks in the gc***

***Kian: Back-End Software, Database***

***John: Front-end software, Approval and Deployment***

***Nick: Testing and Marking/User Engagement***

***Please write ur tasks below in their category:***

***Front End(GUI) software tasks***

***Naviagation and Layout (20 Days)***

***1.Design login and registration screen UI (3 days)***

***2.Build homepage with main navigation bar (3 days)***

***3.Create dining hall selection screen (3 days)***

***4.Develop daily menu interface with filters (3 days)***

***5.Integrate dietary and allergen filter options (2 days)***

***6.Implement clickable food item pop-ups with nutritional info (3 days)***

***7.Add tabbed views for meals by time (breakfast/lunch/dinner) (3 days)***

***Ordering & Customization (18 days)***

***8.Design customizable meal builder UI (4 days)***

***9.Build order summary and edit cart screen (3 days)***

***10.Create checkout and payment selection screen (4 days)***

***11.Display confirmation of meal plan usage or credit card charge (2 days)***

***12.Add real-time order tracking interface (3 days)***

***13.Design confirmation screen with estimated pickup/delivery time (2 days)***

***Approval And Deployment tasks (Was thinking about making staff training subset) -KF***

***Approval Process (10 days)***

***1.Draft and finalize university dining proposal (2 days)***

***2.Submit proposal to Binghamton IT and Dining Services (2 days)***

***3.Meet with university legal team regarding FERPA compliance (3 days)***

***4.Obtain final university administrative approval (3 days)***

***User Acceptance Review & Pre-Launch Sign-Off (15 days)***

***5.Stakeholder Review Sessions (2 days)***

***6.User Acceptance Feedback Collection (1 day)***

***7.Final Sign-Off and Approval (3 days)***

***8.Pre-Launch Readiness Check (2 days)***

***9.Deployment Coordination and Planning (4 days)***

***10.Post-Launch Monitoring & Contingency Planning (3 days)***

***Deployment (17 days)***

***11.Prepare app for App Store and Google Play submission (3 days)***

***12.Coordinate soft launch with targeted student group (3 days)***

***13.Launch public version and monitor post-launch feedback (11 days)***

***Back-end software tasks***

***Setup (13 days)***

***1. Select integrated development envi for our software (2 days)***

***2. Start blank project (1 day)***

***3. Set up source code repository (1 day)***

***4. Setup and install logger software (2 days)***

***5. Log user events ( 5 days)***

***6.Select GPS software (2 days)***

***Logins (17 days)***

***7. Obtain BU payment system authorization (6 days)***

***8. Integrate BU payment system (11 days)***

***Data Retrieval (60 days)***

***10. Write order sending/receiving feature (40 days)***

***11. Write Weekly Menu Update Feature to update database (20 days)***

***Tracking/GPS Feature (48 days)***

***12.Integrate GPS Location Software (18 days)***

***13.Write order progress feature (30 days)***

***Database tasks (Need to add duration for tasks!!!!) -KF 4/3/25 4pm***

***Design Database (8 days)***

***1. Design Database Tables needed (3 days)***

***2. Design Database Management Plan (5 days)***

***3. Retrieve Binghamton dining halls menu’s and list of students (1 day)***

***4. Design mapping of menu items to database numbers (5 days)***

***5. Implement the mapping scheme in our database (4 days)***

***Menu Item Database (6 days)***

***6. Create a menu database table (1 day)***

***7 Populate with menu info (5 days)***

***User Database (3 days)***

***8. Create User Info Database (1 day)***

***9. Populate the database with user info (2 days)***

***Nutritional Information Database (10 days)***

***10. Create calories information database table (1 day)***

***11. Populate table with calorie information table for each item (4 days)***

***12. Create macronutrient information database table (1 day)***

***13. Populate table with macronutrient info table for each item (4 days)***

***Testing tasks***

***Test Creation (6 Days)***

1. ***Write Tests for Front-End Components (3 days)***
2. ***Write Tests for Back-End Functions (3 days)***

***Run Tests (18 Days)***

1. ***Test User Login and Registration (2 days)***
2. ***Test Dining Hall and Menu Selection UI (2 days)***
3. ***Conduct Integration Testing Between Frontend and Backend (4 days)***
4. ***Test Dietary Filter (2 days)***
5. ***Perform Stress Testing on Order System (3 days)***
6. ***Conduct Security Testing on User and Payment Data (3 days)***
7. ***Beta User Usability Testing (2 days)***

***Issue Remediation (11 Days)***

1. ***Bug Reproduction and Documentation (2 days)***
2. ***Track App Crashes or Errors During Beta (3 days)***
3. ***QA Test Real-Time Order Tracking Feature (3 days)***
4. ***Regression Testing After Fixes and Updates (3 days)***

***Marketing and User Engagement tasks***

***Marketing Planning (8 Days)***

1. ***Develop Campus Marketing Strategy Plan (3 days)***
2. ***Create Promotional Materials (flyers, posts, etc.) (3 days)***
3. ***Design App Store Descriptions and Screenshots (2 days)***

***Marketing Execution (5 Days)***

1. ***Organize Tabling Events for Awareness (3 days)***
2. ***Send Email Announcements to Students (2 days)***

***Campaign Deployment (7 Days)***

1. ***Create an In-App Tutorial or Onboarding Flow (3 days)***
2. ***Offer Early Adopter Incentives (e.g. free coffee) (2 days)***
3. ***Host Q&A or Live Demo on Instagram or Discord (2 days)***

***User Engagement Analysis (7 Days)***

1. ***Gather User Feedback with Surveys/In-App Forms (2 days)***
2. ***Create a FAQ and Support Resource Page (2 days)***
3. ***Monitor Engagement Metrics (3 days)***

***Post Launch Retention (4 Days)***

1. ***Coordinate With Dining Services to Push In-App Deals (2 days)***
2. ***Launch Weekly Email With New Menu (2 days)***

***—----------------------------------------------------------------------------------------------------------------------------***

***WBS Dict:***

***Front End(GUI) software***

***1.Design Login and Registration Screen UI***

***Description: Create the visual and functional layout for the app’s login and signup screens, ensuring clarity, ease of use, and integration with student credentials.***

***2.Create Dining Hall Selection Screen***

***Description: Build a user-friendly interface that allows users to select a dining hall by location or preference, potentially including map or icon-based navigation.***

***3.Design Customizable Meal Builder UI***

***Description: Implement an interactive screen that enables users to customize meals (e.g., bowls, sandwiches) by selecting ingredients, portions, and preferences.***

***4.Add Real-Time Order Tracking Interface***

***Description: Design and implement a progress-tracking UI that shows order status updates (e.g., preparing, ready, delivered) with timestamps or live tracking.***

***Approval And Deployment tasks***

***1.Draft and Finalize University Dining Proposal, Description: Create a comprehensive proposal document detailing the app's purpose, scope, stakeholders, technical integration, and expected benefits for student life and campus operations.***

***2.Submit Proposal to Binghamton IT and Dining Services, Description: Present the finalized proposal to the university’s IT department and Dining Services for review, feedback, and approval to move forward with implementation.***

***3.Recruit Students and Staff for Beta Testing Description: Identify and invite a group of students and dining staff to participate in closed beta testing to gather early feedback on app functionality, usability, and bugs.***

***4.Launch Public Version and Monitor Post-Launch Feedback Description: Deploy the full version of the app campus-wide and actively collect feedback and monitor performance metrics to support continuous improvement.***

***Back-end software***

***1. Select Integrated Development Environment (IDE)***

***Description:* Choose the most appropriate IDE for developing and maintaining the project, considering team familiarity, features, and integration capabilities.**

***2.Set Up Source Code Repository***

***Description:* Establish version control using Git and set up a central repository (IE Github) with branch protections and contribution guidelines.**

***3.Integrate BU Payment System***

***Description:* Implement the approved BU payment system API for authentication and transaction handling within the platform.**

***4.Write Order* Sending/Receiving Feature**

**Description: Develop the back-end logic to handle the creation, transmission, and acknowledgment of user food orders.**

***Database Tasks***

***1.Design Database Tables Needed***

***Description:* Define the schema for all necessary database tables to support users, menu items, orders, and nutritional data.**

***2.Design Database Management Plan***

***Description:* Outline a plan for database structure, indexing, backup strategy, and access roles to ensure scalability and maintainability.**

***3.Populate Menu Info***

***Description:* Enter all available dining menu items into the menu table, including item names, categories, and availability.**

***4.Populate Macronutrient Info Table***

***Description:* Populate the macronutrient table with information (e.g., protein, carbs, fats) for each menu item, linking them via item IDs.**

***Testing Tasks***

1. ***Write Tests for Front-End Components***

***Description:* Develop and implement unit tests for key front-end components including the Login/Registration UI, Customizable Meal Builder, and Real-Time Order Tracking interface**

***2.Perform Stress Testing on Order System***

***Description*: Simulate high user load scenarios to evaluate the performance and stability of the order placement and processing system under stress. Test how the backend handles simultaneous order submissions, large data loads, and peak usage times.**

***3.Conduct Security Testing on User and Payment Data***

**Description: Assess the app’s security protocols to ensure the protection of sensitive user information and payment data. Test for vulnerabilities such as insecure data storage, broken authentication, or exposure of personal and financial information during transmission.**

***4.QA Test Real-Time Order Tracking Feature***

***Description:* Thoroughly test the real-time order tracking interface to ensure accurate and timely updates on order status (e.g., received, preparing, ready for pickup).**

***Marketing and User Engagement***

***1.Design App Store Descriptions and Screenshots***

***Description: Create compelling and informative app descriptions and visual assets for submission to the Apple App Store and Google Play Store***

***2.Send Email Announcements to Students***

***Description: Draft and distribute email announcements to inform the student body about the app launch, key features, and how to get started. Collaborate with the university’s IT or communications department to access official mailing lists and ensure compliance with campus email policies.***

***3. Create an In-App Tutorial or Onboarding Flow***

***Description: Design and implement an intuitive onboarding experience that guides new users through the app’s core features, such as selecting dining halls, customizing meals, and tracking orders.***

***4.Gather User Feedback with Surveys/In-App Forms***

***Description: Develop and deploy surveys or in-app feedback forms to collect user insights on app usability, features, and overall satisfaction.***