Bronco Eats - Santa Clara University

OMIS 106 Final Report

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Concept Introduction

Bronco Eats is a food service application specifically designed for Santa Clara University Students. The purpose of this application is to enhance SCU's dining services. We strive for this application to serve as a smarter way to order on campus. Offering a seamless platform for ordering food, maintaining nutritional and dietary information, and accurately tracking delivery times. One of our main purposes is to foster a more interactive dining experience. Students can view and submit reviews for menu items that they have purchased. Such reviews include detailed feedback and user uploaded photos which is used to be a reference for other students. The app also includes a rewards system. In addition, the Bronco Eats app also specializes in group orders. Groups of students can create an order together and be able to pay separately for their items. We strive to ensure that students can properly enjoy the food and are informed of its ingredients from their mobile device.

Students can browse through an expanded menu with detailed nutritional information, including calories, ingredients, and dietary restrictions. Once a user presses on any item, they can see an in-depth view and thus, help those make informed choices on what they are eating. As a result, by incorporating a healthy options section, it will be easier to find nutritious meals and built in dietary and allergy filters that will enable students to customize their food options based on these filters.

In regards to food delivery apps, the delivery aspect can be challenging sometimes. For example, some delivery wait times are inaccurate and cause a lot of users to continue to wait for their food. As a result, Bronco Eats strives to diminish this problem. Students have the option to choose dorm delivery or make a scheduled pick up. Similarly to other food delivery services, users will then be able to pay and then confirm their order information. The application also contains GPS tracking that provides real time updates on order statuses, including transparency from preparation to delivery. Not only does Bronco Eats work with the main dining hall, the app also focuses on the small cafes located around the campus. Students will also be able to compare the estimated wait times at the various coffee shops.

As for job opportunities, Bronco Eats offers external job applications for the on campus food service positions. SCU students will get priority for applying to this job. The application will verify their credentials through a student's ACCESS CARD. Since this is an app solely for SCU students, it is important that students who know both the campus and the dining services the best, serve as a delivery worker as well.

Requirements

Current Situation Description

Santa Clara University's existing food ordering application has been met with a range of user frustrations that hinder its effectiveness as a modern campus dining solution. Currently, the primary function of the application is facilitating order pickup from various dining locations at SCU, whether that be one of the many Benson restaurants or one of the multiple small cafes placed around the SCU campus. While this functionality addresses basic transactional needs, it forgoes any form of delivery options that could offer greater student convenience. Moreover, the application interface offers limited nutritional information, leaving health-conscious students disadvantaged when determining ingredient lists, calorie break-downs, allergens, and more. In addition, the existing app suffers from unpredictable order wait times and what some users deem a clunky in-app experience.

Given these shortcomings, the next food ordering platform SCU provides to its students must go beyond pickup to include diverse delivery options ranging from the standard pickup to dorm delivery and even classroom drop off. Furthermore, the platform must provide more accurate wait times, detailed nutritional breakdowns, additional payment options, and an overall more improved in-app experience for the thousands of students utilizing the app daily.

User Requirements

Bronco Eats aims to address the needs of as many Santa Clara University students as possible by providing a user-friendly platform that overcomes the limitations of the current ordering system. A crucial feature is an expanded menu that includes meal options from both the main dining halls and smaller cafés around campus. Students require quick and intuitive navigation through the menu, with enhanced dietary filters such as vegetarian, vegan, gluten-free, and allergen-specific categories. By providing detailed nutritional facts and ingredient lists, Bronco Eats ensures students can make informed choices that align with their health goals or dietary restrictions.

Another standout user requirement is the student review feature, which allows students to provide direct feedback on menu items, offering insights into portion sizes, taste, ingredient accuracy, and overall satisfaction. Unlike the current system, which lacks any form of peer-driven evaluation, this review system empowers students to make informed meal choices based on the experiences of their classmates. Users can rate meals, leave comments, and upload photos, ensuring a transparent and intuitive representation of food quality. This feature builds trust within the student body and creates a valuable feedback loop that benefits both students and dining services. Additionally, dining hall managers can analyze trends in student reviews, identifying consistently well-received menu items while addressing frequently critiqued meals. By enhancing food transparency and encouraging interaction, the student review system strengthens Bronco Eats as an app and improves the overall SCU dining experience.

Beyond menu selection and reviews, another essential feature is the ability to compare wait times across SCU dining locations. The current system does not allow students to efficiently determine which dining hall or café has the shortest wait time, often leading to overcrowding in certain locations while others remain underutilized. Bronco Eats addresses this issue by displaying real-time estimated wait times for each dining facility, helping students make informed decisions about where to order from. By integrating data from kitchen workflows, live order volume, and POS systems, the app ensures students can quickly identify the most efficient dining option, reducing congestion and improving overall service speed across campus.

Another key user requirement is the real-time order tracking feature. The unpredictability of wait times in the current system is a major issue, which Bronco Eats resolves through GPS tracking and instant notifications at every stage of the process. The app must accurately display the status of each order, from placement to preparation, waiting, pickup, transit, and delivery. The integrated GPS allows students to track their food in real-time as it moves across campus to their dorm or any specified location. This feature provides convenience for students who are in a hurry or unable to travel across campus for their meals, reducing uncertainty and improving the overall dining experience.

Group ordering is another important feature that Bronco Eats must offer. On Santa Clara University's campus, it is common for friends, clubs, or even classmates working on group projects to coordinate meal orders together. The app will include a shared cart system, allowing multiple students to add items and split the final bill accordingly using student flex dollars or meal plan points. This feature reduces confusion, missed orders, and duplicated efforts while making it easier for groups to place collective orders in a seamless manner.

Lastly, in addition to enhancing the dining experience, Bronco Eats offers students job opportunities through an integrated application system for becoming a Bronco Eats Student Deliverer. SCU students seeking flexible, on-campus employment receive priority when applying directly through the app. The system verifies student credentials through SCU ID authentication and provides email updates on application status and next steps. This feature not only supports student employment but also strengthens the campus community by keeping the delivery service student-led, ensuring that student drivers are familiar with SCU's layout and dining locations. This familiarity improves delivery efficiency, making the service more reliable and tailored to the needs of the SCU community.

By addressing these user requirements—expanded menu access, peer-driven reviews, wait-time comparisons, real-time tracking, group orders, and student employment—Bronco Eats ensures a seamless, transparent, and efficient dining experience that meets the evolving needs of Santa Clara University students.

System Requirements

A core requirement of the system is user authentication and access control, ensuring that only enrolled SCU students, faculty, and authorized personnel can use the platform. The system will integrate with the SCU ID database and will utilize student access cards. For job

applications, users will have to apply via Workday or SCU login credentials will be required to ensure that only students can access exclusive job opportunities. This authentication system will also support meal plan payments which gives students direct access to their dining balances.

To enhance food delivery services, the platform will incorporate real-time GPS tracking, allowing students to receive live updates on their orders. Delivery personnel will have access to a driver interface, enabling them to update order statuses, mark deliveries as "out for delivery," and confirm successful drop-offs. This system will also optimize delivery routes, reducing wait times and improving overall efficiency. Additionally, the platform will provide students with wait-time tracking for on-campus dining locations, enabling them to compare estimated pickup times before placing orders.

The platform will feature an extensive nutritional database which will ensure that students will have access to detailed food information, including calories, ingredients, allergens, and dietary restrictions. A Healthy Options section will allow students to filter menu items based on their preferences, such as vegetarian, vegan, gluten-free, halal, or kosher meals. Clicking on any food item will display expanded nutritional details, along with student-submitted reviews and photo evidence to help users make informed choices. The review system will ensure authenticity by requiring at least one prior purchase of an item before a review can be posted.

All user transactions and personal data will be secured, ensuring compliance with university privacy policies. The platform will be accessible via both a mobile app and a website. This will ensure that students can order food from any device. The mobile app will be available for iOS and Android. The web portal will offer the same features, making it convenient for students to place orders from laptops or tablets.

Business Requirements

Bronco Eats serves more than just for convenience. It also provides significant value to SCU and its students. By enhancing efficiency, engagement, and revenue streams, SCU's dining experience will be drastically improved and foster a better campus. The app improves the overall quality of student life by making food more accessible, reducing long lines, and allowing for convenient dorm delivery. Features like tracking, wait-time comparisons, and scheduled orders will ensure that students can manage their meals efficiently. By doing this, students will face much less stress when it comes to meals and will have more time to focus on other priorities. By hiring students for the app, SCU can provide more on-campus work opportunities and reduce the university's reliance on external labor. This aligns with SCU's mission to maintain student development both academically and professionally. Bronco Eats helps SCU track food demand, meal preferences, and peak ordering times. This allows for better inventory management and waste reduction. By analyzing order patterns and wait times, SCU can reduce food waste, and enhance overall sustainability efforts on campus. By providing a service tailored to student needs, SCU enhances its reputation as a forward-thinking campus.

The app eliminates the hassle of long food lines by offering dorm delivery, wait-time comparisons, and scheduled pickups, ensuring students can get their meals quickly and efficiently. With expanded nutritional information, dietary filters, and a Healthy Options section, students can make more informed meal choices, catering to various dietary restrictions and personal health goals. Students will also benefit from a loyalty rewards system. For example, users can receive a free coffee after a certain amount of purchases. Students can now participate in group orders. These split payments options allow students to share costs efficiently which makes it easier to order in groups without financial hassle. By allowing students to submit reviews and photos of their meals, the app fosters an interactive dining community where students can share experiences and make informed choices. The ability to track deliveries in real time with GPS updates further enhances trust and satisfaction.

With seamless meal plan integration, flexible payment options, and optimized ordering, the app encourages more frequent orders, boosting revenue for the food provider. The app collects valuable consumer data, such as peak ordering times, most popular items, and purchasing behavior. This allows for more strategic pricing, targeted promotions, and efficient menu adjustments to meet student demand. Features like scheduled pre-orders, wait-time tracking, and dorm delivery reduce strain on in-person service, allowing for better staff management and resource allocation. Instead of handling large rushes unpredictably, the food provider can streamline operations based on real-time data. By offering a more personalized, student-friendly experience, the food provider fosters brand loyalty within the SCU community. A rewards system, meal plan integration, and student-exclusive hiring further strengthen this relationship, ensuring long-term engagement and repeat business.

The SCU Food Delivery app creates a win-win-win scenario: students enjoy greater convenience, cost savings, and meal transparency; SCU strengthens its student services, employment opportunities, and sustainability efforts; and the food provider benefits from increased sales, better operational management, and a loyal customer base. By integrating modern technology with the specific needs of SCU students, this platform has the potential to redefine campus dining, making it smarter, faster, and more student-focused than ever before.

Stakeholder & Role Interviews

To gather key requirements for the Bronco Eats app, a comprehensive interview process will be conducted, targeting three primary stakeholder groups: student users, campus dining staff, and university administrators. These interviews will help identify critical user needs, operational challenges, and policy considerations, ensuring that the app is both functional and aligned with Santa Clara University's infrastructure. By engaging these stakeholders, the development team can refine Bronco Eats to create an efficient, user-friendly, and scalable dining solution.

The first stakeholder group consists of student users, who represent the primary audience for the application. Within this group, perspectives may differ based on residence status, dining habits, and dietary restrictions. Resident students, who frequently order meals on campus, may prioritize convenience and delivery options, while commuter students might value efficient

pickup services. Additionally, students with dietary restrictions such as vegetarian, vegan, or gluten-free preferences require detailed nutritional information and allergen filtering to ensure safe dining choices. The primary objectives of these interviews include identifying ordering habits, frustrations with the current system, and desired improvements. Specific questions will address wait times, menu accessibility, food quality, and the usefulness of review features. For example, students may be asked, “What frustrates you most about campus dining?” or “Would you use a student review system to rate food quality?” Expected responses will likely highlight long wait times, lack of delivery options, limited menu transparency, and the inability to compare dining hall wait times efficiently. These insights will help refine Bronco Eats into a solution that directly caters to student preferences.

The second key stakeholder group is campus dining staff, including kitchen personnel, frontline workers, and dining managers. These individuals play a crucial role in food preparation, order fulfillment, and inventory management. The objective of interviewing dining staff is to document current workflows, identify pain points during peak hours, and determine the best methods for integrating the app into kitchen operations. A key question for this group could be, “Describe your current order fulfillment process and the challenges you experience during peak hours.” Responses will likely reveal bottlenecks in food preparation, inventory shortages, and inefficiencies in tracking order status. Additionally, kitchen staff may express concerns about balancing in-person and app orders while maintaining service speed. Understanding these challenges will guide Bronco Eats in implementing real-time tracking, accurate wait-time estimates, and streamlined kitchen workflows to improve efficiency. By integrating dining staff feedback, the app can help reduce mismanaged orders, optimize food preparation times, and create a more reliable ordering experience for students.

The final group of stakeholders consists of university administrators, including representatives from IT services, dining services management, and the student employment office. Their input is crucial for ensuring that Bronco Eats aligns with SCU’s policies on student employment, payment integration, and data security. Interviews with administrators will focus on compliance requirements, system compatibility, and student hiring protocols. One key question could be, “What are SCU’s policies regarding payment processing for meal plans and student employment in food services?” Expected responses will highlight the need for secure transactions, FERPA compliance for student data, and background checks for student employees. Additionally, administrators may raise concerns about liability in food delivery, third-party system integration, and access control for meal plan funds. By addressing these policy considerations early, Bronco Eats can be developed in a way that meets university regulations while enhancing efficiency and accessibility for students.

Following relevant information from Chapter 2 of our textbook, the interview process will be structured to ensure thorough data collection. This includes preparation of interview questions, a dedicated notetaker during each session, and proper follow-up documentation to ensure key insights are accurately captured and analyzed. Well-prepared questions will ensure consistency across interviews and detailed notes will allow the team to reference responses

efficiently when grouping interviewee findings. Additionally, follow-up documentation will facilitate post-interview analysis, ensuring that no critical information is overlooked.

Once interviews are completed, findings will be consolidated into formal requirement documentation and workflow diagrams to clarify key insights. The development team will analyze recurring issues, prioritize essential features, and identify potential conflicts between student expectations, staff workload, and administrative regulations. Addressing these challenges early will help improve the system's design, ensuring that Bronco Eats remains both technically feasible and aligned with SCU's operational standards.

By following a structured interview process, the development team can create a comprehensive foundation of functional and non-functional requirements, ensuring that Bronco Eats successfully enhances Santa Clara University's dining experience. This approach will not only improve food ordering efficiency but also ensure smoother operations for dining staff and compliance with university policies, making Bronco Eats a valuable addition to SCU's campus life.

Project Planning & Monitoring

As soon as the project is approved, the team will follow an iterative planning and monitoring approach that will ensure Bronco Eats is developed efficiently and meets the needs of Santa Clara University. First, the project environment will be established by setting up communication channels and technical resources. A shared repository can store requirements, tasks, and documents for key features like SCU ID authentication, nutritional data use, real-time GPS tracking, group ordering, and student job applications. Each member on the team will be assigned the necessary development tools like IDEs and testing frameworks. Furthermore, access to the SCU dining services database will be secured to enable easy data synchronization.

During each sprint, the team will begin with a sprint planning session with highest priority tasks like refining the user interface for the Nutritional Information Page or optimizing order tracking. Estimates for work will be made as a group and will ensure realistic deadlines and workload balance. The team will also engage in a daily stand-up meeting via video call to talk about progress, obstacles, or any tasks that should be reassigned. These meetings will help the team stay on the same page and avoid miscommunication.

The dedicated project manager can monitor and track our overall progress while ensuring stakeholder goals are addressed. If an issue appears like wait-time inaccuracy or payment errors, our manager can work with developers for correction while adjusting timelines or priorities if needed. External communication is also important for our team. Short project status reports can be sent to SCU admins highlighting accomplishments made by our teams and upcoming Bronco Eats milestones.

At the end of each iteration, the team can hold a sprint review to show off completed features and gather feedback. Additionally, a retrospective can be implemented to reflect on what went well and can be improved. This cycle can keep Bronco Eats on track to deliver an excellent student-centric food ordering system.

Competition

In the highly competitive food delivery market, apps like Uber Eats, DoorDash, and Grubhub take a large portion of the market share by providing users with fast, convenient meal options. However, these platforms are designed for external restaurants and lack integration with Santa Clara University dining service. SCU dining integration is crucial for students at SCU as most students rely on dining credits exclusively for meals. Because of this, there is an existent gap for campus-specific solutions. Bronco Eats differentiates itself from other food delivery apps by focusing specifically on Santa Clara University's on-campus dining facilities, providing a tailored solution that mainstream apps like Doordash do not address.

Traditional food delivery apps aim to provide quick reliable access to restaurant meals with minimal effort. They solve problems related to convenience, meal variety, and accessibility. However, their service fees are often high, and delivery times can vary greatly. Additionally, these popular applications do not partner with SCU dining credits, providing Bronco Eats an opportunity to offer students the ability to order meals easily using their flex, dining plan, or any other preferred payment options.

Successful food delivery apps emphasize user-friendly interfaces, order tracking, secure payment processing, and restaurant partnerships. Bronco Eats offers similar strengths while including exclusive campus features like access to nearly all on-campus buildings including dorms for delivery, student-verified food reviews, and group ordering capabilities. Additionally, Bronco Eat's application portal for student delivery roles provides a more flexible and accommodating work opportunity, keeping the service campus-oriented while offering students reputable work through Santa Clara University.

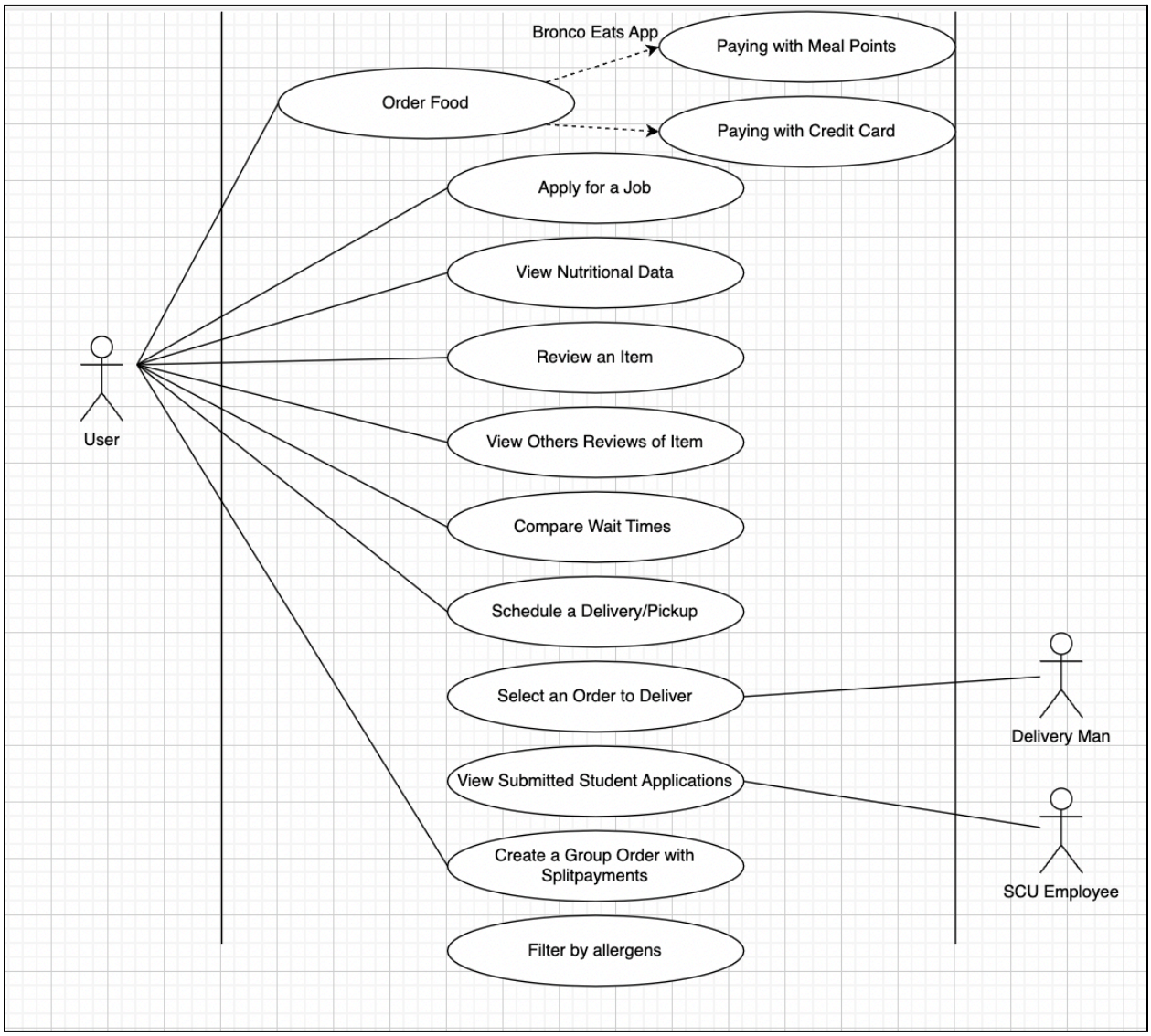
Common complaints from delivery apps like DoorDash and UberEats include long wait times, inaccurate ETAs, high fees, customer service issues, and much more. Bronco Eats addresses these by offering fairly priced services fees, optimized real-time GPS tracking curtailed specifically for the SCU campus, and assurance that food arrives fresher by keeping deliveries within campus boundaries.

Bronco Eats does not simply replicate existing apps, it leverages their best features while focusing on SCU student needs specifically. Through the integration of meal plans, student employment, and enhanced delivery transparency, the app creates a unique solution for all users. By making affordability, convenience, and user engagement a priority, Bronco Eats is prepared to outperform mainstream alternatives for university dining while offering students an effective and valuable service.

UML Diagrams

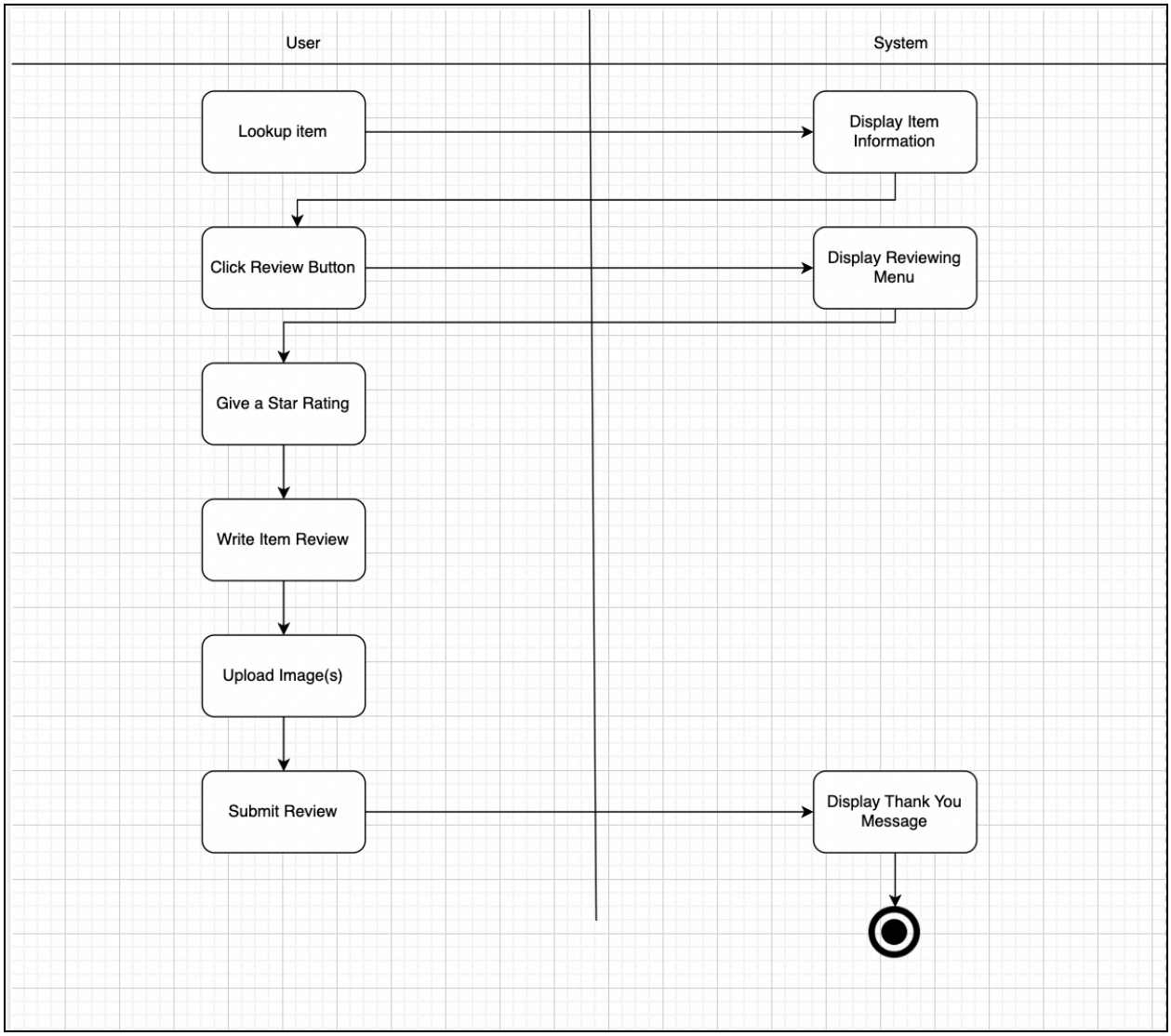
Use Case Diagram

This use case diagram centers on all the different uses of the application. The application is primarily used by students ordering or looking at food so many of the use cases are designed with that in mind. In order for food delivery to happen, there needs to be delivery drivers and SCU employees hiring these delivery drivers so those use cases can also be seen. We also have one “includes” use case just to show the implementation of SCU dining points into the system.

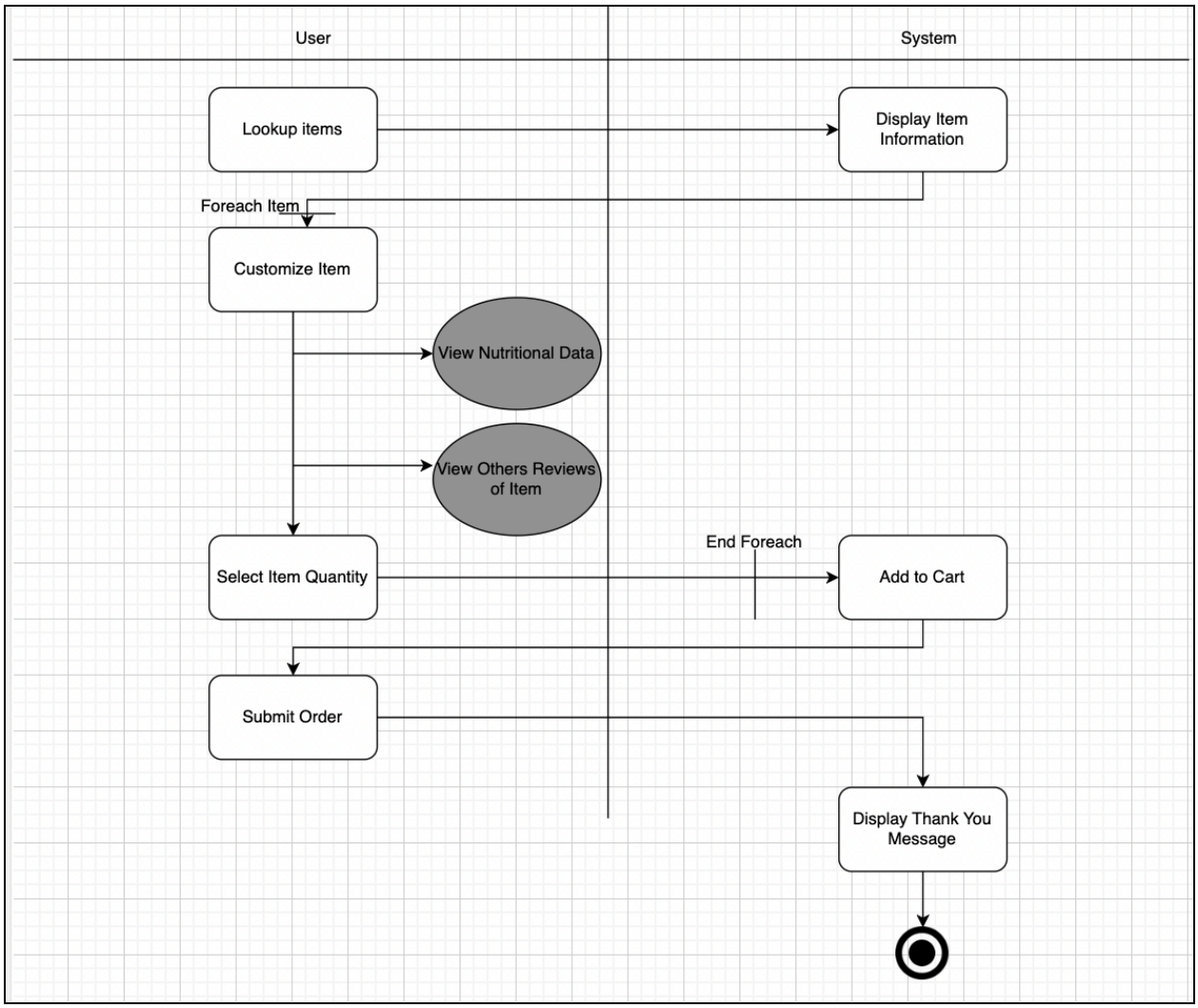


Activity Diagrams

The first activity diagram covers reviewing an item. It focuses primarily on the user and all the different user inputs that go into making a review. The initial search feature and beginning of the review are system interactions as they pull up new menus. While giving a star rating, adding images, and writing a text based review are the user making multiple inputs into the review page.

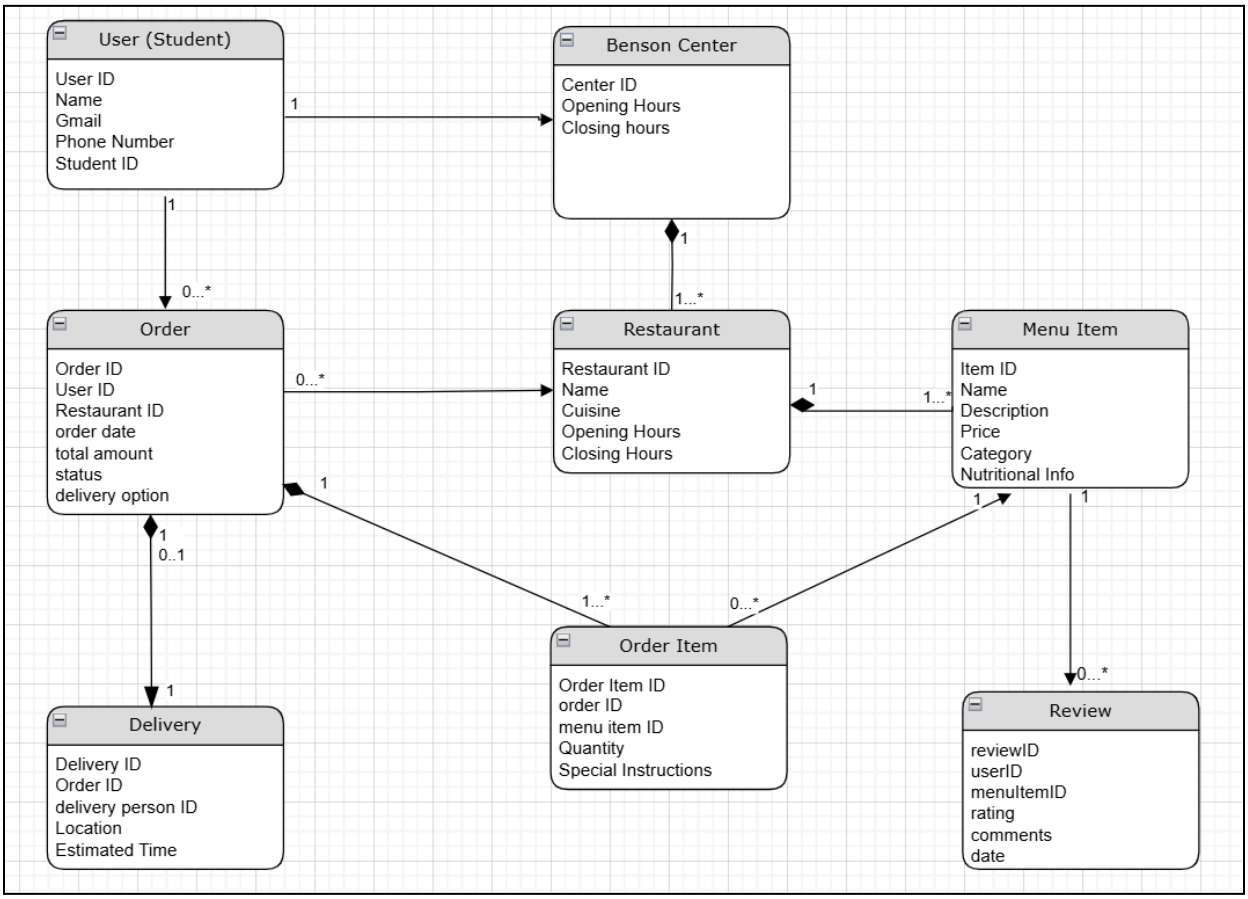


The second activity diagram covers the actual ordering system with a simple one person ordering for themself. With this ordering system it was important to highlight the two optional use cases that can be a part of an order. This is viewing nutritional data and reviews. While not every order will require viewing these things it's important to leave them as options someone can easily access while ordering their food. There is also a foreach included to allow for multiple items to be added to the cart before purchasing as sometimes people will want multiple food items or a food item and a drink. Handling this all as one transaction is simpler.


User
System
Lookup items
Display Item Information
Foreach Item
Customize Item
View Nutritional Data
View Others Reviews of Item
Select Item Quantity
End Foreach
Add to Cart
Submit Order
Display Thank You Message

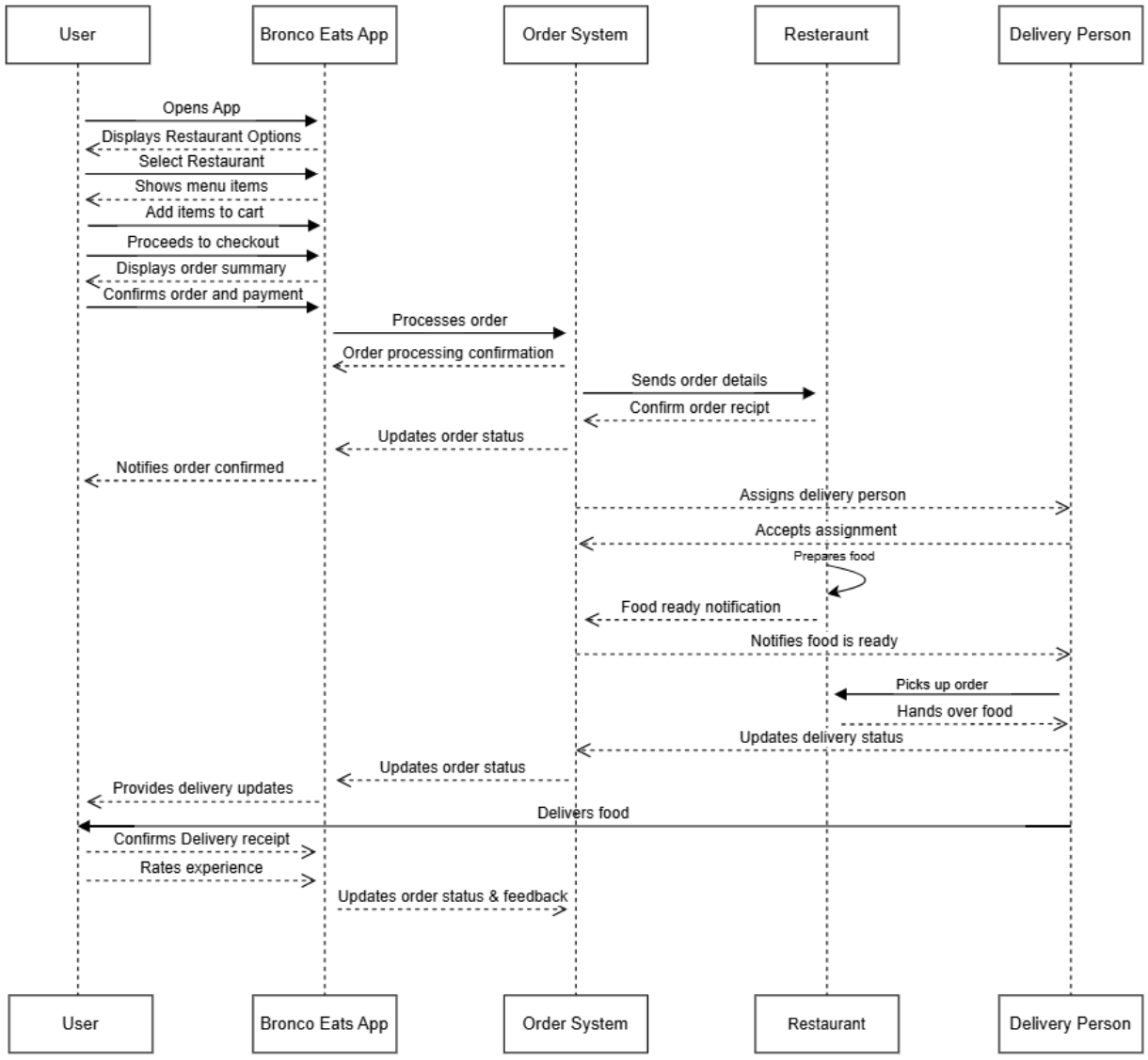
Domain Class Diagram

The Domain Class Diagram for Bronco Eats depicts the relationships between the system's core entities. Users (Students) can place multiple Orders, with each Order linked to exactly one Student. Orders are associated with one Restaurant, while Restaurants can fulfill many Orders and are affiliated with Benson Center. Each Restaurant offers multiple Menu Items, which are connected to Orders through the Order Item junction class that tracks quantity and special instructions. Orders can have one optional Delivery that contains delivery details and tracking information. Menu Items can receive multiple Reviews from Users, capturing ratings and feedback.



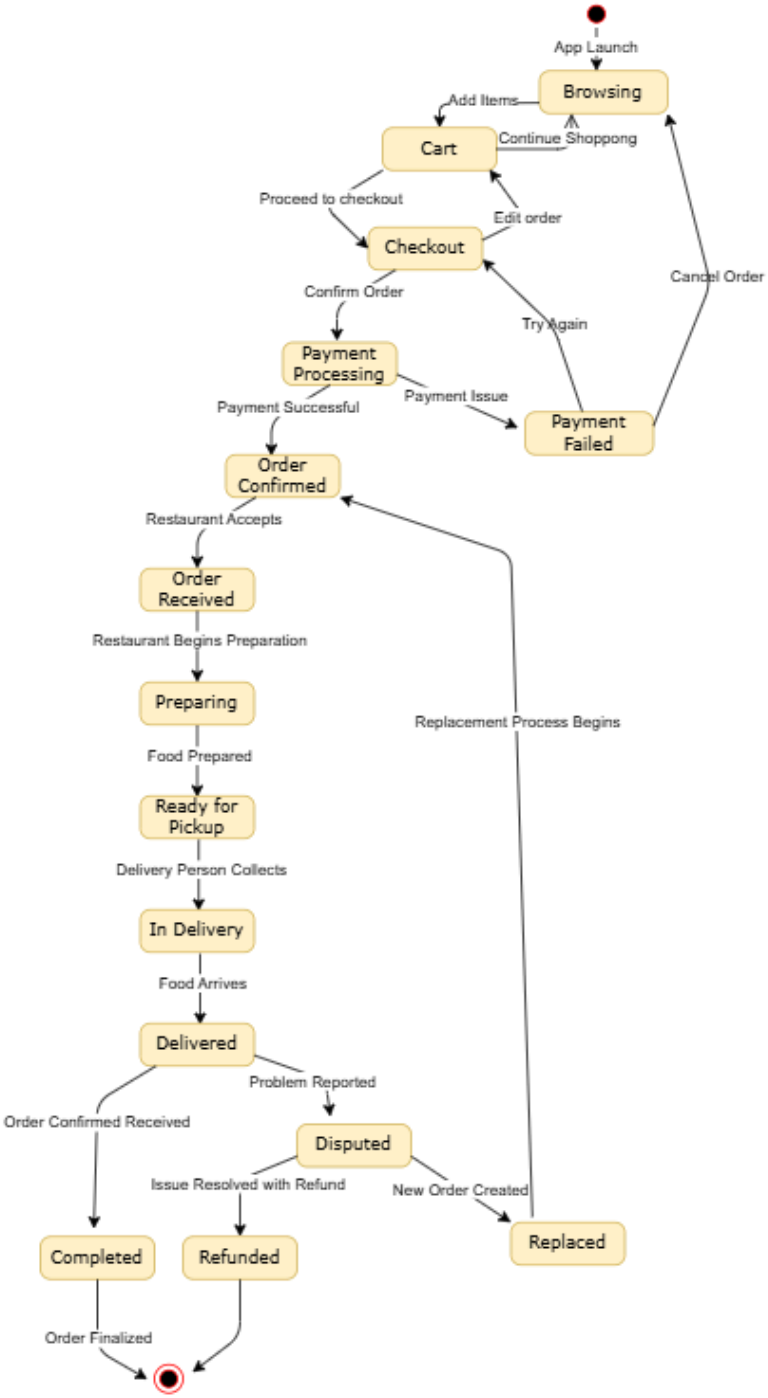
Sequence Diagram

The sequence diagram illustrates the chronological flow of communication between key actors in the Bronco Eats food delivery system. It begins with a student opening the app, which responds by displaying restaurant options. After choosing a restaurant, the student peruses the menu before putting goods in their cart and checking out. The student confirms their order and payment after reading the order summary, which causes the system to process the information synchronously. The order system then asynchronously notifies both the app and the selected restaurant, with the restaurant confirming receipt. While the restaurant prepares the food, the system designates a delivery person who accepts the duty. The restaurant notifies the system when the order is ready, and the delivery person is notified to pick it up. Asynchronous status updates between participants keep everyone informed during the delivery process. The sequence concludes with the student receiving their food, confirming delivery, and providing feedback that updates the system records.



State Diagram

The state diagram represents the various states an order can transition through in the Bronco Eats system. The process begins at the Browsing state when a user launches the app, from which they can add items to enter the Cart state. Users can freely move between Browsing and Cart until they proceed to Checkout. At Checkout, users can either confirm their order, moving to PaymentProcessing, or return to Cart to make changes. The PaymentProcessing state branches into either OrderConfirmed if payment is successful or PaymentFailed if issues occur. Failed payments can be retried or canceled, while confirmed orders progress to OrderReceived once accepted by the restaurant. The order then moves sequentially through Preparing and ReadyForPickup states before transitioning to InDelivery when collected by the delivery person. Upon arrival, the order enters the Delivered state, which can lead to either Completed if the customer confirms receipt or Disputed if problems are reported. Disputed orders are resolved through either Refunded or Replaced states, with replacements re-entering the OrderConfirmed state to restart the fulfillment process. Both Completed and Refunded states ultimately lead to the final state, representing the conclusion of the order lifecycle.



User Interface

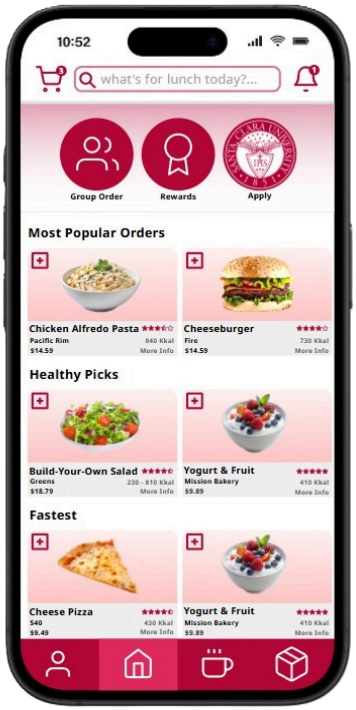
User Interface Design and Experience

The Bronco Eats app is designed to be clear, functional, and easy to navigate, using a light red and white color scheme that reflects Santa Clara University's branding. The layout is structured to ensure students can quickly find meals, place orders, and track deliveries. With a bottom navigation bar providing quick access to essential features. Icons and section headers are clearly labeled, making the app easy to use without any unnecessary complexity.

For developers, these screens serve as a structured guide to ensure consistently inspacing, button placement, and typography. The nutritional information and tracking screens are arranged to present improtion detail while avoiding clutter in order to keep everything accessible.

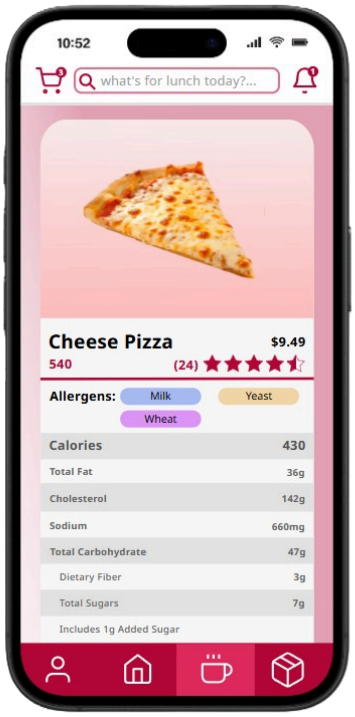
The final version of the app should provide a smooth experience, with responsive transitions when switching between pages. Order tracking should update in real-time, and menu selections should feel quick and intuitive. The goal is to make ordering food at SCU efficient and straightforward for every student while reducing wait times and ensuring users have a reliable way to access SCU dining services.

Landing Page



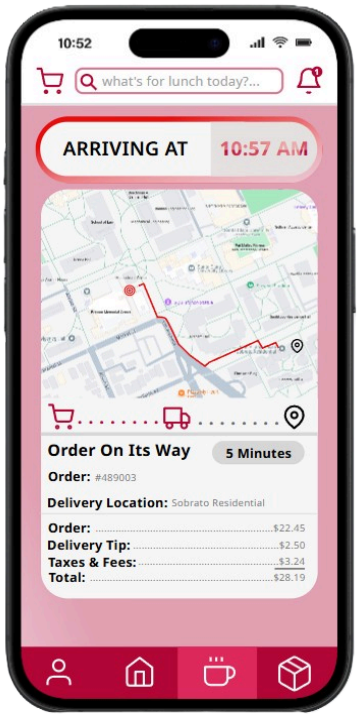
The Bronco Eats landing pages is the central hub for users, providing navigation to key features within the app. At the top, a navigation bar sits in the center for convenient usage if the student knows specifically what they are looking for. On the right side of search is the notification button that updates users on any existing orders or other pertinent information. On the left is a shopping cart for active orders that allows the student to identify the number of items in the cart at a glance. A persistent hotbar at the bottom enables access to key pages such as user settings, dining locations, past orders, and homescreen button that takes them back to the currently displayed landing page.The main portion of the interface categorizes food into sections like “Healthy Picks,” “Popular Orders,” “Fastest,” and more to allow for easier decision-making on the student’s end. Additionally, prominently displayed are links sitting at the very top of the main portion that direct the user to pages like group ordering, rewards, and the student job application portal, ensuring all major functionalities remain within reach for the user.

Nutritional Information Page



The nutritional information screen enhances transparency by allowing users to access detailed insights before placing an order. After selecting a menu item, a popup overlay presents a breakdown of calories, fat, sugar, carbs, protein, and other essential dietary details. This ensures that students with specific dietary needs or fitness goals can make well-informed meal choices. Furthermore, the interface prominently attaches Allergen tags to the menu item and includes a quick access link to student reviews, allowing the user to gauge quality, portion size, and taste of an item based on peer feedback. This integrated approach ensures that dietary preferences and food quality are considered together, making a more personalized experience.

Tracking Page



The Bronco Eats tracking feature makes sure students stay updated on their orders from preparation to delivery. The top half of the screen displays a real-time order progress bar, indicating whether the meal is being prepared, awaiting pickup, or in transit. Live GPS tracking allows users to follow their order's journey across campus, eliminating uncertainty and reducing wait-time frustration. Below the tracker, key details such as order number, delivery location, and estimated arrival time are displayed for convenience. Also included is a breakdown of cost, including order price, taxes, delivery tips, and the final total to allow for easy viewing of purchase details. The streamlined layout enhances usability while offering a familiar and efficient experience similar to mainstream food delivery services, tailored specifically to SCU's campus dining ecosystem.

Costs and Benefits

Development Costs

The initial development of the Bronco Eats, including UI/UX design and backend coding, is estimated at $100,000 as a one-time cost. This figure aligns with the industry average for on-demand food delivery apps, which typically range between $80,000 and $150,000. Additionally, a partnership fee with Santa Clara University (SCU) is projected at $20,000, a necessary investment to integrate with campus dining services. Marketing and launch efforts will require another $30,000 to establish brand awareness and ensure successful adoption among students. Altogether, the total development costs amount to $150,000.

Operational Costs

Once launched, Bronco Eats will incur ongoing operational expenses. Maintenance, updates, and bug fixes will initially cost $15,000 per year, increasing by $5,000 annually over the next five years, updated at the end of the 5 years. Compensation for delivery staff is expected to start at $80,000 per year, rising by $10,000 annually to accommodate increased demand and ensure quality service. Customer support costs are projected at $20,000 per year, increasing by $5,000 each year, while marketing and advertising expenses will start at $20,000 annually with a $10,000 yearly increase to sustain user growth. The integration and maintenance of restaurant partnerships will remain steady at $10,000 per year.

Expenses						
Category	**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
1. App Development	$150,000	$0	$0	$0	$0	$0
2. Ongoing Maintenance	$0	$15,000	$20,000	$25,000	$30,000	$35,000
3. Delivery Staff Compensation	$0	$80,000	$90,000	$100,000	$110,000	$120,000
4. Customer Support	$0	$20,000	$25,000	$30,000	$35,000	$40,000
5. Marketing & Advertising	$0	$20,000	$30,000	$40,000	$50,000	$60,000
6. Restaurant Partnership Costs	$0	$10,000	$10,000	$10,000	$10,000	$10,000
Total Expenses	$150,000	$145,000	$175,000	$205,000	$235,000	$265,000

Student Population and Users

Santa Clara University has a total undergraduate population of 6,115 students, including approximately 1,400 freshmen and an estimated 1,250 sophomores, resulting in a total underclassmen population of 2,650 students. The adoption rate among underclassmen is expected to be 60%, leading to an estimated 1,600 active users from this group. The remaining upperclassmen population, excluding transfer students, is approximately 2,665, with a projected

adoption rate of 20%, resulting in 500 active users. In total, Bronco Eats anticipates 2,100 active student users.

Meal Assumptions

Each user is expected to order an average of two meals per week, translating to 104 meal orders per year per student. Based on SCU meal pricing, the average cost per meal is estimated at $12.

Revenue Assumptions

Revenue will be generated through subscription fees, service fees on orders, restaurant commission, and advertising. Approximately 60% of users, or 1,260 students, are expected to subscribe to the service at a rate of $5 per month, generating $75,600 in annual subscription revenue. The remaining 40% of users, approximately 840 students, will pay a service fee of $2 per order, leading to an annual service fee revenue of $174,720. Additionally, restaurants will pay a 10% commission on each order, amounting to $1.20 per meal, which results in a total restaurant commission revenue of $131,040 per year. Advertising revenue is projected to start at $20,000 per year, increasing by $5,000 annually. Subscription and service fee revenues are expected to grow by 15% year-over-year, while restaurant commission revenue is projected to increase by 5% annually.

Revenue						
Category	**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
1. Subscription Revenue		$75,600	$86,940	$99,981	$114,978	$132,225
2. Service Fee Revenue		$174,720	$200,928	$231,067	$265,727	$305,586
3. Restaurant Commission Revenue		$131,040	$137,592	$144,472	$151,695	$159,280
4. Advertising Revenue		$20,000	$25,000	$30,000	$35,000	$40,000
Total Revenue		$401,360	$450,460	$505,520	$567,401	$637,091

Cost-Benefit Analysis

A thorough financial analysis indicates that Bronco Eats is a viable and profitable project. Given the startup nature of the business, a higher discount rate is applied to account for risk factors. The payback period for the initial investment is approximately 244.5 days, demonstrating a quick return on investment.

Coat-Benefit Analysis						
Category	**Year 0**	**1**	**2**	**3**	**4**	**5**
1. Value of Benefits (Revenue)	-	$401,361	$450,462	$505,523	$567,405	$637,096
2. Development Costs	($150,000)	-	-	-	-	-
3. Annual Expenses	-	($145,000)	($175,000)	($205,000)	($235,000)	($265,000)
4. Net Benefit/Costs	($150,000)	$256,361	$275,462	$300,523	$332,405	$372,096
5. Discount Factor (15%)	1	0.8696	0.7561	0.6575	0.5718	0.4972
6. Net Present Value (NPV)	($150,000)	$222,923	$208,289	$197,599	$190,053	$184,998
7. Cumulative NPV	($150,000)	$72,923	$281,211	$478,810	$668,863	$853,861
8. Payback Period	0.67	or 244.5 Days After Initial Launch Year 0				

Risks and Challenges

Despite promising financial projections, Bronco Eats faces several challenges. One of the primary risks is adoption rate, as students may need convincing to transition from third-party food delivery services such as Uber Eats and Grubhub. Operational efficiency is another key consideration, requiring effective logistics management to ensure fast delivery times and meet demand fluctuations. Regulatory compliance is also essential, particularly in adhering to university policies, food safety standards, and delivery regulations. Additionally, the app's technology must perform seamlessly, with reliable payment systems, tracking, and real-time updates to provide a positive user experience.

Cost-Benefit Analysis Conclusion

Bronco Eats presents a strong business case with a significant potential for profitability and growth. The projected financials indicate sustainable revenue generation, benefiting students with a more convenient and cost-effective meal delivery service while also supporting SCU Dining Services and local restaurant partners. Given its short payback period and high adoption potential, the app is well-positioned to succeed within the Santa Clara University community.