Sprint 3 Materials

907-30

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Retrospective Summary

When reflecting on the third and final sprint of our project, we found that we were satisfied with how our final product turned out, but we still found ways that we could improve in future work. We began by reflecting on the features we are happiest with from the sprint. We all agreed that our automatic sales and promotion functionality, our revamped customer ordering, and our A.I. customer assistant were our most impressive features from this sprint. Because we still have some time to make final tweaks before our final demonstration, we reflected on what we could improve technically. Overall, we collected a small list of mini tweaks that can be completed, but mainly, we would like to work on some more tests and do a bit of refactoring to clean up the codebase. In addition to these tweaks, we identified some changes we did not implement from our user and expert studies that we could implement during this phase. For the most part, these improvements are simple UI changes to add a little bit of quality polish to the user experience. We analyzed the blockers we had during the sprint, where we found that testing was by far our biggest challenge because coverage was very difficult to implement with the tech stack we were using. To remedy this problem in future projects, we decided that it would be best to research the testing capabilities of tech stacks before choosing them and starting testing much earlier in development. Overall, we are satisfied with the product that resulted from this sprint and feel ready for our final demonstration.

GitHub Release Link

https://github.com/csce-315-331-2024a/project-3-full-stack-agile-web-project-3-907-30/releases/tag/3.0.3

Product Backlog

Legend: E(n) = Estimated time (n) in hours, corresponds to n points; P(n) = Priority level n, determines dependency level; S(x) = Status x, 0 is incomplete, 1 is complete

Dependencies: All items marked with priority 1 (P1) create the foundation for our project.

All items marked with priority 2 (P2) are tasks that create a more robust product, and are foundation adjacent, but do not act as building blocks for later tasks. They are most likely built on P1 tasks.

All items marked with priority 3 (P3) do not build any foundational elements of our app. They are all dependent on previous tasks. These tasks are to add finishing touches to the product.

P1
Stories 1, 6, & some tasks in 13 and 14: Login functionality

Story 5: Manager trend functionality (data retrieval and analysis)

Stories 7, 8, 9, 10, 11, & 12: Employee POS functionality

Story 18: Customer POS ordering functionality

Stories 19, 20, & 21: Accessibility features

P2 - Needs all users to be logged in, Needs basic POS framework, Needs data retrieval/trends
Stories 2 & 3: Manager advanced trends and restaurant actions (Needs login, Needs data retrieval/trends)

Story 10: Extra item information for employee at POS (Needs basic POS framework)

Stories 15, 16, & some tasks in 14: Customer account information and interaction (Needs login, data retrieval/trends, basic POS framework)

P3 - Needs login, POS framework, and data retrieval/trends
Stories 17, & dome tasks in 13 and 14: Customer and employee statistics and account information (Needs login, data retrieval/trends, basic POS framework)

Chores are broken down very similarly; but because they were all added after basic functionality was finished, they are not dependent on unfinished features

Manager stories:

☐ 1. As a manager I want to be able to securely login to my Manager view so that I can make managerial adjustments without allowing any other people to view the sensitive information that I have access to.

  ☐ 1. Make Manager GUI login view that prompts a username and password and uses google oauth to make a secure login E3 P1 S1

  ☐ 1. Modify schema to hold google Oauth necessary information E2 P1 S1

  ☐ 1. Implement login and logout routes and corresponding hooks E1 P1 S1

☐ 2. As a manager, I want to be able to view past orders and see what is selling the least, so we can advertise it more.

  ☐ 2. Make function that queries the menu items that have sold the least and the amounts that they have sold in ascending order (least sales first); have 10 item cutoff (bottom 10 sellers) E1 P2 S1

  ☐ 2. Add functionality to the function that queries the menu items that contribute the smallest percentage to the total revenue as well, for a more accurate view of the weak links E1 P2 S1

  ☐ 2. Make GUI panel/page that shows these items in order with their categories E2 P2 S1

  ☐ 2. Have GUI make the items that pop up interactable; eg if you click corn dogs because they're selling poorly, it should take you to the menu items view where you can edit the corndog item or add a promotion to it E3 P2 S1

☐ 3. As a manager, I want to make any item on sale to increase orders.

  ☐ 3. Make GUI edit menu item view have an option to put the item on sale E1 P2 S1

  ☐ 3. Have a function that updates menu item's prices when they go on sale E1 P2 S1

  ☐ 3. Make GUI menu item sale view have a date range option using a calendar date selection to determine how long the sale will last E1 P2 S1

  ☐ 3. Make menu item return to default price when sale window passes E2 P2 S0

☐ 4. As a manager, I want to be able to see what employees have made the most orders so I can see which employee is most valuable. 2

  ☐ 4. Make Manager GUI page that shows employee performance E2 P1 S1

  ☐ 4. Make function that queries the employees with the most total orders made E1 P1 S1

☐ 5. As a manager I want to be able to see trends in sales data so I can estimate inventory purchasing and present to business owners.

  ☐ 5. Make Manager GUI page that has a menu of available trend reports E3 P1 S1

  ☐ Make functions for the following trend reports:

    ☐ 5. What sells together E2 P1 S1

    ☐ 5. Product Usage Chart E2 P1 S1

    ☐ 5. Sales Report E2 P1 S1

☐ 5. Excess Report E2 P1 S1

☐ 5. Restock Report E2 P1 S1

☐ 5. Days with the most sales in a given month E2 P1 S1

☐ 6. As a manager, I want to be able to give new employees the ability to make orders but not access the manager view

☐ 6. Managers can view all employee accounts that have logged into the POS system E2 P1 S1

☐ 6. Managers can make accounts "employees" through a button click in the manager view E1 P1 S1

☐ 6. Restrict access of manager page from employees E1 P1 S1

Employee stories:

☐ 7. As an employee, I want to be able to make orders so I can translate a customer's desires to the kitchen.

☐ 7. Make Employee GUI POS system that allows employees to create, delete, customize, and see the information contained within an order E1 P1 S1

☐ 7. Make functions that can create, delete, view, and modify the orders in the database E1 P1 S1

☐ 7. Make function that queries all of a menu item's relevant information E2 P1 S1

☐ 7. Have GUI call and display the results of that function when a customer is selecting a given item E1 P1 S1

☐ 8. As an employee, I want to be able to clear an order so that I can respond to a customer changing their mind.

☐ 8. Make POS system have a clear order button that removes all of the items in the order list E1 P1 S1

☐ 9. As an employee, I want to receive instant notifications on insufficient stock levels before placing orders.

☐ 9. Make a function that quickly queries the stock information of the inventory items that make up a menu item and alerts if there is low / no stock E1 P1 S1

☐ 9. Have GUI call this function when an employee selects a menu item for an order E1 P1 S1

☐ 10. As an employee, I want to be able to view product information so I can inform the customer without leaving.

☐ 10. Make a function that queries all of the relevant characteristics of a menu item like allergen information. E1 P2 S1

☐ 10. Have GUI show this information to the employee when they click on a menu item at POS. E1 P2 S1

☐ 11. As an employee, I want to be able to quickly add extra quantities for one item so I can respond to customer wants.

  ☐ 11. Have GUI at POS give the option of selecting the number of items that will be added to an order when creating it E1 P1 S1

☐ 12. As an employee, I want to be able to see the order total so I can read it out and double check with the customer.

  ☐ 12. Have GUI at POS show the subtotal, tax, and final total for an order when as the order is being built E1 P1 S1

☐ 13. As an employee, I want to be able to see what items I have sold the least to tailor my sales strategy around it.

  ☐ 13. Make Employee GUI view that shows employee information E1 P3 S1

  ☐ 13. Make function that queries the information stored for a given, logged-in employee E1 P3 S1

  ☐ 13. Make Employee GUI login view using google OAuth E2 P1 S1

  ☐ 13. Implement login and logout routes and corresponding hooks E3 P1 S1

  ☐ 13. Store session information in cookies when logged in E1 P1 S1

  ☐ 13. Save current user's information during their session to be used in their tasks (making an order should assign the currently logged in employee to the order) E1 P1 S1

Customer stories:

☐ 14. As a customer, I want to be able to log in to see my past orders and points so that I can re-order or just see what I like.

  ☐ 14. Make Customer GUI "login" view that asks for relevant information (email) E2 P1 S1

  ☐ 14. Implement Google OAuth API functionality for customers to login E3 P1 S1

  ☐ 14. Implement login and logout routes and corresponding hooks E1 P1 S1

  ☐ 14. Make Customer GUI information view that shows all of the relevant information (general and rewards) on a customer's account E2 P3 S1

  ☐ 14. Create new tables and/or columns in the database holding the extra rewards information E2 P3 S1

  ☐ 14. Make function that queries a customer's general information E1 P2 S1

  ☐ 14. Make function that queries a customer's purchase history   E1 P2 S1

  ☐ 14. Make a function that queries a customer's rewards information E1 P3 S1

- [ ] 15. As a customer, I want to see items that are on promotion so that I could make an informed purchasing decision.
    - [ ] 15. Make the Customer POS view highlight the items that are on sale in some way E1 P2 S1
    - [ ] 15. Make function that queries all of the items that are on sale E1 P2 S1
- [ ] 16. As a customer I want to see allergy and dietary information so I can make an informed decision about what to eat.
    - [ ] 16. Have GUI show allergy alerts when the customer selects an item E2 P2 S1
    - [ ] 16. Make function that retrieves the allergy information for a menu item E1 P2 S1
- [ ] 17. As a customer, I want to gain points for previous transactions, so I can use that information to get discounted items.
    - [ ] 17. Have GUI give feedback to logged-in customers showing how many points they have earned for an order E1 P3 S1
    - [ ] 17. Have Customer GUI view that shows the rewards they can get with their point balance E2 P3 S1
    - [ ] 17. Create new tables and columns in the database to hold the information on rewards and deals E1 P3 S1
    - [ ] 17. Make function to query what rewards are available with the point total of the given customer E1 P3 S1
- [ ] 18. As a customer, I want to be able to see menu items and their respective prices clearly, so I can use that information to make my order.
    - [ ] 18. Make sure GUI has obvious design that clearly shows what an item looks like, and shows the item's information obviously when selected E2 P1 S1

Accessibility stories:

- [ ] 19. As a user who is blind, I want to be able to use the website with the help of a screen reader, so that I know what is being displayed. 2
    - [ ] 19. Add screen reader functionality to all GUI items in sprint 1 E1 P1 S1
    - [ ] 19. Add screen reader functionality to all GUI items in sprint 2 E1 P1 S1
    - [ ] 19. Add screen reader functionality to all GUI items in sprint 3 E1 P1 S0
- [ ] 20. As a user who has poor vision, I want to be able to see and use the website without any additional help, so I can order correctly. 2
    - [ ] 20. Make sure that all views have high color contrast and easily legible font in sprint 1 E1 P1 S1
    - [ ] 20. Make sure that all views have high color contrast and easily legible font in sprint 2 E1 P1 S1

☐ 20. Make sure that all views have high color contrast and easily legible font in sprint 3 E1 P1 S0

☐ 21. As a non-english speaking user, I want to be able to read the site in my native language so that I can order what I want without a substantial barrier. 2

 ☐ 21. Add google translate functionality to all GUI items in sprint 1 E2 P1 S0
 ☐ 21. Add google translate functionality to all GUI items in sprint 2 E2 P1 S1
 ☐ 21. Add google translate functionality to all GUI items in sprint 3 E1 P1 S0

Sprint Backlog

Legend: #. = Corresponding story, En = N hours estimated to complete, Sy = y status (0 not complete, 1 complete), Tn = N hours spent on the task
Ex:

☐ Story
 ☐ task
  ☐ sub-task

☐ As a manager, I want to make any item on sale to increase orders. - Gabe
 ☐ Make GUI edit menu item view have an option to put the item on sale E1 P2 T2 - Gabe
 ☐ Have a function that updates menu item's prices when they go on sale E1 P2 T2 - Gabe
 ☐ Make GUI menu item sale view have a date range option using a calendar date selection to determine how long the sale will last E1 P2 T2 - Gabe
 ☐ Make menu item return to default price when sale window passes E2 P2 T2 - Gabe

☐ As an employee, I want to be able to see what items I have sold the least to tailor my sales strategy around it. - Margo
 ☐ Make Employee GUI view that shows employee information E1 P3 S1 - Margo
 ☐ Make function that queries the information stored for a given, logged-in employee E1 P3 S1 - Margo

☐ As a customer, I want to see items that are on promotion so that I could make an informed purchasing decision. - Chris
 ☐ Make the Customer POS view highlight the items that are on sale in some way E1 P2 T1 - Chris
 ☐ Make function that queries all of the items that are on sale E1 P2 T2 - Chris

Chores (part of the backlog, but have no story points associated with them)

☐ Allow managers to input date ranges for trends - Margo E2 P1 S2
☐ Try to make interactable way to update menu items - Aaron E2 P2 T4

- [ ] Add front-end for customers to see their past orders - Margo E1 P1 T1
- [ ] Move all trend functionality to api's - Margo E1 P3 T1
- [ ] Clean up Allergen UI for customer view with Halal and Vegan - Chris E1 P2 T1
- [ ] Clean up logic for excess report form - Aaron E1 P2 T1
- [ ] Add bounds checking to manager trend inputs - Chris E1 P2 T1
- [ ] Clean up menu management card - Aaron E1 P2 T1
- [ ] Fix duplicate customers being added - Gabe E1 P1 T1
- [ ] Fix menu item makeup - Gabe E2 P2 T0
- [ ] Remove Google Translate loading circle - Adam E1 P3 T1
- [ ] Allows employees to remove items from order in receipt - Akshay E1 P1 T1
- [ ] Allow customers to make orders in the customer view page - Akshay E2 P1 T3
- [ ] Customers can create orders - Akshay E2 P1 T1
- [ ] Customers can remove items from orders - Akshay E1 P1 T1
- [ ] Allow modifications in all ordering views - Akshay E3 P1 T2
- [ ] Recommend items based on weather - Margo E2 P2 T1
- [ ] View all orders; view a single order (including status: pending, fulfilled, canceled, etc.) - Adam E2 P1 T3
- [ ] Modify an order (add/remove items, change status, etc.) - Adam E3 P1 T3
- [ ] Remove an order from the order history - Akshay E1 P1 T1
- [ ] Add a new item to the inventory - Adam E2 P1 T1
- [ ] View all inventory items; view a single inventory item - Adam E1 P1 T1
- [ ] Modify an item in the inventory (name, quantity, supplier, etc.) - Adam E1 P1 T2
- [ ] Remove an item from the inventory - Adam E1 P1 T1
- [ ] Menu management - Aaron E3 P1 T4
- [ ] Add a menu item - Aaron E1 P1 T5
- [ ] View current menu items - Aaron E1 P1 T1
- [ ] Modify a menu item (name, price, ingredients, description, status, etc.) - Aaron E2 P1 T4
- [ ] Remove an item from the menu - Aaron E1 P1 T1
- [ ] Add/update/remove seasonal menu items, "seasonal" := defined availability window, visible on all applicable views - Chris E3 P2 T3
- [ ] Mobile friendly for customer view - Adam E3 P1 T2
- [ ] Fix WAVE accessibility issues - Gabe E3 P1 T2
- [ ] Fix accessibility checker issues - Gabe E3 P1 T2
- [ ] Add more tests with playwright - Margo E3 P1 T2
- [ ] Measure code coverage with playwright - Margo E1 P1 T3
- [ ] Remove user in user management - Adam E1 P1 T1

☐ Add pictures to static menu board - Adam E2 P2 T2
☐ Link to external site - Akshay E1 P3 T1
☐ One more API functionality - Akshay E3 P3 T2
☐ Host documentation - Chris E3 P1 T2
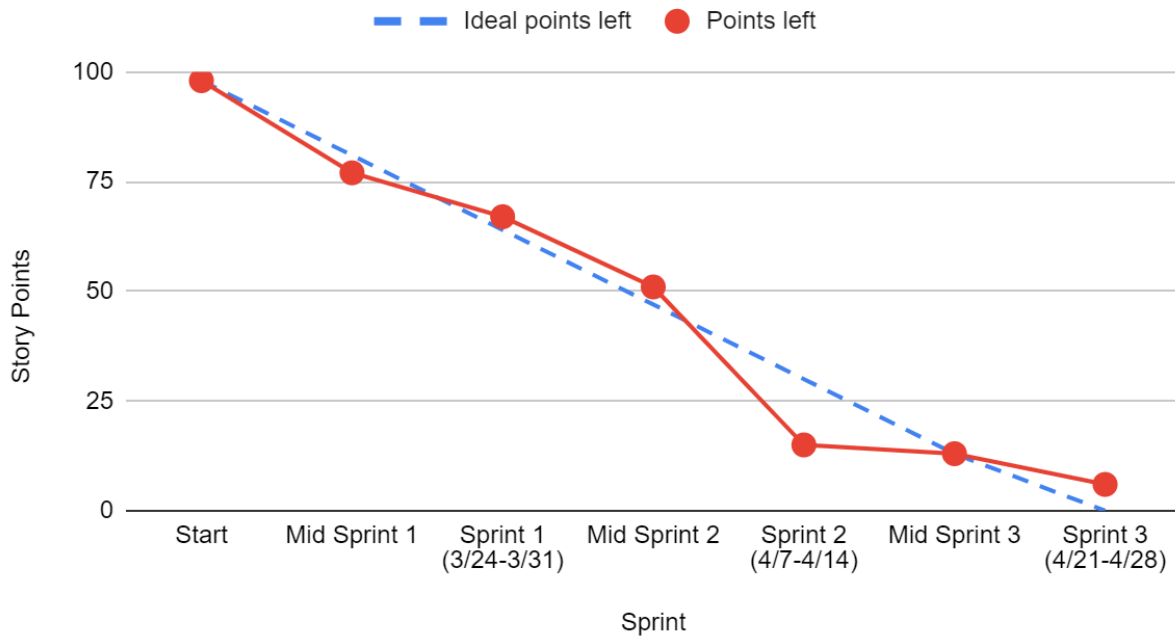☐ Add deprecated column when removing menu items to prevent side effects - Gabe E2 P2 T1

Member	Sprint 1 Points	Sprint 2 Points	Sprint 2 Chores	Sprint 3 Points	Sprint 3 Chores	
Aaron Mathews	4	9		all chores	8	
Adam Teo	7	6	2	all chores	9	
Akshay Belhe	8	7		all chores	8	
Chris Avila	4	5		2	3	
Gabriel Floreslovo	3	16	2	5	5	SCRUM MASTER
Margo Gongora	5	6	1	2	6	

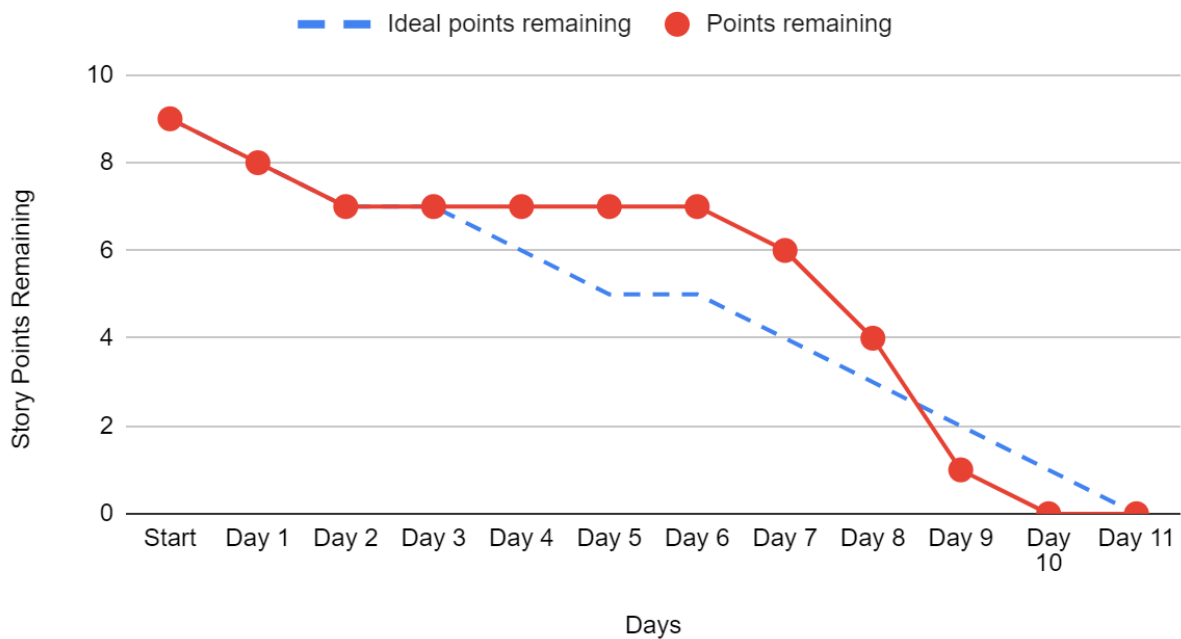# Burn-down Charts

Product Burndown:

PRODUCT BURNDOWN CHART

Sprint 3 Burndown:

SPRINT 3 BURNDOWN CHART

Next Sprint's SCRUM Meeting Schedule

This sprint was the final sprint.

Appendix 1: SCRUM Meeting Agendas and Minutes

Sprint 3 Stand-up 1 for CSCE 331 Project 3

Prepared by: Gabriel Floreslovo

Meeting Date: 4/22/2024

Meeting Attendees

- Adam Teo
- Akshay Belhe
- Aaron Mathews
- Chris Avila
- Margo Gongora
- Gabriel Floreslovo

Agenda

- ☐ What we have finished, what we have left, and how we will do it
- ☐ Conduct "fist of five" vote on the confidence in achieving the sprint goal
- ☐ Share any roadblocks that are interrupting progress

What we have completed

- Showing what items are on sale on customer side - Chris
- Made kitchen view and fixed bugs - Margo
- Removing users on user management, mobile friendly customer view, updated menu board, inventory management, removed translate loading icon - Adam
- Customer ordering done - Akshay

Roadblocks

- Figuring our concurrency issues - Margo
- Postgresql client row returning settings - Adam

The plan for the rest of the sprint

- Start working on menu management and sale functionality - Aaron, Gabe
- Testing, employee information - Margo
- Add seasonal item - Chris
- Finished all tasks, helping the team with whatever - Adam, Akshay

Fist of five result

- average of 3.4 -> not high confidence

Summary

Overall, our decision to start the sprint early has paid off. Two of our team members have already finished their tasks, which is a major help considering Gabe has come down with an illness and has not been able to work very much. We started off with a heavy push, and even though the testing task seems daunting, we believe we can finish if we push through.

NO PREVIOUS STAND-UP MEETING

Sprint 3 Stand-up 2 for CSCE 331 Project 3

Prepared by: Gabriel Floreslovo

Meeting Date: 4/23/2024

Meeting Attendees

- Adam Teo
- Akshay Belhe
- Aaron Mathews
- Chris Avila
- Margo Gongora
- Gabriel Floreslovo

Agenda

- ☐ What we have finished, what we have left, and how we will do it
- ☐ Conduct "fist of five" vote on the confidence in achieving the sprint goal
- ☐ Share any roadblocks that are interrupting progress

What we have completed

- Finished date picker - Margo
- Made API for adding a seasonal item - Chris

Roadblocks

- Working on testing - All

The plan for the rest of the sprint

- Continue helping around - Akshay, Adam
- Continue to work on testing - Margo
- Finish seasonal item - Chris
- Finish adding an item, general menu management

- Item sale functionality - Gabe

Fist of five result

average of 3.7 -> o.k. confidence

Summary

Overall, the team is continuing to try to push through the remaining big tasks. We have made some breakthroughs in testing, but have not fully figured it out just yet. Gabe is coming back from sickness and Aaron is going to be working with him to finish the menu management features. The confidence is slightly higher after the breakthroughs, but there is still a lot left to do, and the team wants to put their heads down and grind it out.

Minutes from Previous Meeting

FoF - 3.4
Overall, our decision to start the sprint early has paid off. Two of our team members have already finished their tasks, which is a major help considering Gabe has come down with an illness and has not been able to work very much. We started off with a heavy push, and even though the testing task seems daunting, we believe we can finish if we push through.

Sprint 3 Stand-up 3 for CSCE 331 Project 3

Prepared by: Gabriel Floreslovo

Meeting Date: 4/23/2024

Meeting Attendees

- Adam Teo
- Akshay Belhe
- Aaron Mathews
- Chris Avila
- Margo Gongora
- Gabriel Floreslovo

Agenda

- ☐ What we have finished, what we have left, and how we will do it
- ☐ Conduct "fist of five" vote on the confidence in achieving the sprint goal
- ☐ Share any roadblocks that are interrupting progress

What we have completed

- Made GUI for employee info button - Margo
- Made GUI to add new menu items - Aaron
- Got test coverage working for all but api - Adam
- Finished GUI for adding a seasonal item - Chris

Roadblocks

- Testing coverage for api's - Adam, Margo, Akshay
- Figuring out best way to add menu items - Aaron, Chris
- Start planning additional API - Akshay

The plan for the rest of the sprint

- Finishing menu management - Aaron
- Continue to work on testing - Adam, Akshay, Margo
- Finish employee info - Margo
- Fix bugs in adding a menu item - Chris

Fist of five result

average of 3.5 -> o.k. confidence

Summary

Overall, we are making progress through some troublesome features, but they are getting done. The progress on testing is slow, but it is coming along. We have an issue with getting the coverage report on our api routes, but we will be asking prof. Ritchey tomorrow in class. We believe we will be able to finish all of our core features, but we do not have that much time left.

Minutes from Previous Meeting

FoF - 3.7
Overall, the team is continuing to try to push through the remaining big tasks. We have made some breakthroughs in testing, but have not fully figured it out just yet. Gabe is coming back from sickness and Aaron is going to be working with him to finish the menu management features. The confidence is slightly higher after the breakthroughs, but there is still a lot left to do, and the team wants to put their heads down and grind it out.

Sprint 3 Stand-up 4 for CSCE 331 Project 3

Prepared by: Gabriel Floreslovo

Meeting Date: 4/23/2024

Meeting Attendees

- Adam Teo
- Akshay Belhe
- Aaron Mathews
- Chris Avila
- Margo Gongora
- Gabriel Floreslovo

Agenda

- ☐ What we have finished, what we have left, and how we will do it
- ☐ Conduct "fist of five" vote on the confidence in achieving the sprint goal
- ☐ Share any roadblocks that are interrupting progress

What we have completed

- Finished 4th api functionality - Akshay
- Wrote more test, improving coverage - Adam, Margo
- Add item done - Chris
- Debugging some frontend stuff - Aaron
- Sales automation API - Gabe

Roadblocks

- Getting good coverage on testing - All

The plan for the rest of the sprint

- Testing and cleanup - Margo, Adam, Akshay
- Finish menu management - Aaron
- Finish seasonal menu item - Chris

- Finish sales functionality end-to-end - Gabe

Fist of five result

average of 3.9 -> good confidence

Summary

Overall, we have made a lot of breakthroughs since the last standup, and the light at the end of the tunnel is looking brighter. Testing is still proving to be the most difficult part of the project workload, but the app is very close to being a fully realized version of the initial vision. We are more confident now that we will finish everything. This last push will be strong.

Minutes from Previous Meeting

FoF - 3.5
Overall, we are making progress through some troublesome features, but they are getting done. The progress on testing is slow, but it is coming along. We have an issue with getting the coverage report on our api routes, but we will be asking prof. Ritchey tomorrow in class. We believe we will be able to finish all of our core features, but we do not have that much time left.