

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

## Beverage Booker Iteration Plan 3

### 1. Key milestones

Milestone	Date
Iteration start	10/08/20
Implemented the Staff App Queueing System	20/08/20
Implemented the Menu Options in Customer App	22/08/20
Updated and Fixed Beverage Booker Web Server	23/08/20
Completed End of Iteration UATs	23/08/20
Iteration stop	23/08/20

### 2. High-level objectives

- Complete push notification mechanism and implement in the Staff/Customer app  
**Outcome:** A push notification mechanism is implemented so that when an order is filled by the staff the customer will get a notification through the customer app saying their order is ready
- Devise a method and implement a queueing system for incoming orders in the Cafe Staff app.  
**Outcome:** A functioning queueing system in the staff app will allow multiple order fulfilment when there is more than one barista on duty
- Finalise the cafe menu object/database table structure to allow for drink customisation and implement menu options within the customer app.  
**Outcome:** The cafe menu in the customer app will allow for drink customisation (e.g. options for milk, size etc) and the database structure for menu items will be finalised.
- Plan and then implement inventory system within the server/database for the cafe  
**Outcome:** Inventory table and system within the database/server implemented and working with purchases
- Conduct research into implementing the View Order use-case. Implement and then test the View Order use-case.  
**Outcome:** View Order functionality is implemented and working within the Customer application. Use-case has passed Instrumented Unit and Integration testing.
- Implement regex/input validation to remove bad input for the Book Delivery address input page  
**Outcome:** Regex/input validation is working and removes bad input for street number and street name fields
- Write UATs for end of iteration testing  
**Outcome:** UATs are ready for the end of iteration round of testing
- Conduct end of iteration UAT testing on implemented use-cases  
**Outcome:** UAT testing has been carried out on the implemented use-cases for this iteration.
- Compile photos for each menu item  
**Outcome:** A set of menu item photos that can be added to the database

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

10. Push the latest version of the local server up to the web server. Address Create User and other functional issues.

**Outcome:** Web server has the latest version of our local PHP server and is functioning without issues ready for the end of iteration UAT.

### 3. Work Item assignments

**Key:**

**Complete** - Completed successfully this iteration.

**Incomplete** - Remains incomplete but not due to lack of time devoted by assigned team members and/or is postponed/rescheduled.

**Incomplete** - Remains incomplete and will require explanation and/or escalation.

The following Work Items will be addressed in this iteration:

Work Item ID	Name or key words of description	Outcome	State	Assigned to (name)	Estimated Hours	Hours worked	Estimate of hours remaining
1.0	Complete push notification mechanism and implement in the Staff/Customer app	Remains incomplete, with difficulties getting the backend trigger to work for the notification on order completion. Task has been escalated.	Incomplete	Emily/Benn	10	29	0
<a href="#">1.1</a>	Token passed to database	The token is passed to the user table under token	Complete	Emily	2	3	0
<a href="#">1.2</a>	Create message popup UI	The notifications test from firebase console is displayed correctly	Complete	Emily	2	3	0
1.3	Create staff app send method	The call to the server is complete	Complete	Emily	2	3	0
<a href="#">1.4</a>	Backend trigger	a JSON method in index.js was created but i was unable to call it, and failed with postman request	FAILED	Emily	4	5	0
<a href="#">1.5</a>	Backend trigger	PHP class notifications.php was created to try and implement but it didn't quite work	FAILED	Emily	4	4	0
<a href="#">1.6</a>	Backend trigger	files notify2.php, notify3.php all failed to complete the task	FAILED	Emily	4	3.5	0
<a href="#">1.7</a>	Backend trigger	notify.js was the second attempt at JSON, not working	FAILED	Emily	4	2.5	0
<a href="#">1.8</a>	Backend trigger	Created methods with index.php and DbOperations.php, works	FAILED	Emily	4	5	0

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

		with no errors but notification fails to appear on device					
<a href="#">1.9</a>	Research how push notifications work/are implemented	Watched a series of Youtube videos on how push notifications work, along with reading the documentation.	Complete	Benn	2	2	0
<b>2.0</b>	Devise a method and implement a queueing system for incoming orders in the Cafe Staff app.	Queueing system has been fully implemented and passed the of iteration UAT. A related task for order completion is ongoing. Automated testing will be completed next iteration.	Incomplete	Jake/ Jacob	29	37.5	4
2.1	Research and plan how the queueing system for the orders list can be implemented in the staff app	Using a boolean lock system in the database I should be able to lock the order by its id which will prevent other staff members from accessing it while when the user on the order page leaves that page it unlocks to prevent it being permanently locked. Might need more research for learning how to use the SQL calls.	Complete	Jake	2	2	0
2.2	Research and plan how the queueing system for the orders list can be implemented in the staff app	So far I am thinking of adding the SharedPreferences from customer to staff as this will assist in attaining the staffID so it can be tethered to an order in a database.	Complete	Jacob	2	3	0
<a href="#">2.3</a>	Implement the queueing system in the Staff app	Jacob's locking system and add to queue system functions correctly and has nothing extra to add so I am respecting into the complete order part of the queueing system.	Complete	Jake	4	5	0
<a href="#">2.4.1</a> <a href="#">2.4.2</a>	Implement Queueing System Add to Queue in the Staff app	When the start order button is clicked the staff member's id is bound to that order.	Complete	Jacob	4	8.5	0
<a href="#">2.5.1</a> <a href="#">2.5.2</a>	Additional implementation to assist Add to Queue and add	Unlock the order if the staff leaves the order page after opening it to	Complete	Jacob	3	6	0

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

	proper locking mechanism	safeguard against crashing / closing the app. Also kicks the last staff member if 2 staff members click start order at the same time (locks order).					
<a href="#">2.6.1</a> <a href="#">2.6.2</a>	Implementation of the remove from queue system (complete order).	Implemented the complete order function made up of deleting the order from orders and staff queue tables along with adding it to a completed orders table and leaving the order screen. This is functional but optimally should have 2.8 implemented also.	Complete	Jake	4	7	0
<a href="#">2.7</a>	Figure out and fix problem regarding indexoutofbound error in queueing system	mOrders is always 0 when it occurs, I believe it was something to do with the timer and the amount and speed it refreshes the orders - after a lot of trial and error seems to be fixed	Complete	Jacob	4	4	0
2.8	Implementing functional checkboxes and order complete button locking.	Implementing the java code is a slight issue but db operations are mostly done.	Incomplete	Jake	4	2	2
2.9.1	Test implementation of queueing system	Didn't have time to complete testing because the implementation hasn't been completed.	Incomplete	Jake	1	0	1
2.9.2	Test implementation of queueing system add to queue	Didn't have time to complete testing - will be done first thing	Incomplete	Jacob	1	0	1
3.0	Finalise the cafe menu object/database table structure to allow for drink customisation and implement menu options within the customer app.	The menu options for the cafe menu have been fully implemented. Also passed the end of iteration UAT.	Complete	Benn	25	23	0
<a href="#">3.1.1</a> <a href="#">3.1.2</a>	Research and plan how to implement the full menu subsystem/database structure for customisable drinks	I have planned out the first part of the implementation, with database structure finalised for menu items and from research I have an understanding of how the radio buttons/dynamic views should work in theory. Need to conduct more research into how to implement dynamic views	Complete	Benn	3	3.5	0

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

		and radio buttons for each menu item.					
<a href="#">3.2.1</a> <a href="#">3.2.2</a> <a href="#">3.2.3</a> <a href="#">3.2.4</a>	Implement the test version of menu options and changes to Browse Menu in the customer app/server code	Have implemented a basic test version of a dynamic view based on the boolean values for each menu item. Radio button options are present in the layout but need to look into how to take values from the selected option.	Complete	Benn	4	4	0
<a href="#">3.3</a>	Research how to implement dynamic views/layouts and radio button/checkbox functionality	Watched some Youtube tutorials on how to construct dynamic views/layouts within Android Studio. Also watched videos on how to implement radio button/checkboxes along with listeners	Complete	Benn	2	1	0
<a href="#">3.4.1</a> <a href="#">3.4.2</a>	Implement 'extras' selection in the menu options allowing for a user to select from vanilla, caramel, chocolate & whipped cream	Extras selection is now implemented in the AddToCartActivity and successfully adds the menu item plus extras selections to the 'cartitem' database table. Checkboxes have been used to allow for multiple selections.	Complete	Benn	2	2.5	0
<a href="#">3.5.1</a> <a href="#">3.5.2</a>	Implement remaining selection options in the Customer App (frappe flavour and heated) along with a quantity button. Adjust server methods to accommodate new features.	Frappe and Heated selection along with associated XML implemented and working in the app. Also added a quantity button that is now working and taking in quantities higher than 1 for menu items. Server methods updated for addToCart which now checks for exact matches in the users cart and either adds the new menu item to cart or if an exact match adds the new quantity value to the existing quantity for that item in the cartItem table.	Complete	Benn	4	4	0

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

<a href="#">3.6.1</a> <a href="#">3.6.2</a> <a href="#">3.6.3</a> <a href="#">3.6.4</a>	Split the cafe menu into two menus within the Customer app - 'food' and 'drinks'.	The Customer app now displays separate menus for food and drink. This works off an itemType variable. On the server getItems has been adjusted along with the addToCart method.	Complete	Benn	3	2.5	0
<a href="#">3.7.1</a> <a href="#">3.7.2</a> <a href="#">3.7.3</a>	Adjust CartActivity XML file and the associated server get method to display the menu options chosen by the customer for each item	CartActivity XML file updated after watching some instructional videos on how to properly set XML in Android Studio. getCartItems server method updated to retrieve all the menu option variables from the cartitem table for displaying in the app.	Complete	Benn	3	2.5	0
<a href="#">3.8.1</a> <a href="#">3.8.2</a>	Add comment field to AddToCartActivity	Added a comment field to the AddToCartActivity so the customer can add any extra specifications for a coffee/menu item that aren't captured by the selectable menu options e.g. "extra foam on coffee". Updated addToCart, getCartItemQuantity and getCartItems methods on the server to incorporate the new variable.	Complete	Benn	2	1.5	0
<a href="#">3.9.1</a>	Update order items layout XML so individual menu item options for a customers order are displayed for the Cafe staff	Updated the layout XML so menu options selected by the customer are then displayed for the cafe staff while they are filling an order. Also updated the adapter to display these options.	Complete	Benn	2	1.5	0
4.0	Plan and then implement inventory system within the server/database for the cafe	Did not get time to address this task this iteration. Will be carried over and addressed next iteration.	Incomplete	Benn	6	0	6
4.1	Plan/research an inventory system that will work in conjunction with our menu system	Did not get time to address this task this iteration. Will be carried over and addressed next iteration.	Incomplete	Benn	2	0	2

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

4.2	Implement the inventory system in the server/database and Customer app	Did not get time to address this task this iteration. Will be carried over and addressed next iteration.	Incomplete	Benn	4	0	4
5.0	Conduct research into implementing the View Order use-case. Implement and then test the View Order use-case.	Queueing was prioritised.	Incomplete	Jake	7	0	7
5.1	Research anything I might not understand that is required to implement the use case.	Queueing was prioritised.	Incomplete	Jake	1	0	1
5.2	Implementing view order use case.	Queueing was prioritised.	Incomplete	Jake	4	0	4
5.3	Test implementation to check that it works correctly.	Queueing was prioritised.	Incomplete	Jake	2	0	2
6.0	Implement regex/input validation to remove bad input for the Book Delivery address input page	Started to look at the Places API. Job will carry over to the next iteration.	Incomplete	Emily	4	2.5	2
6.1	Research a method for validating user input for the Book Delivery use-case	Trying to use places API	Complete	Emily	2	1.5	0
6.2	Implement the regex/input validation for Book Delivery address input	Will carry over to the next iteration.	Incomplete	Emily	2	1	2
7.0	Write UATs for end of iteration testing		Complete	Benn	4	4	0
<a href="#">7.1</a>	Write UATs for end of iteration testing	UATs written for the menu options (Fill Cart/Place Order) and the staff queueing system (Fill Order).	Complete	Benn	3	3.5	0
<a href="#">7.2</a>	Check UAT document/results and commit to repository	Checked over the UAT for any errors and then committed the results to our repository.	Complete	Benn	0.5	0.5	0
8.0	Conduct end of iteration UAT testing on implemented use-cases	UATs completed by all team members for the menu options (Fill Cart/Place Order) and the	Complete	Multiple	4	4.5	0

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

		staff queueing system (Fill Order).					
<a href="#">8.1</a>	Conduct end of iteration UAT testing on implemented use-cases	UATs completed for the menu options (Fill Cart/Place Order) and the staff queueing system (Fill Order).	Complete	Benn	1	1	0
<a href="#">8.2</a>	Conduct end of iteration UAT testing on implemented use-cases	UAT testing completed successfully.	Complete	Emily	1	1	0
<a href="#">8.3</a>	Conduct end of iteration UAT testing on implemented use-cases	Had no issues conducting UAT testing and completed them all with passes.	Complete	Jake	1	1.5	0
<a href="#">8.4</a>	Conduct end of iteration UAT testing on implemented use-cases	UAT testing completed successfully.	Complete	Jacob	1	1	0
9.0	Compile photos for each menu item	Did not get time to address this task this iteration. Will be carried over and addressed next iteration.	Incomplete	Emily	4	0	4
9.1	Find test images for the menu	Did not get time to address this task this iteration. Will be carried over and addressed next iteration.	Incomplete	Emily	1	0	1
9.2	Research how to add them to the database	Did not get time to address this task this iteration. Will be carried over and addressed next iteration.	Incomplete	Emily	3	0	3
10.0	Push the latest version of the local server up to the web server. Address Create User and other functional issues.	Latest version of our PHP server has been pushed to the web server and is fully operational.	Complete	Benn	4.5	5.5	0
10.1	Push the latest version of the local server up to our hosted web server (beveragebooker.com)	Latest version of our PHP server has been pushed to the web server.	Complete	Benn	0.5	0.5	0
10.2	Try to fix the issue of Create User not working	Create User issue was troubleshooted and fixed. Looked at Android side issues but the problem ended up being database related.	Complete	Benn	2	3	0



Beverage Booker	
Iteration Plan 3	Date: 10/08/20

10.3	Troubleshoot the issue of many PHP server methods not working on the web server when the exact same server works locally with our database	Used Postman to test our methods and trace the issues. Was mainly due to minor name inconsistencies. An example would be the 'cartitem' table. Sometimes this was incorrectly camel-cased as 'cartItem' in SQL statements. Despite using a MySQL database locally and on the web server only the web server was picking up on the incorrect database table name and giving an error.	Complete	Benn	2	2	0
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Beverage Booker	
Iteration Plan 3	Date: 10/08/20

## 4. Issues

Issue	Status	Notes
No issues to report this iteration.		

## 5. Assessment

Assessment target	To complete all assigned jobs by the end of the iteration.
Assessment date	23/8/20
Participants	Benn Curby, Emily Carter, Jake Durnford and Jacob Kennedy
Project status	<b>Orange/Green</b> - Most jobs completed or partially completed due to time constraints.

### Assessment against objectives:

#### Key:

**Complete** - Completed successfully this iteration.

**Incomplete** - Remains incomplete but not due to lack of time devoted by assigned team members and/or is postponed/rescheduled.

**Incomplete** - Remains incomplete and will require explanation and/or escalation.

Objective	Status
Complete push notification mechanism and implement in the Staff/Customer app	<b>Incomplete</b> - Push notifications remain incomplete. Emily made progress this iteration but had difficulty with the backend trigger upon order completion. This task has been escalated and Benn has been assigned to mitigate the risk.
Devise a method and implement a queueing system for incoming orders in the Cafe Staff app	<p><b>Complete</b> - Queueing system has been successfully implemented. It has also passed a round of UAT testing, with one bug removed.</p> <p><b>Incomplete</b> - Jake is still working on a related part of the Fill Order use-case where checkboxes for each order item need to be saved as checked/unchecked if a team member backs out of filling an order.</p> <p><b>Incomplete</b> - Automated testing was not completed due to time constraints but will be completed as a priority next iteration.</p>
Finalise the cafe menu object/database table structure to allow for drink customisation and implement menu options within the customer app	<b>Complete</b> - Menu options have been implemented within the Customer App, allowing for customisation of drinks/food.

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

Plan and then implement inventory system within the server/database for the cafe	<b>Incomplete</b> - Benn did not get to this task this iteration due to time constraints - finishing the menu options was prioritised. This task will be completed next iteration.
Conduct research into implementing the View Order use-case. Implement and then test the View Order use-case	<b>Incomplete</b> - Jake did not get to this task this iteration due to time constraints - finishing the complete order function (Fill Order/Queueing) was prioritised. This task will be completed next iteration.
Implement regex/input validation to remove bad input for the Book Delivery address input page	<b>Incomplete</b> - Emily has started the Book Delivery task but it was not completed due to time constraints. This task will carry over to the next iteration.
Write UATs for end of iteration testing	<b>Complete</b> - Benn wrote the end of iteration UATs for the menu options (Fill Cart/Place Order) and the staff queueing system (Fill Order).
Conduct end of iteration UAT testing on implemented use-cases	<b>Complete</b> - All team members successfully completed the end of iteration UATs for the menu options (Fill Cart/Place Order) and the staff queueing system (Fill Order).
Compile photos for each menu item	<b>Incomplete</b> - Emily did not get to this task due to time constraints - finishing push notifications was prioritised. This job will carry over to the next iteration.
Push the latest version of the local server up to the web server. Address Create User and other functional issues.	<b>Complete</b> - Benn successfully updated the web server and database with the latest changes. Create User and other functional issues were also addressed. The web server was used for the end of iteration UATs without any issues.

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

## Deviations / Ongoing Tasks:

Deviations from the iteration plan and tasks that carry over into the next iteration.

### Key:

**Ongoing** - Remains incomplete and is carrying over into the next iteration.

**Ongoing** - Remains incomplete and is carrying over into the next iteration - but will be escalated and assessed/completed as a priority.

**Postponed** - Remains incomplete and was not started this iteration. Task will carry over to the next iteration.

**Postponed** - Remains incomplete and was not started this iteration. Task will carry over to the next iteration and be completed as a priority/will be escalated.

**Reassigned** - Job has been reassigned to a new team member.

**Reassigned** - Job has been reassigned to a new team member/members and has been prioritised/escalated.

Objective	Status
Complete push notification mechanism and implement in the Staff/Customer app	<b>Ongoing</b> - Push notifications remain incomplete. Emily made progress this iteration but had difficulty with the backend trigger upon order completion. This task has been escalated and Benn has been assigned to mitigate the risk.
Devise a method and implement a queueing system for incoming orders in the Cafe Staff app	<b>Ongoing</b> - Jake is still working on a related part of the Fill Order use-case where checkboxes for each order item need to be saved as checked/unchecked if a team member backs out of filling an order.  <b>Ongoing</b> - Automated testing was not completed due to time constraints but will be completed as a priority next iteration.
Plan and then implement inventory system within the server/database for the cafe	<b>Postponed</b> - Benn did not get to this task this iteration due to time constraints - finishing the menu options was prioritised. This task will be completed next iteration as a priority.
Conduct research into implementing the View Order use-case. Implement and then test the View Order use-case	<b>Postponed</b> - Jake did not get to this task this iteration due to time constraints - finishing the complete order function (Fill Order/Queueing) was prioritised. This task will be completed next iteration as a priority.
Implement regex/input validation to remove bad input for the Book Delivery address input page	<b>Ongoing</b> - Emily has started the Book Delivery task but it was not completed due to time constraints. This task will carry over to the next iteration.
Compile photos for each menu item	<b>Postponed</b> - Emily did not get to this task due to time constraints - finishing push notifications was prioritised. This job will carry over to the next iteration.

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

Beverage Booker	
Iteration Plan 3	Date: 10/08/20

## Additions:

Tasks that were added mid iteration.

### Key:

**Complete** - Completed successfully this iteration.

**Ongoing** - Remains incomplete and is carrying over into the next iteration.

**Ongoing** - Remains incomplete and is carrying over into the next iteration - but will be escalated and assessed/completed as a priority.

Objective	Status
Push the latest version of the local server up to the web server. Address Create User and other functional issues.	<b>Complete</b> - Benn successfully updated the web server and database with the latest changes. Create User and other functional issues were also addressed. The web server was used for the end of iteration UATs without any issues.

## 6. Risk Mitigation / Escalation

Tasks that require escalation or risk mitigation strategies.

### Key:

**Complete** - Completed successfully this iteration.

**Ongoing** - Remains incomplete and will be addressed next iteration as a priority.

Risk	Status
Complete push notification mechanism and implement in the Staff/Customer app	<b>Escalated</b> and <b>Ongoing</b> - Push notifications remain incomplete but not due to a lack of time/effort on Emily's part. We have escalated this task with Benn also now assigned to mitigate the risk. This task will be addressed as a priority next iteration and will be assessed by the team mid iteration for feasibility if not completed by this stage. If not feasible then an alternative measure using the View Order use-case for order completion tracking will be used.
Devise a method and implement a queueing system for incoming orders in the Cafe Staff app	<b>Escalated</b> and <b>Complete</b> - This task was immediately escalated at the beginning of the iteration, with Jake and Jacob both assigned to mitigate risk. This approach worked well, with the queueing system now fully functioning.