

# ISAD 251 Coursework – Tea Room Application

## Application Design Document

### Contents

Links .....	1
Introduction .....	1
Storyboard .....	1
Entity relationship diagram.....	5
Settings and Images .....	5
Feedback .....	5
Peer review of storyboard .....	5
Peer review of demo.....	7
Analysis .....	7

### Links

GitHub repository: [https://github.com/Squidgeypea/isad251\\_cw](https://github.com/Squidgeypea/isad251_cw)

Project board: [https://github.com/Squidgeypea/isad251\\_cw/projects](https://github.com/Squidgeypea/isad251_cw/projects)

### Introduction

This application is based on the theme of a tea room situated on board a fictional steam train, The Puffing Express, in the style of a train's restaurant car. The application could be presented within the 'tea car' on a self-service device, integrated into the structure of the room, like the self-service devices currently found in some popular fast food outlets, or it could be accessed using a personal mobile device.

A GitHub project board was used to organise tasks and keep track of work.

### Storyboard

The storyboard was edited to act on advice and ideas presented at the peer review.

The initial storyboard is displayed here. The final storyboard is shown on page six of this document.

### 1. Home page *Assumes user is a customer*

The Home page layout includes a top navigation bar with a logo (1), a staff login button (7), and a 'My order (2)' button. The main content area features a 'Welcome' message, two large image placeholders for 'Picture of drinks' and 'Picture of snacks', and corresponding 'Browse drinks' (2) and 'Browse snacks' (3) buttons. A footer contains a disclaimer, terms and conditions, and a date field.

### 2. Drinks menu

The Drinks menu layout shows a 'Drinks menu' title and a list of items, each with a picture placeholder (pic), item name, price (£x.xx), and an 'Add' button (+). A red arrow points from an 'Add' button to the 'My order (2)' sidebar. The sidebar contains a list of items with 'remove' (X) buttons, a 'Remove all (X)' button, a 'Total: £x.xx' label, and a 'Complete' button (5). A scroll bar is indicated on the right side of the sidebar.

### 3. Snacks menu

The Snacks menu layout is similar to the Drinks menu, with a 'Snacks menu' title and a list of items. A red arrow points from an 'Add' button to the 'My order (2)' sidebar. The sidebar contains a list of items with 'remove' (X) buttons, a 'Total: £x.xx' label, and a 'Complete' button (5). A scroll bar is indicated on the right side of the sidebar.

### 4. Item information popup (not a separate page)

The Item information popup layout includes a close button (X), a 'Picture of item' placeholder, an 'Item name' label, a price (£x.xx), and three text fields for 'Portion size: xxxxxxxxxx', 'Ingredients: xxxxxxxxxxxxxx', and 'Allergy warnings: xxxxxxxx'. The background is greyed out, and a scroll bar is indicated on the right side.

### 5. Order finalisation

logo 1

TITLE

Confirm order

pic

Item

£x.xx

pic

Item

£x.xx

Table number:

Total: £x.xx

Cancel 2

Complete 6

Disclaimer

Ts & Cs etc

Date

### 6. Order complete

logo 1

TITLE

Order Complete

Thank you for your order

Table: 04

Order number: 06

Please pay when you leave

Disclaimer

Ts & Cs etc

Date

### 7. Staff login

logo 1

TITLE

Staff Login

This page will time out in  seconds. In case they start logging in and get distracted

Staff Number:

Password:

Go 8

Disclaimer

Ts & Cs etc

Date

### 8. Staff view of orders

logo 1

Products 10

priority

Time	Table	Order	Actions
12:44	01	Coffee x 2	<input checked="" type="checkbox"/> <input type="checkbox"/>
12:48	09	Water x 1 Biscuit x 1	<input checked="" type="checkbox"/> <input type="checkbox"/>
12:55	05	Coffee x 1 Cake x 1	<input checked="" type="checkbox"/> <input type="checkbox"/>

1

Log out

Name

delivered

cancel

9

9

Disclaimer

Ts & Cs etc

Date

## 9. Confirmation of action

logo 1

TITLE

Confirm action

Name

Log out 1

Time	Table	Order
12:44	01	Coffee x 2

Cancel this order

Back 8

Confirm 8

Disclaimer

Ts & Cs etc

Date

## 10. View products

logo 1

TITLE

Current products

Name

Log out 1

Orders 8

Add new product 11

Drinks

Snacks

On sale

pic Item 4 £x.xx edit X

pic Item 4 £x.xx edit X

pic Item 4 £x.xx edit X

On sale 11

pic Item 4 £x.xx edit X

pic Item 4 £x.xx edit X

Not on sale

pic Item 4 £x.xx edit X

Remove from sale

Place on sale

Disclaimer

Ts & Cs etc

Date

## 11. Add/edit a product

logo 1

TITLE

Edit product

Name

Log out 1

same form for adding new product but blank

Name: Cake

Image: cake.png Change

Price: £ 1.75

Information: Ingredients: Flour, butter...

Drink ☐

Snack ☐

Cancel 10

Save 10

Disclaimer

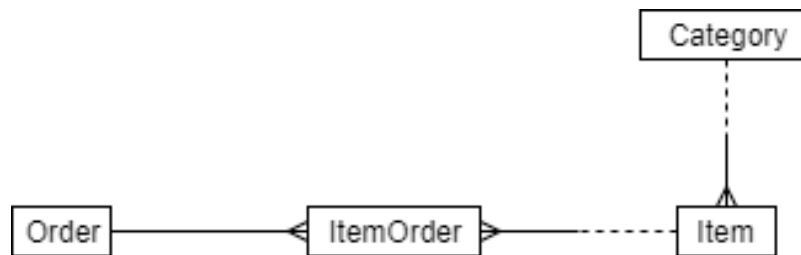
Ts & Cs etc

Date

## Entity relationship diagram

The entity relationship diagram was created using the web site, Draw.io.

Although the category could have been an attribute of an item, it was decided that it would be a separate entity. This was because it would then be easier for a category to be made or removed, and for categories to have their own descriptions without repeating the same thing for each item. It also led to looser coupling.



## Settings and Images

Resource name	Resource type	Use in application	Source
favicon	Image	Icon	Myself
rooibos.jpg	Image	Customer area	<a href="https://www.thesun.co.uk/fabulous/10030257/tea-drink-teabag-plastic-billions-particles/">https://www.thesun.co.uk/fabulous/10030257/tea-drink-teabag-plastic-billions-particles/</a>
notepad.jpg	Image	Staff area	<a href="https://ectacenter.org/decrp/type-checklists.asp">https://ectacenter.org/decrp/type-checklists.asp</a>
1393497919.jpg	Image	Background	<a href="https://www.trainsafaris.com/uploads/2/1/2/7/21279846/1393497919.jpg">https://www.trainsafaris.com/uploads/2/1/2/7/21279846/1393497919.jpg</a>

## Feedback

### Peer review of storyboard

Peer reviews of the storyboard were carried out on 15/10/2019.

Reviewer name	Avy Gurung	Max Barker	Josh Franklin
Errors identified	Add/edit item part needs a category.	Basket may be incompatible with mobile devices.	Database will not be correctly populated with new item without category.
Unclear parts	None.	None.	None.
Inspiration gained	Include date in orders.	None.	Include category in add new item part.
Constructive advice	Include category in add/edit.	Make basket a slide-out or drop-down for mobile devices.	Have 'on sale' Boolean rather than just deleting an item. Include functionality for forgotten passwords and to add new staff members.

The storyboard was changed after the peer review and it was simplified a lot because a simpler application would be better for users and better in terms of code structure.

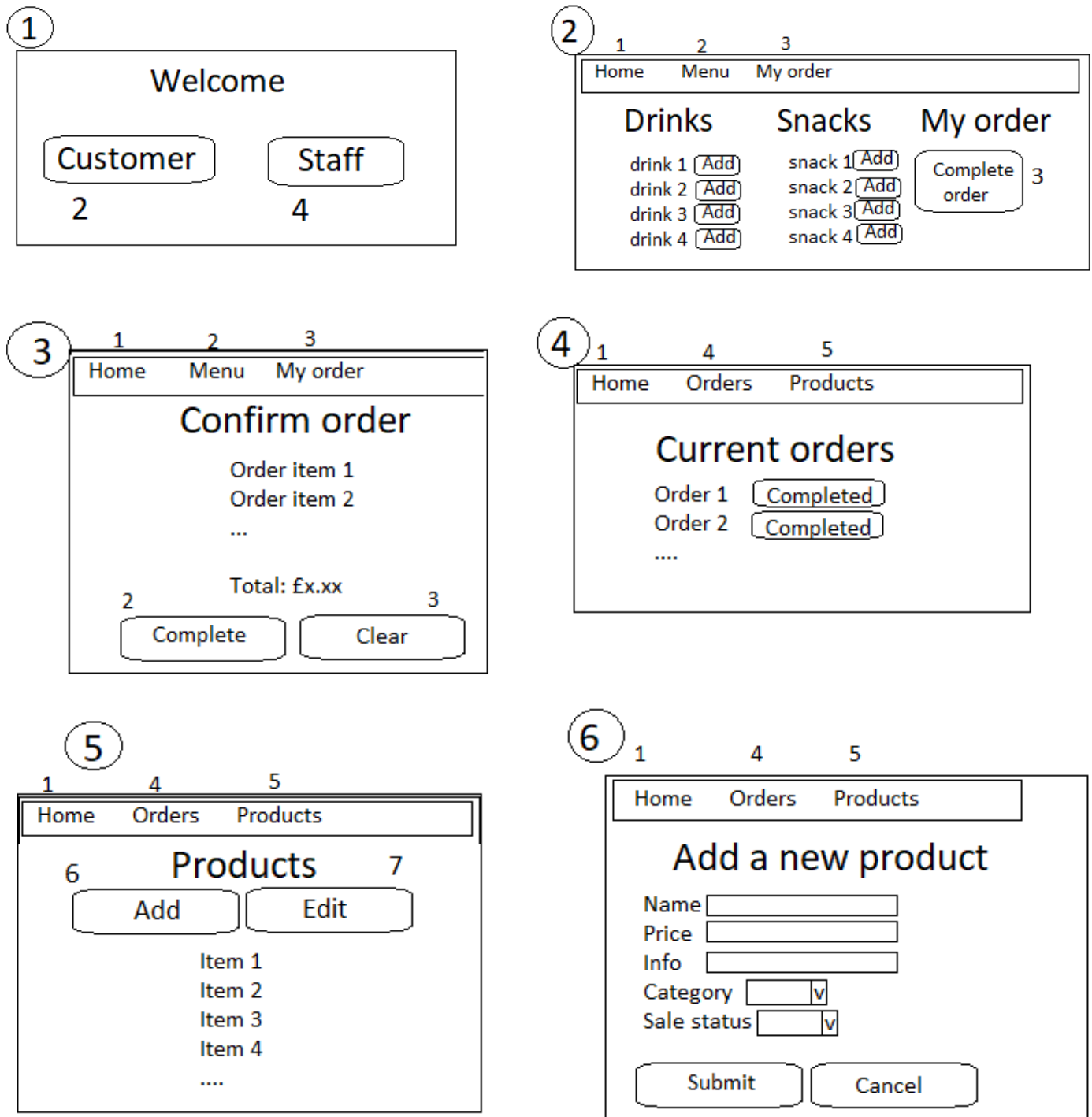
The following changes were made to the initial storyboard, to act on feedback received during the peer review.

It was suggested that the 'My order' section should be simplified. This advice was followed.

It was pointed out that it was necessary to include the product category in the form to add or edit a product. This is because products will be shown to customers based on their category, which must not be null in the database.

A peer commented that it would be preferable to remove a product from sale than to remove it from view altogether. This way, a staff member could easily decide to sell the product again in future without having to recreate the product. Since it would be easy to put the removed product back on sale, it was decided that screen 12 would no longer be necessary, and it was removed from the storyboard. Screen 10 was adapted to show the change.

Below is the simplified final design for the storyboard:



7

1                      4                      5

Home   Orders   Products

## Edit a product

Product to change  v

Name

Price

Info

Category  v

Sale status  v

Submit   Cancel

### Peer review of demo

Reviewer name	Morgan Wilson	Morgan Hill	Dan Skillman
Errors identified	Staff member can't remove an order from their view of orders.	When a new customer uses the system, the previous customer's order is still shown.	Customer might not realise that their items have been added.
Unclear parts	None.	None.	None.
Inspiration gained	Use nice looking buttons rather than just text.	None.	Structure the README file so that it's easy to read.
Constructive advice	Make sure staff can update/remove orders from their list.	Make sure the page is reset each time a new customer uses it.	Display a message telling them that their items were added.

It was suggested that the staff should be able to remove an order from their view once it was completed. This advice was following by adding a 'completed' field to the database. This way, orders could be shown to staff if they had not been completed, and if they had been completed, they would remain in the database but not be visible.

It was pointed out that a customer should start on a 'blank canvas', a page with nothing already selected. This was achieved by clearing the incomplete orders each time the home page is loaded. This ensures that the basket cannot fill up with unwanted orders.

A peer commented that customers should be alerted when they added items to their basket. This was done by including a code block in the view which displayed a message on the screen when they added an item to their order.

### Analysis

Listed below are further improvements which could have been made, in addition to the suggestions from the reviews.

- Include the option to add a new category besides drinks and snacks.
- Make the application compatible for mobile devices.
- Include a login system for different users.
- Provide the option to add a new staff member.