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# Tealet Documentation

## Background

Tealet is a simple milk tea web application created using servlets, and jsps, following the MVC model. Its pages are dynamically generated from the server based on the user's input. Other factors, such as time, also have control over the website's content to better emulate the product changes, and promotions.

## Web Application Details

### Model

#### Milktea.java

A helper class specifically created to handle form input from *menu.jsp*. This class creates a Milktea object that corresponds to the specifications of the user.

Allows computation, and easier retrieval of form input.

#### Order.java

A helper class specifically created to handle form input from *result.jsp*. This class creates an Order object that corresponds to the specifications of the user.

This class allows *order.jsp* to present the user an overview/result of their previously selected input.

### Service Class

#### MilkteaService.java

A class created to display the necessary information of the various milk tea options on the *menu.jsp.*

Returns a List of Milktea objects created from the *Milktea.java* class.

***View***

### ***Error Pages***

#### ***error404.jsp***

A customized error page that handles all 404 status codes.

Also provides the user a button to be redirected back to the home page, *index.jsp*, of the web application.

#### ***error500.jsp***

A customized error page that handles all 500 status codes.

#### ***errorIAE.jsp***

A customized error page that handles a specific exception, InvalidArgumentException.

### ***Web Pages***

#### ***index.jsp***

The application's home page. It also acts as the very first page on the web.xml's welcome file list.

Provides the user with links to be redirected to the different pages of the web application.

#### ***indexXmas.jsp***

The application's customized home page every December. It is the second page on the web.xml's welcome file list.

Provides the user with links to be redirected to the different pages of the web application.

#### ***contactDetails.jsp***

A page to reach the company's customer support.

#### ***menu.jsp***

The web application's most important page.

This displays the menu, which contains an image of the drink, and its corresponding price, current promotions (by being redirected to an image), and a link to a downloadable menu for offline use (PDF).

### *result.jsp*

Used to show the user's selected milk tea in a more detailed view. Additionally, the user can also select specifics in regards to the drink's size, and the quantity to be ordered.

There is also a coupon text area for the user to input a valid coupon code.

### *order.jsp*

Functions as a receipt for the user.

Displays the necessary information in regards to the user's order details, such as the flavor selected, size, quantity, coupon code (if any), discount (if any), and total price.

## Controller

### *DownloadSelect.java*

The request received is sent by the menu.jsp.

Provides the user with an attachment, *menu.pdf*, for downloading.

### *ErrorRedirectHome.java*

The request received is sent by the error404.jsp.

Additionally, provides the user an opportunity to be redirected to the home page of the web application, index.jsp.

### *ImageRedirect.java*

The request received is sent by the menu.jsp.

This servlet's response is of type png, showing the user the current promotions of the establishment, if any.

### *MenuFlavors.java*

Adds another Milktea object, the monthlyMilktea (a milk tea that is only available for a certain month/period of time), into the List of the milkteaService class.

The list is received by the menu.jsp.

### *MilkteaSelect.java*

This servlet controls the milk tea displayed, and its corresponding details in result.jsp.

It creates the Milktea object according to the flavor which was selected by the user in menu.jsp. This object is then passed to the result.jsp by utilizing the RequestDispatcher.

### *ProcessOrder.java*

The request received is sent by the result.jsp.

It creates an Order object according to the input specifications (flavor, price, size, quantity, and coupon code) of the user in result.jsp. Afterwards, it forwards the Order object by utilizing the RequestDispatcher.

### *Listener Class*

#### *SeasonContextListener.java*

It checks the current month as the user instantiates the web application. If it satisfies a particular month, in this case, December, it adds an additional drink to the menu.

**Required Components:**

*Config Object:*

1. Freebie
2. Coupon Code

*Context Object:*

1. Email Address
2. Hotline No.
3. Monthly Flavor Price
4. Monthly Flavor Name
5. Monthly Flavor Description
6. Monthly Flavor Image Path
7. MilkteaService Object
8. Milktea Object

*ContextListener:*

1. Monthly Milk Tea

*setContentType:*

1. Promos (image/png)
2. Menu List (application/pdf)

*sendRedirect (absolute):*

1. index.jsp to indexXmas.jsp
2. indexXmas.jsp to index.jsp

*sendRedirect (relative):*

1. Error404.jsp to index.jsp

*RequestDispatcher.forward():*

1. MilkteaSelect.java to result.jsp

*RequestDispatcher.include():*

1. ProcessOrder.java to order.jsp

*Welcome Pages:*

1. Home Page

2. Home Page (Christmas)

***Error Pages:***

1. Error 404
2. Error 500
3. Illegal Argument Exception

***Response Header (coded):***

1. Content-Type
   a. image/png
   b. application/pdf
2. Content-Disposition
3. Status
4. Cache-Control
5. Connection
6. Content-Language

## Screenshots of Tealet WebApp

The web app's pages are dynamically generated, and are semi-responsive since the developers utilized flexbox.
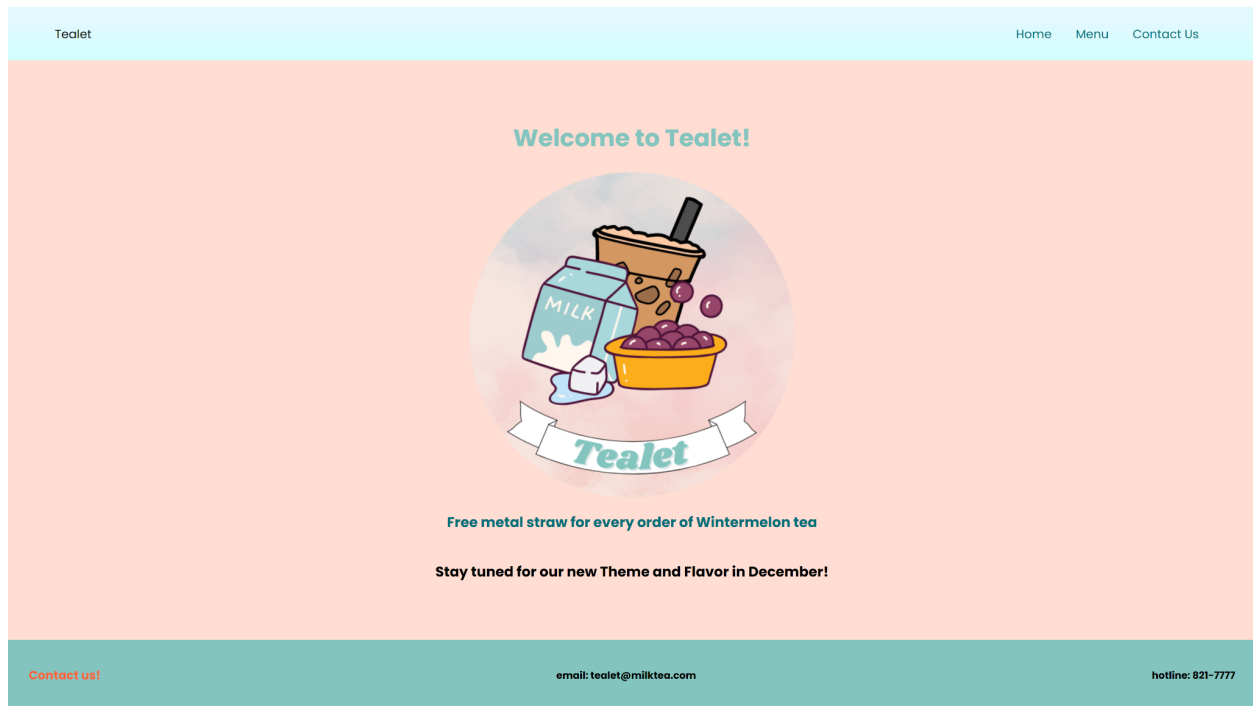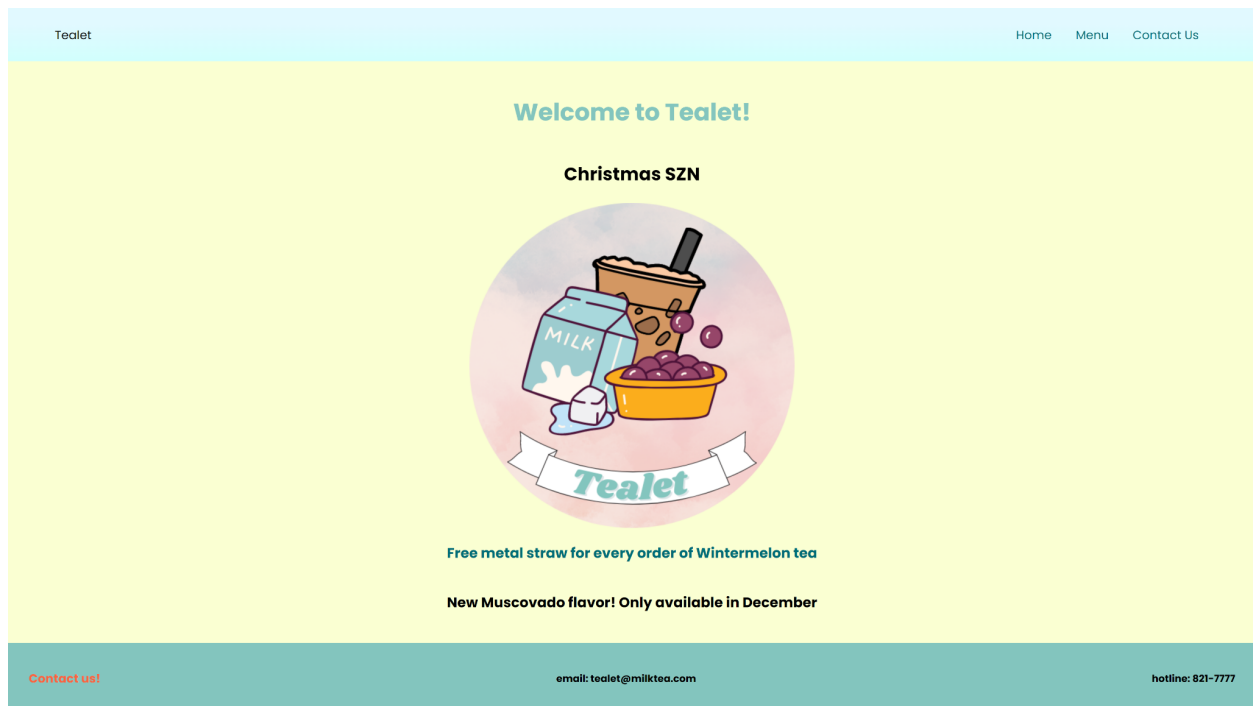


*Figure 1.a. Home Page*
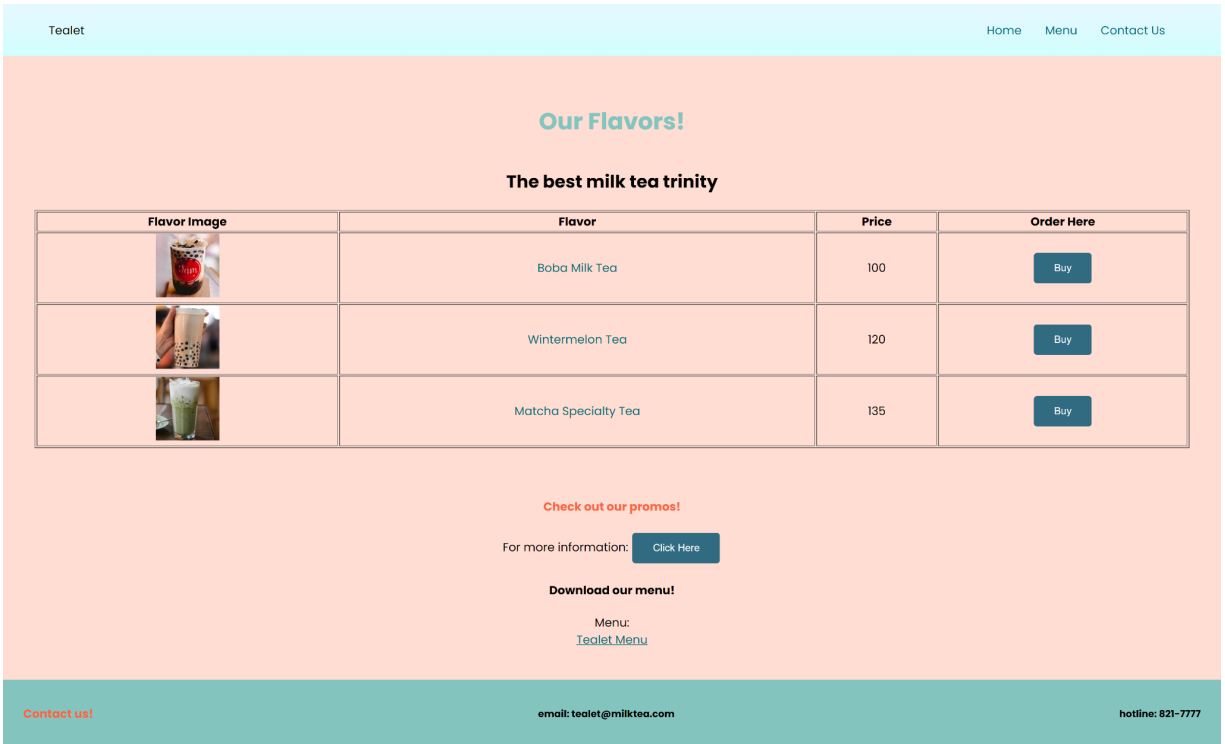


*Figure 1.b. Home Christmas Theme*

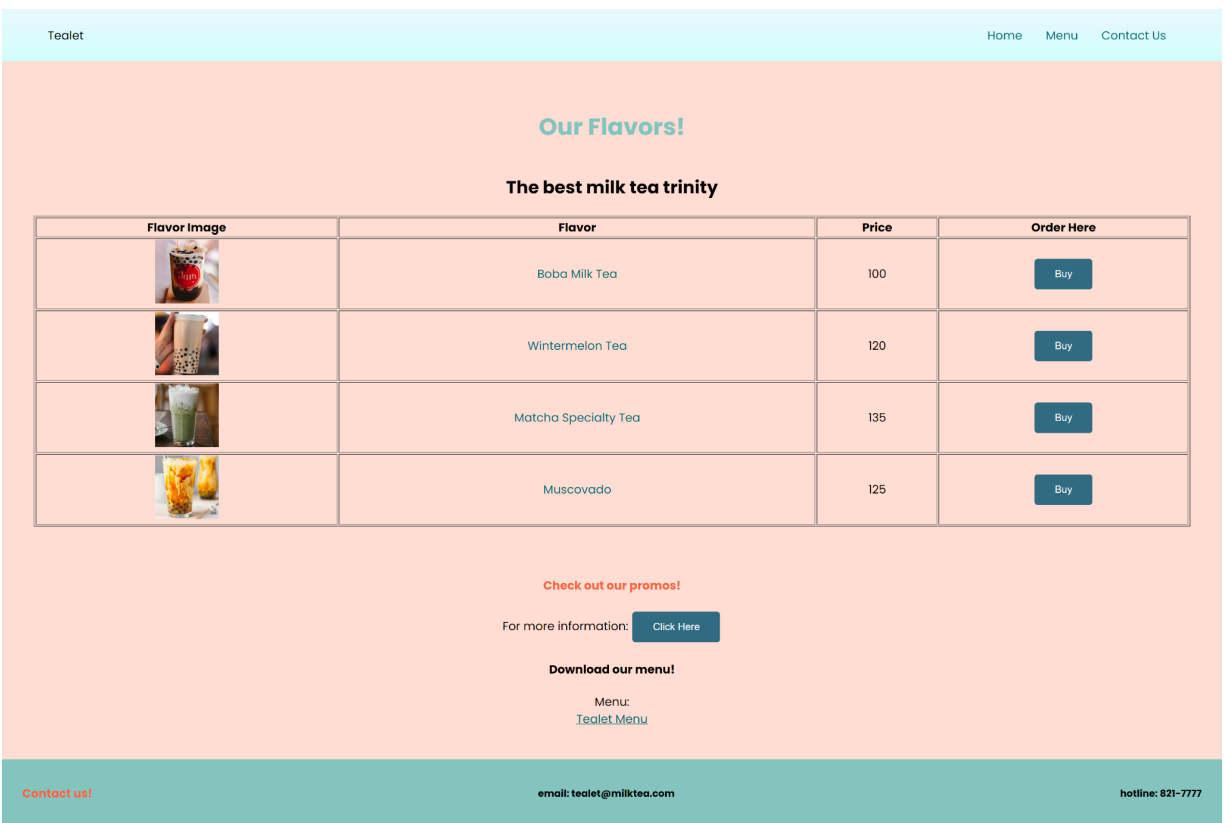Home    Menu    Contact Us

## Our Flavors!

### The best milk tea trinity

| Flavor Image | Flavor | Price | Order Here |
|---|---|---|---|
| | Boba Milk Tea | 100 | Buy |
| | Wintermelon Tea | 120 | Buy |
| | Matcha Specialty Tea | 135 | Buy |

**Check out our promos!**

For more information:  Click Here

**Download our menu!**

Menu:
Tealet Menu

**Contact us!**            email: tealet@milktea.com            hotline: 821-7777

*Figure 2.a. Menu*

Tealet    Home    Menu    Contact Us

## Our Flavors!

### The best milk tea trinity

| Flavor Image | Flavor | Price | Order Here |
|---|---|---|---|
| | Boba Milk Tea | 100 | Buy |
| | Wintermelon Tea | 120 | Buy |
| | Matcha Specialty Tea | 135 | Buy |
| | Muscovado | 125 | Buy |

**Check out our promos!**

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Tealet Menu

**Contact us!**            email: tealet@milktea.com            hotline: 821-7777

*Figure 2.b. Special Menu for Christmas*

*Figure 3. Promo on Menu (PNG)*

*Figure 4. Download Menu on Menu (PDF)*

## Your Selected Milk Tea

### Use code "sirLawrencePogi" for 10% discount!



Selected: **Boba Milk Tea**
Base Price: **100**
Description: **A certified classic. Classic milk tea with boba pearls.**

Size

○ Small
◉ Medium (+ PHP 20)
○ Large (+ PHP 35)

Quantity: 2

Coupon: sirLawrencePogi

Order

**Figure 5. Chosen Flavor**

### You have ordered:

Flavor: Boba Milk Tea

Price: PHP 120.0

Size: Medium

Quantity: 2

Coupon Code: sirLawrencePogi

Discount: - PHP 24.0

Total: **PHP 216.0**

**Figure 6. Order Receipt**

**Tealet**   Home   Menu   Contact Us

**Contact Us**

First Name [        ]
Last Name [        ]
Email [        ]
What is this message about? [-Select- ▾]
Location [        ]

Message [                    ]

[Submit]

**Our Contact Details:**        email: tealet@milktea.com        hotline: 821-7777

*Figure 7. Contact Us*



**Page Not Found! :'(**

How did it come to this? Oh, well.
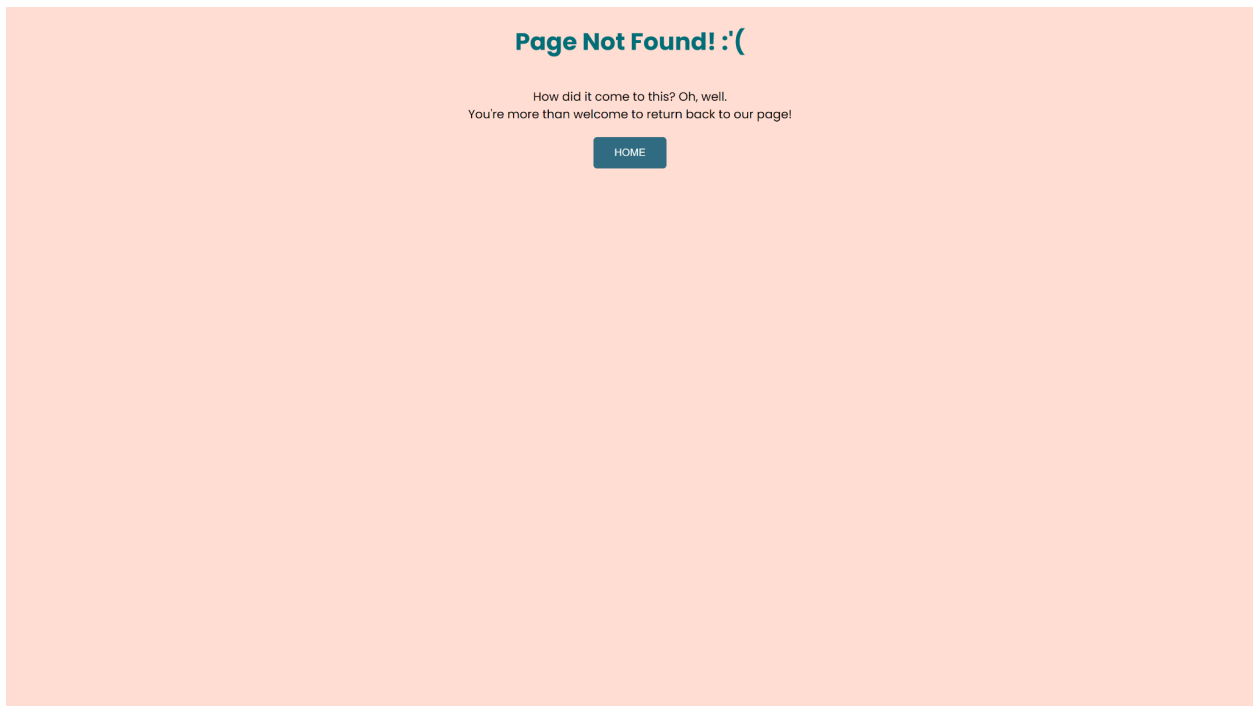You're more than welcome to return back to our page!

[HOME]

*Figure 8.a. Error Page: S.C. 404 Missing Resource*

**Internal Server Error!**

A server error! Don't worry, some of our top people are working on it.
Come back later!

*Figure 8.b. Error Page: S.C. 500 Internal Server Error*

**Woops! That's an error**

You gotta order something! You won't regret it. ;)

*Figure 8.c. Error Page: Illegal Argument Exception*