Background

Dunedin Dairy sells dairy products. You can go visit them in Dunedin, or you can order their products online from the comfort of your home (or beach or wherever). The shop uses a service-oriented architecture with a customer-facing UI front-end, and a service back-end

This assignment looks at the separation of data from the UI, and how such data can be consumed and used in the end-user application. A later assignment will also explore potential vulnerabilities that could arise when such an architecture is poorly implemented.

A small number of data sources that supply key information content from the shop have been identified. These data sources enable separation of information content from the presentation.

Note that the application you create here will not allow a user to buy any product. Buying products will require a user to register and authenticate. We will defer this to a later assignment.

### Dunedin Dairy

You are now ready to build the real application consuming the data offered at <http://redsox.uoa.auckland.ac.nz/ds/DairyService.svc/help>.

现在可以使用…网址提供的数据构建真正的应用程序了。

You may use the shop logo available at <http://redsox.uoa.auckland.ac.nz/ds/logo.svg> as you deem fit.

您可以使用…网址提供的商店标识。你认为合适就行。

A smaller PNG variant of the logo is available at <http://redsox.uoa.auckland.ac.nz/ds/logo-192x192.png>.

可以从…网址获得较小的PNG徽标。

Firstly, study the supplied endpoints and data sources carefully. You can experiment with the endpoints and sources using your browser and the inspection tools available with your browser (e.g., Web Inspector on Safari, or F12 on Firefox, Chrome and Edge).

首先，仔细研究所提供的端点和数据源。您可以使用您的浏览器和浏览器中可用的检查工具(例如，Safari上的Web检查器，或Firefox、Chrome和Edge上的F12)对端点和源进行试验。



The application should consist of the following logical sections:

application包含以下部分：

**🏠 Home (&#127968; &#x1F3E0;)**

This section is the landing place containing an introduction to the shop. Think of something attractive to say about the shop.

这部分是登陆点(windows.onload页面)，包括商店的介绍。想一些吸引人的东西来谈论这家店。

**🛒 Products (&#128722; &#x1F6D2;)**

This section contains the products available in the shop. The display list could grow large, so you will need to have a search bar to dynamically shrink the list. There is an endpoint to support this.

此部分包含商店中可用的产品。显示列表可能会变大，因此您将需要一个搜索栏来动态地缩小列表。有一个端点来支持这一点。

**📌 Location (&#128204; &#x1F4CC;)**

This section is to show a location map as well as the address and contact details of the physical shop. The location map is provided at <http://redsox.uoa.auckland.ac.nz/ds/map.png> so that you can simply link to it.

本节将显示该实体店的位置图以及地址和联系细节。该位置图提供于http://redsox.uoa.auckland.ac.nz/ds/map.png。这样你就可以直接链接到它。

**📰 News (&#128240; &#x1F4F0;)**

This is the news feed from Dunedin Dairy.

(find info. From Dunedin Dairy???)

**📖 Guest Book (&#128214; &#x1F4D6;)**

This is where guest comments can be entered into.

The application **should use a combination of HTML, CSS, and JavaScript.** Where the application needs icons, please consider using an appropriate [Unicode character](https://www.joelonsoftware.com/2003/10/08/the-absolute-minimum-every-software-developer-absolutely-positively-must-know-about-unicode-and-character-sets-no-excuses/) that represents the icon. For example, the icons used in this specification are all Unicode characters.

这里可以输入客人的评论。

应用程序应该结合使用HTML、CSS和JavaScript。当应用程序需要图标时，请考虑使用合适的Unicode字符(链接到外部站点)来表示图标。例如，本规范中使用的图标都是Unicode字符。

Please note the following requirements.

1. You are *not* allowed to use any libraries or frameworks. (Why oh why?)
2. The application should contain a single HTML page (named *UPI.html*) where *UPI* is your personal login name (such as jbon007).
3. The application should work on any modern browser (such as Chrome, Safari and Edge).
4. The application should work on small screen devices. You can test this by making your browser window narrow.
5. There are submission requirements at the end of this document. Please read and understand the whole document before attempting a solution to the assignment.

This application should be of a professional quality to attract full marks. You should pay attention to details.

Bonus

Develop a native Android or iOS application consuming the data sources provided. You should not use "boxing" techniques such as that provided by Apache Cordova , but rather develop natively using Android Studio (use Kotlin) or XCode (use Swift). Compare the native application development effort to that of the web application.

The bonus part is optional.

Submission

Please submit to the [Assignment Dropbox.](https://adb.auckland.ac.nz/) the following items.

1. The following source files of the application. (Note that images or other resources are not permitted. Images can be hot-linked from other sources if required.)
   1. The HTML file (called *UPI.html* where *UPI* is your UPI).
   2. The CSS file (called *UPI.css* where *UPI* is your UPI).
   3. The JavaScript file (called *UPI.js* where *UPI* is your UPI).
2. A **ZIP** archive containing the **source files of the bonus part** – the native application. This is optional and applies only if you have done the bonus part.

Learning Outcomes

1. Be able to design and develop a simple web application.
2. Be able to understand platform variations and dependencies.
3. An understanding of HTML5, CSS, and JavaScript.
4. Be able to use Web APIs and consume data.

Marking Scheme

MarkingSchemeUI.html（已下载）

|  |  |
| --- | --- |
| **±** | **Requirement** |
|  |  |
| **+5** | Showing the correct logo显示正确的标志√ |
| **+5** | Having an appropriate icon for the site为站点设置一个合适的图标√ |
| **+5** | Having the logical sections (home[onload site], displays, news, location, and guest book) and being able to see only one section at a time并且一次只能看到一个部分 |
| **+5** | Being able to submit comments能够提交评论 |
| **+5** | Being able to view the current set of comments能够查看当前的评论集 |
| **+5** | Being able to see the list of products能够看到产品列表 |
| **+5** | Being able to search the list of products能够搜索产品列表 |
| **+5** | Being able to shrink the list of products dynamically能够动态缩小产品列表 |
| **+5** | Being able to see the photos of products能够看到产品的照片 |
| **+5** | Being able to see a list of news items能够看到新闻项的列表 |
| **+5** | Being able to see the pictures associated with news items能够看到与新闻项目相关的图片 |
| **+5** | Being able to see details of each news item能够看到每个新闻项目的详细信息 |
| **+5** | Being able to see the location map能够看到位置地图√ |
| **+5** | Being able to see the store address能够看到商店地址√ |
| **+5** | Being able to call the store可以给商店打电话 |
| **+5** | Being able to email the store能够给商店发电子邮件 |
| **+5** | Being able to add the store's details to the address book能够将商店的详细信息添加到地址簿 |
| **+5** | Being able to view the site well on a narrow width browser (width similar to a mobile screen) 能够在窄宽度浏览器(宽度类似于移动屏幕)上很好地查看站点 |
| **+5** | The overall look and feel of the site网站的整体外观和感觉 |
| **-30%** | Use of third party framework or libraries使用第三方框架或库 |
| **-20%** | Browser incompatibility浏览器不兼容 |
| **-100%** | Violation of academic integrity or inability to explain your code违反学术诚信或无法解释你的代码 |