

ASSIGNMENT TWO

Semester 2, 2022

ITWD6.408 Advanced Internet & Web		
Weighting:	30% of final grade	
Marks:	100	
Due Date:	Week 14: Sunday 2 nd November 2022	
Time:	23:30 by EIT Online	

The School of Computing has a policy of no late assignments. However, an assignment handed in up to 24 hours late will be marked. A deduction of 20% of the total marks available will be made. Any assignments received more than 24 hours late will not be marked but can be used as evidence of completing terms.

INSTRUCTIONS

Students are to attempt all tasks.

All work submitted must be original and entirely your own work, except where you use ideas, quotations, tables, diagrams, code or any other material from other writers. In such cases you must acknowledge the source using the APA referencing style.

Unless you have prior approval from your lecturer, no part of the work submitted may be used as part of any assessed work for any other academic course.

You must upload a zip archive of your web site (as **LastnameFirstname_assignment_2.zip**) to the appropriate drop box on EIT Online (http://eitonline.eit.ac.nz) containing all the materials associated with the site.

Create a folder on you student (H:) drive called ITWD6408_Assignment2 and backup your web site.

Partial marking may occur during the course.

A completed assignment must be uploaded by 17:00 on the due date.

OVERVIEW

You have set up a new web development company, and to demonstrate your JavaScript skills you have chosen to create a prototype **Phone Fix Booking System**.

You are to create **two** tabbed html pages, as follows:

- index.html displays an itinerary form similar to the one shown in Figure 1.
- advanced.html contains the statement of authenticity and a description and/or implementation of any advanced JavaScript you have included.

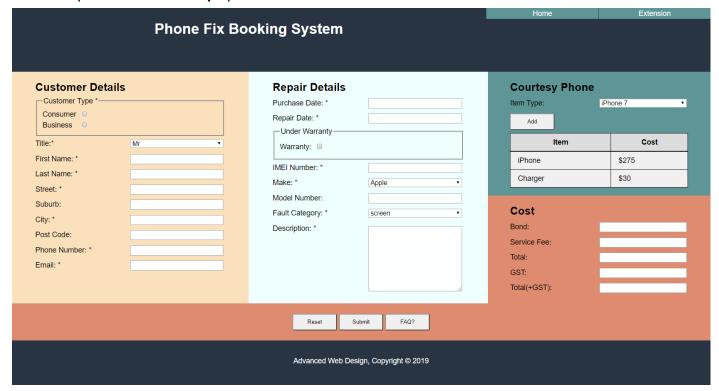


Figure 1: index.html

VALIDATION

All validation must be done in JavaScript. NO HTML5 validation.

- All fields marked with an "*" are mandatory.
- **Title** is a select box with the following options:

Mr Mrs Ms Miss Dr

- First Name & Last Name only allows for alphabetical characters, spaces and the symbol.
- Post code should be a length of 4 numbers.
- **Phone Number** only allows for numbers, spaces and (), -, + symbols.
- Email must check for @ and full stop (.) after the @. It should also have a minimum length of 5 characters.
- **Dates** (purchase date and repair date) must be valid dates (e.g. 33/14/2019 is not a real date). Dates **should not** be able to be set in to the future. The repair date must be later than the purchase date.
- Warranty should be disabled if purchase date is greater than 24 months.
- IMEI number must only be numbers with a length of 15.
- Make is a select box with the following options:

Apple LG Motorola Nokia Samsung Sony Other

Fault Category is a select box with the following options:

Battery Charging Screen SD-storage Software Other

COURTESY PHONE

This section allow users to select a courtesy phone and/or a charger. The section also allows users remove their current choice or change to another phone.

Item Type (a select box):

- "iPhones" have a cost of \$275.
- "Other phones" have a cost of \$100.
- Chargers have a cost of \$30.
- Item should be added to the table. The total should be calculated as the "bond" in the Cost section.
- If the "customer type" is "business" then no bond should be charged.

COST

- All inputs should be disabled from user input (amounts should be calculated using JavaScript).
- All amounts should be in \$ format (\$200.00).
- Bond: is the cost for a courtesy phone (and charger) if the customer is a "consumer" type.
- **Service Fee**: is \$85 if the customer's phone is *out of warranty*.
- Total: The total of cost excluding GST.
- **GST**: 15% of the total.
- Total (+GST): The total including GST.

FORM BUTTONS

- Reset: Should reset the form (note any default values should be recalculated).
- Submit:
 - o Should validate the form data and display any errors for the user to correct.
 - If all fields have been validated then a "Repair Booking Job Sheet" should be dynamically generated via JavaScript (This should open in a new window).
- FAQs:
 - Should open a new window of frequently asked questions. This information is to assist the employee with common customer questions. Example:
 - What is the bond for?
 - Why do I have to pay a service fee?
 - Do I need a charger with my courtesy phone?
 - Why isn't my phone under warranty?
 - ...
 - The information for this page should be read from a JSON/XML file (you could either create one by yourself or use the existing online one).

REPAIR BOOKING JOB SHEET

The "repair booking job sheet" should be styled in a way that would be suitable for printing (use colours suitable for printing in black and white). The job sheet should include all submitted form information and business contact information (business card, phone, email, and address etc.).

Additional requirements for the job sheet:

- The "job number" should be unique to each form (use cookies, local storage, IndexedDB to mimic this).
- The "invoice date" should also include in the time of invoice in 24-hour format.
- Under the "repair details": "repair date/time" should include the time in 12-hour format with an appropriate AM or PM suffix.
- Under "warranty" should include either a tick or cross symbol.

Advanced JS

You are to explore and implement advanced JavaScript techniques (at least 5). These should be relevant to the Phone Fix Repair theme and can be added to the first page, the extension page or on an additional page.

Include the following statement at the top of the "Advanced JS" (Extension) page:

Statement of authenticity

I confirm that:

- This is an original assessment and is entirely my own work.
- It contains no material previously published or written by another person or myself except where due acknowledgement is made in the text.
- No material which to a substantial extent, has been submitted for any other academic course, is included without acknowledgement.

Then describe any advanced JavaScript features you have implemented.

Some suggestions of advanced JS features:

- Implement "search" feature using JS on FQAs page;
- Improve UX: Use "address search & auto completion" API to auto complete the address fields;
- Improve UX: remember user preferences (background color, image, ...) by using Cookie, Local Storage API;
- Improve UX: Use drag-and-drop API for the "courtesy phone" selection;
- Improve UX: use modal form to show the "Repair Booking Sheet" before submitting it;
- Improve UX: Use "file upload" feature allows users to upload the image of the repair phones & display the image on the page for viewing as well;
- Use SVGMap or Imagemap to display all shops in different regions on interactive NZ map;
- Use Geolocation & Google Map API to show the current customer service and the distance from them to the nearest shop.
- Use AI (Artificial Intelligent) or Machine Learning (ML) with JS: Build a bot-chat (in case users need help): training the AI with the FAQs.
- Improve UX & notification: Use Server-Sent-Event (SSE) and "promise" object in JS for asynchronous operation to improve UX & "Notification" feature;
- Improve UX: Use WebGL or any JS libraries (P5.JS, Three.JS) to display & interact with 3D-model courtesy phones;
- Improve UX: use AR/VR feature to allow user to display & interact with 3D-model of courtesy phones;
- SPA: Use Ajax/json and any JS framework to make this phone-fix-repair website become a Single Page Application (SPA);
- PWA: Use Ajax/json and any JS framework to make the phone-fix-repair website become a Progressive Web App (PWA);
- Use Angular framework to create the "courtesy phone" & "cost" section;
- Use Node, Vue or React framework the "courtesy phone" & "cost" section;

DOCUMENTATION & FUCTIONALITY

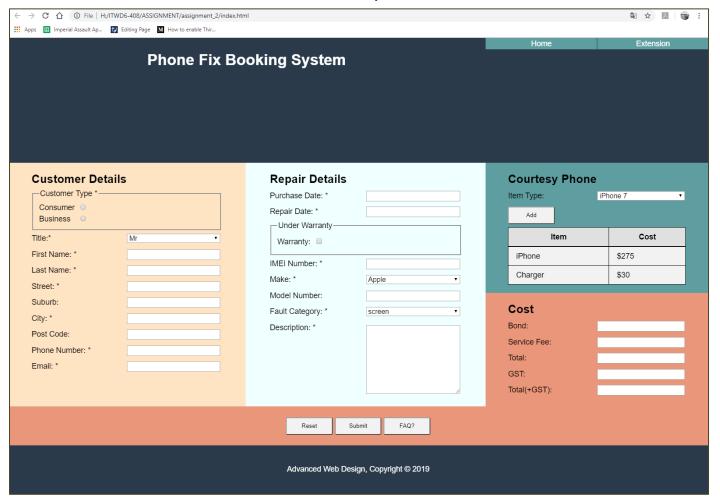
- Marks will be awarded for documentation (within the code, e.g. consistent variable naming), and for functionality, elegance and efficiency of code, and appropriate Web page design.
- You should divide the screen into sections and utilise **CSS grid** and **Flexbox techniques** so they resize for smaller devices as shown below.
- You must use JavaScript for all client side scripting. No HTML5 validation.
- Include a **review.doc file** where you explain any issues/problems you faced up:
 - o Issues you have not resolved.
 - o Issues you have overcome. How?
 - Things you would like to explain.
 - Explain what you could have done differently to improve your result or I could have done differently to assist in improving your result.
 - Reflect on things you learnt, think could be improved in the course and things you found helpful.

MARKING SCHEDULE

Validation	 Mandatory fields First & Last Name 	10
	Post CodePhone NumberEmail	
	Select Boxes	
	Dates	
	Warranty	
	IMEI Number	
Courtesy Phone	Add button inserts item into table if value is selected.	10
	Add button resets select box	
	Price correct for Item type	
	Price adjusted for Business customer	
	Items added update the "bond" field in the cost section	
Cost	Input boxes disabled	10
	Default values used	
	Correct format	
	Bond total calculated	
	Service fee calculated	
	Total calculated	
	GST calculated	
	Total (+GST) calculated	
Form Buttons	Reset: resets form and default values	10
	Submit: Validates the form and indicates the fields to correct. If	
	validated opens the Repair Booking Job Sheet	
	FAQs: Opens a new window with FAQs imported from an JSON/XML file	
Repair Booking	Styled as printable invoice/repair sheet document	10
Job Sheet	Includes all form fields with sensible formatting	
	Meets the additional job sheet requirements	
Advanced JS	JavaScript extensions are relevant to the Phone Fix Booking System	30
(at least 5)	theme	
	Include descriptions for each feature. Include a working example for each feature.	
	Include a working example for each feature;	
Documentation	Code consistency. Code comments. Clean Code	20
& Functionality	Mobile first responsive design utilizing CSS grid and flexbox	
	All validation uses JavaScript	
	Publish website on Github or any other hosting	
	 Review.doc file included with discussion of issues faced, improvements needed, how the course could be improved. 	
	needed, now the course could be improved.	465
Total		100

1. Home Page (index.html):

Desktop



Mobile

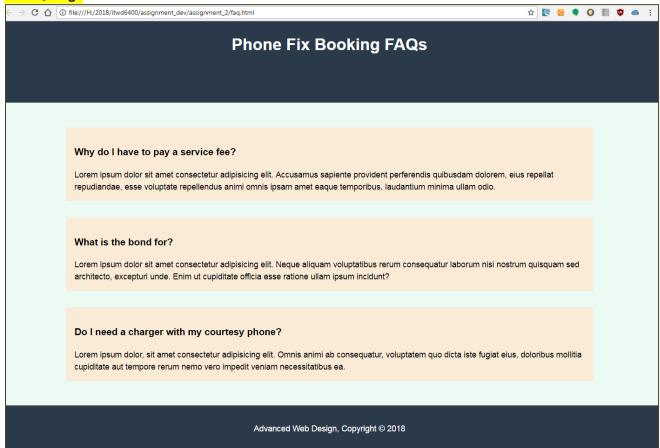
Phone Fix Booking System				
Home				
Customer Details Customer Type * Consumer ○ Business ○				
Title: Mr First Name: * Last Name: *				
Street: * Suburb:				
City: * Post Code: Phone Number: *				
Email: *				
Repair Details Purchase Date: *				
Repair Date: * Under Warranty				
Make: * Apple Model Number:				
Fault Category: * screen • Description: *				
Courtesy Phone Item Type: IPhone 7				
Item Cost IPhone \$275 Charger \$30				
Cost Bond: Service Fee:				
Total: GST:				
Total(+GST):				
Submit FAQ?				
Advanced Web Design, Copyright @ 2019				

Tablet (iPad)

Phone Fix Booking System				
	Home	Extension		
	Customer Details			
	Consumer O Business O			
	Title:*			
	Mr	•		
	First Name: *			
	Last Name: *			
	Street: *			
	Suburb:			
	City: *			
	Post Code:			
	Phone Number: *			
	Email: *			
	Repair Details			
	Purchase Date: *			
	Repair Date: *			
	Under Warranty			
	Warranty: IMEI Number: *			
	Make: *			
	Apple	*		
	Model Number:			
	Fault Category: *			
	screen	*		
	Description: *			
	Courtesy Phone			
	Item Type: iPhone 7	•		
	Add			
	Item	Cost		
	iPhone	\$275		
	Charger	\$30		
	Cost			
	Bond:			
	Service Fee:			
	Total:			
	GST:			
	Total(+GST):			
	Reset Submit			
FAQ?				
Advanced Web Design, Copyright © 2019				



3. FAQs Page



4. Repair Job Sheet

