Create and document a testing plan for a web solution. Produce technical documentation for users and technical staff.

SDV602 Milestone Two

Test Plan and Technical Documentation

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# Part 1 (Milestone 2)

## App Design and Documentation

### Application Purpose

*A brief description of the purpose of your application.*

This application will display graphs to compare different customer categories in relation to regional tax statistics. Data is based on the number of individuals or entities that are registered under each category. The application will be Written in Python.

Screens:

* Welcome: users can choose to log in or register.
* Login: log into the program.
* Register: register a new account.
* Home: title page with links to each DES.
* DES n: any number of DES screens

Each DES screen will have the same basic functionality and information:

* Generated graph of the selected data set
* Graph manipulation (pan, zoom)
* Summary of the information presented
* Live chat
* Upload data source

Dataset: <https://catalogue.data.govt.nz/dataset/regional-statistics-for-all-customers/resource/6c983bed-8346-4598-8513-9d69573f5318>

Current chart ideas based on the data set:

* DES 1: Venn diagram of the number of business, non-business and micro business individuals for all of NZ.
* DES 2: Graph of the number of registered customers in the North Island vs the South Island.
* DES 3: Graph of the number of registered customers in the largest cities across the NZ.

The motivation for building this application is from a scientific perspective. This application will enable easier analysis of the data by Inland Revenue or other tax related entities. This would give the government insight into how tax changes would affect different groups, so they would be better informed for making any future decisions.

### Storyboards

*A set of storyboards depicting the working of the WHOLE application, including for example Login and Chat systems. Each storyboard is to include a table that details ALL interactions, inputs and outputs.*

#### Overview map

A diagram of a company

Description automatically generated

#### Welcome

A close-up of a data explorer

Description automatically generated

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| Login | Button | Switches to the login page |
| Register | Button | Switches to the register page |
| Exit | Button | Closes the whole program and all windows |

#### Login

A login screen with text and buttons

Description automatically generated

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| Email | Input | Accepts any alphanumeric characters to be validated |
| Password | Input | Accepts any alphanumeric characters to be validated |
| Login | Button | Validates the inputs and switches to the home page if valid. |
| Switch to register | Button | Switches to the register page if the user mis-clicks |

#### Register

A screenshot of a login form

Description automatically generated

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| Display name | Input | Accepts any alphanumeric characters to be used as the display name in chats |
| Email | Input | Accepts any alphanumeric characters to be used as the login email |
| Password | Input | Accepts any alphanumeric characters to be used as the login password |
| Login | Button | Validates the inputs don’t already exist and switches to the home page if true. |
| Switch to login | Button | Switches to the login page if the user mis-clicks |

#### Home

A chart with text and arrows

Description automatically generated with medium confidence

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| DES 1 | Button | Opens DES 1 |
| DES 2 | Button | Opens DES 2 |
| DES 3 | Button | Opens DES 3 |
| Exit | Button | Closes the whole program and all windows |

#### DES 1

A screen shot of a computer

Description automatically generated

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| Set data source | Button | Opens a modal window to enter a new data set |
| Zoom + | Button | Zooms in the chart |
| Zoom - | Button | Zooms out the chart |
| Pan + | Button | Pans left on the chart |
| Pan - | Button | Pans right on the chart |
| Close | Button | Closes the DES window |

#### DES 2

A screenshot of a video call

Description automatically generated

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| Zoom + | Button | Zooms in the chart |
| Zoom - | Button | Zooms out the chart |
| Pan + | Button | Pans left on the chart |
| Pan - | Button | Pans right on the chart |
| Close | Button | Closes the DES window |

#### DES 3

A screenshot of a computer

Description automatically generated

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| Zoom + | Button | Zooms in the chart |
| Zoom - | Button | Zooms out the chart |
| Pan + | Button | Pans left on the chart |
| Pan - | Button | Pans right on the chart |
| Close | Button | Closes the DES window |

#### CHAT

A screenshot of a computer

Description automatically generated

|  |  |  |
| --- | --- | --- |
| Name | Type | Action |
| Message box | Input | Input a message to be sent in chat |
| Send | Button | Sends the inputted message if not null |
| Close | Button | Closes the chat window |

## Code Implementation

*Each DES:*

* *Accepts correct input and displays correct information*
* *Displays a place holder for the chart*
* *Provides navigation to other DESs, must include a top command interface to display them all*

The code implementation and test scripts can be viewed in the GitHub repository:

<https://github.com/Jayden-Htn/SDV602-Milestone-2>

It is important to note that minor design changes have been made since the storyboarding phase as better ideas are created and to accommodate for new functionality.

Some functionality has not been implemented yet, such as the chart display, chart features, or the chat window.