

ENGINEERING AND APPLIED SCIENCE

**CS3040 MOBILE DESIGN AND DEVELOPMENT**

COURSEWORK REPORT

**Memori: A Mobile Travel Journal Application**

A mobile application replacement for a travel journal

*March 2020*

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Table of Contents

[Introduction 1](#_Toc35366539)

[Design Motivation 1](#_Toc35366540)

[What motivated the design for Memori? 1](#_Toc35366541)

[What background research was conducted for the design? 1](#_Toc35366542)

[Application UI Design 1](#_Toc35366543)

[How does the user navigate through the app? 1](#_Toc35366544)

[Why the UI was designed this way? 3](#_Toc35366545)

[Implementation 3](#_Toc35366546)

[What was the overall structure/architecture of Memori? 3](#_Toc35366547)

[Which aspects were difficult to implement and how were they achieved? 3](#_Toc35366548)

[Evaluation 3](#_Toc35366549)

[How would Memori be evaluated to determine its usability? 4](#_Toc35366550)

[What are the strengths/weaknesses of Memori? 4](#_Toc35366551)

[What elements could be improved? 4](#_Toc35366552)

[Bibliography 4](#_Toc35366553)

[Figure List 4](#_Toc35366554)

# Introduction

This report is based around the development and implementation of a mobile application called Memori. Memori has been designed to improve how users track the holidays they travel on and its events and potentially, act as an electronic replacement for travel journals. The report will first discuss where the inspiration for the UI originated from and then explain how this inspiration was put into place. It will then showcase the functionality behind the UI and how several aspects have been implemented. The final section of the report will discuss how a potential evaluation would be carried out, in addition to a self evaluation about Memori itself.

# Design Motivation

## What motivated the design for Memori?

The overall design for Memori was inspired by...

## What background research was conducted for the design?

The background research for the design was first conducted around current mobile applications which can be used as a travel journal. These apps were found on the App Store and they each possessed their own layout and approach on how the user would interact with such an application.

These applications helped to understand the generic layout and structure used within travel journal applications. From this I was able to draft a basic semantic network of what is required from travel journal apps and another network for what is required from the coursework specification. The combination of these 2 networks allowed me to match up significant components which could be used within the next phase of conceptual design.

In order to further enhance my knowledge around a potential design, I used a card sort with family and friends to understand more about how users would expect to categorise and use the system. I used areas of functionality which would be found within a potential app and compared this to the previously created semantic networks. This provided enough insight on what layout Memori should follow.

# Application UI Design

In this section, I aim to discuss why my design for Memori has been created in such a way and provide sufficient evidence as to why I believe that my design is a good example of interaction design.

## How does the user navigate through the app?

NEED TO CHECK IF THERE IS A SPLASH PAGE

The user will arrive on the first page of Memori which is the ‘Holidays’ page. From this page, the user will be able to view all of the holidays they have created, in addition to pre-defined holidays which provide a chance for the user to get familiar with the system [Figure 1]. There is functionality for creating, editing, viewing and deleting a holiday all within this page. In order to create a new holiday, the user can select the ‘Create a Holiday’ button, which will navigate the user to a page where they can enter the necessary information [Figure 2]. Once created, the user will be able to view this holiday by selecting it within the holiday list, which will take them to the ‘View Holiday’ page [Figure 3]. To edit a particular holiday, the user must select the toolbar from the ‘Holidays’ page and then select ‘Edit’, which will navigate them to a similar page to ‘Create Holiday’ where they will be able to edit and save any changes to the holiday [Figure 4]. The final point of interaction on this page is to allow the user to delete a potential holiday, which can be found alongside the ‘Edit’ function within the toolbar.

PLACE IMAGES HERE

The next significant page within the system is the ‘Visited Places’ page. This page acts very similar to the ‘Holidays’ page in terms of user-interaction; hence why the UI elements (such as toolbars and buttons) can be found in the same location [Figure 5]. The ‘Add a Visited Place’ button allows the user to add one where they will be able to select which holiday they are travelling on and also a potential location for the visited place [Figure 6]. All visited places created will be available to view from the ‘Visited Places’ page within the list; as shown in [Figure 7]. Functionality to edit a particular visited place will also be available by navigating to the toolbar, selecting ’Edit’ and then a particular visited place; which will take the user to the ‘Edit Visited Place’ page. This can be seen in [Figure 8].

PLACE IMAGES HERE

In addition to the Holidays and Visited Places pages, the user will also be able to navigate to the Maps page. From this page, the user will be able to view the location of any Visited Places they create and also any images they take [Figure 9]. The map will show 2 different sets of markers; blue markers represent a visited place and pink markers represent an image. By clicking on these markers, the user will be taken to a page where they will be able to view more information. For example, by clicking on a blue marker, the user will be taken to a page similar to [Figure 10]. And by clicking on a pink marker, the use will be taken to a similar page to [Figure 11].

PLACE IMAGES HERE

If the user wants to be more specific about which Visited Place markers they wish to see on the map, they can select the ‘Filter’ button. This will provide the user with a pop-up menu with different options on how to filter the Visited Place markers [Figure 12]. If date is chosen, the user will be able to select a date from the date picker and filter the markers, as shown in [Figure 13]. If there are Visited Places within the date range, then they will be shown. Otherwise a message will pop-up informing the user [Figure 14], and all Visited Place will still be shown on the map. This system is used for both the Filter by Holidays option [Figure 15] and Filter by Companion option [Figure 16].

PLACE IMAGES HERE

The last area of user interaction within the Map page is the Get Places of Interest button. This button allows the user to learn more about their current area and also find some locations places of attraction. By clicking on this button, a pop-up menu will be presented which shows all the categories of nearby places of interest [Figure 17]. By selecting a category, the user will be taken to another page where they will see another map with 2 sets of markers [Figure 18]. The red marker will represent the user’s current location, whereas the blue markers will represent nearby places. By clicking on a blue marker, the user will be able to use Google Maps by selecting the button in the bottom right-hand corner, to navigate to the place of interest, [Figure 19].

PLACE IMAGES HERE

The final page within the system is the Gallery page. From here the user will be able to view all of the images that are taken with Memori and assigned to a Holiday/Visited Place [Figure 20]. The user will be able to scroll through the images and be able to select any image to learn more information about it [Figure 21]. There is also functionality to search the images according to the user’s choice, this can be achieved by selecting the Search button. This function is used to help filter the images in order make finding a particular image a lot easier. Upon selecting Search, a pop-up menu will be presented, showing the user the different ways that the images can be searched [Figure 22]. Each method of searching will present a new pop-up dialog which will use the user’s input to search through the images and return the matched items [Figure 23]. However if there is no matched items, then no images will be presented to the user, the user must then select the Reset option within the Search menu.

PLACE IMAGES HERE

The toolbar within the Gallery page will allow the user to sort the images to further assist them finding a particular image [Figure 24]. The options for the different sort categories will provide another menu where they will be able to decide the order for the sort, for example sorting by name will present the user with 2 options; sort from A – Z or sort from Z-A [Figure 25]. This is a similar case with each category.

PLACE IMAGES HERE

As a hidden Easter-egg within Memori, long pressing the title bar within 1 of the 4 main pages will perform another action. Upon click, the user will be presented with a humorous pop-up message [Figure 26]. And if the title bar is held down long enough, it will perform an action depending on which page of the application is currently active. For Holidays and Visited Place, it will present the user with a form to create a new Holiday/Visited Place respectively. For Map and Gallery, it will do something?

## Why the UI was designed this way?

SOME TEXT

# Implementation

## What was the overall structure/architecture of Memori?

SOME TEXT

## Which aspects were difficult to implement and how were they achieved?

SOME TEXT

# Evaluation

In this section, I will discuss how Memori can be evaluated and compared to \_\_\_\_\_\_\_, in order to assess its functionality and efficiency. I will also converse about where Memori excels and where it doesn’t, in addition to elements that would be improved if another version was to be released.

## How would Memori be evaluated to determine its usability?

In order to evaluate Memori and its performance within the real-world, it will be compared to \_\_\_\_\_\_\_ to see if it is more efficient in completing several tasks.

## What are the strengths/weaknesses of Memori?

I believe that Memori excels in various aspects due to the simplicity of its functionality. The simple layout of each of the pages ensures that user’s are well aware of what can be performed within each page.

## What elements could be improved?

SOME TEXT

# Bibliography

REFERENCES HAVE BEEN HIGHLIGHTED IN GREEN

Grass.osgeo.org. 2020. *GRASS GIS - General Overview*. [Online] Available at: <https://grass.osgeo.org/documentation/general-overview/> [Accessed 9 March 2020].

## Figure List

1. Home Fragment

2. Create Holiday

3. View Holiday

4. Edit Holiday

5. VPlace Fragment

6. Create VPlace

7. View VPlace

8. Edit VPlace

9. Map Fragment

10. View VPlace (From Map)

11. View Image (From Map)

12. Filter Options

13. Date Filter Screen

14. Filter Error Screen

15. Holiday Filter Screen

16. Companion Filter Screen

17. POI Options

18. Filtered Map Screen (Any Category, but must be able to see both markers)

NEED TO REMOVE DISPLAY TOAST FROM SELECTING A FILTER

19. Selected POI Marker

20. Gallery Fragment

21. View Image (From Gallery)

22. Search Options

23. Date Search Screen

24. Sort Options Menu

25. Sort by Name Pop-Up

26. First Pop-Up Message