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| --- | --- | --- | --- |
| **Team Number** | Team 3 | **Section** | Sec 61 |
| **Team Members** | 1.    Eilbera Mansour  2.    Niki Liao  3.    Sarthak Chauhan  4.    Chi Phan | | |
| **Software Name** | TimeCapsule | | |

# 1 Introduction

## 1.1         Objective

The objective of this functional specification is to outline the key features and requirements for an open-source, desktop application personal journal application. The goal is to provide users a secure platform with a login for creating, editing, searching, and storing their personal journal entries indefinitely. All users who have a basic knowledge of computers should be able to use this application.

## 1.2         References

CS151-Term Project-00-Problem Statement-V1.pdf

## 1.3         Acronyms, and Abbreviations

N/A

# 2    Software Overview

## 2.1         Problem Statement

Historically, people have maintained personal journals for record-keeping purposes. Traditional paper journals, however, are susceptible to damage from factors like light and air. Currently, there is a lack of open-source, free personal journal desktop applications available. The existing free web-based solutions are often filled with advertisements, which can compromise both user privacy and ease of use.

## 2.2         Scope

The scope of this document covers the functional requirements of a desktop-based journal application. It will detail the user interface, feature set, security measures, and the overall user experience of the application. This includes user authentication, password setting, resetting, creating new journal entries, saving, editing old entries, searching old entries, and deleting old entries. The specification will not include developing a mobile version of the application, building of a charging infrastructure, or integrating with current web-based applications. All users interested in journaling or currently using traditional paper to journal can transition over to this application.

## 2.3         Functional Requirements

1. The application will require a password to login

2. The application forces first time users to change their default password

3. The application allows the user to reset their password if they forgot their password

4. The application allows the user to logout which will redirect them to the home page (aka password entry page)

5.  The application allows the user to create new journal entry

6. The application allows the user to save journal entry

7. The application allows the user to cancel out of a journal entry and return to home page

8. The application allows the user to search for journal entry based on journal entry context and title

9. The application allows the user to edit a old journal entry after searching for it

10. The application allows the user to delete an old journal entry after searching for it

# 3    Use Cases

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name** | | T3UC-01 Reset password (forgot password) by security question and answer | |
| Goal | | | |
| As a user, I want to be able to reset my password by answering a security question, so that I can regain access to my account even if I forget my password. | | | |
| Participating Actors | | | |
| User, system | | | |
| Glossary | | | |
| N/A | | | |
| Primary Flow of Events | | | |
| Trigger | | | |
| After being launched, the application displays the log-in page to input their password to log in. At the bottom of the log in page, there is a link that displays “Forgot password” and when clicked, it directs user to a new screen to reset the password. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | On the log-in page, user clicks “Forgot password” link. | | System redirects the user to a “Reset Password” screen. The screen contains a dropdown menu for the security question, fields for the security answer, new password, re-typed password, and a “Back” button. |
| 2 | User selects a security question from the drop-down menu, enters security answer, new password, and retypes the new password. | |  |
| 3 | User clicks “Reset password” button. | | The system shows a pop-up saying “Your new password has been saved. Do you want to go back to the login page?” with two buttons: “Ok” and “Cancel”. |
| 4 | User clicks “Ok” button. | | System redirects the user back to the log-in page. |
| Alternative Flow of Events | | | |
| **Alternative Trigger** | | | |
| User selects wrong security question or inputs wrong security answer. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User selects the wrong security question from the drop-down menu. | | System displays an error message “Security question did not match!”. |
| 2 | User enters the wrong security answer. | | System displays an error message “Security answer did not match!”. |
| Alternative Flow of Events | | | |
| **Alternative Trigger** | | | |
| When the user re-enters their new password in the 'Confirm Password' field, and it doesn't match the original password they just entered. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User enters a different password in the “Confirm Password” field. | | System displays an error message “Passwords do not match”. |
| Alternative Flow of Events | | | |
| **Alternative Trigger** | | | |
| User wants to cancel and back to Login page | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User clicks “Back” button | | System redirects user to Login page. |

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| --- | --- | --- |
| **Use Case Name** | T3UC-02 first time log in with default password and change old password | |
| Goal | | |
| As a user, I want to login with my default password which is “p” and be redirected to change the default password. Then I can change my old password to a new password and update the security question and answer. | | |
| Participating Actors | | |
| User, system | | |
| Glossary | | |
| N/A | | |
| Primary Flow of Events | | |
| Trigger | | |
| When the user inputs the correct default password, which is “p”, and clicks “Login” on the login page, a new screen pops up asking the user to change their default password.  After setting up a new password, user can click “Change Password” button at the Login page to change password. | | |
| **Steps** | **Action** | **System Response** |
| 1 | User logs in first time with default password “p” or click “Change Password” on the Login page. | System redirects the user to a “Change Password” screen. |
| 2 | User enters old password, new password, confirm new password, security question, and security answer. |  |
| 3 | User clicks "Change Password" button. | The system shows a pop-up saying “New password, security question and answer have been saved! Do you want to go back to the login page?” with two buttons: “Ok”' and “Cancel”. |
| 4 | User clicks “Ok” button. | System redirects the user back to the log-in page. |
| Alternative Flow of Events | | |
| **Alternative Trigger** | | |
| User enters the wrong default password. | | |
| **Steps** | **Action** | **System Response** |
| 1 | User enters in the wrong password in the “old password” section. | System responds with “Old password did not match!”. |
| Alternative Flow of Events | | |
| **Alternative Trigger** | | |
| User re-enters their new password in the 'Confirm Password' field, and it doesn't match the original password they just entered. | | |
| **Steps** | **Action** | **System Response** |
| 1 | User enters a different password in the “Confirm Password” field. | System displays an error message “Confirming new password didn't match!”. |
| Alternative Flow of Events | | |
| **Alternative Trigger** | | |
| User does not select a security question | | |
| **Steps** | **Action** | **System Response** |
| 1 | User does not select a security question from the dropdown menu. | System displays an error message “Please select a security question!”. |
| Alternative Flow of Events | | |
| **Alternative Trigger** | | |
| User does not enter anything in for security answer | | |
| **Steps** | **Action** | **System Response** |
| 1 | User leaves the security answer box empty. | System displays an error message “Please answer the security question!”. |
| Alternative Flow of Events | | |
| **Alternative Trigger** | | |
| User wants to cancel and back to Login page | | |
| **Steps** | **Action** | **System Response** |
| 1 | User clicks “Back” button | System redirects user to Login page. |

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| --- | --- | --- | --- | --- |
| **Use Case Name** | | | T3UC-03 Create a new journal entry | |
| Goal | | | | |
| As a user, I want to create a new journal entry with context and optional title. | | | | |
| Participating Actors | | | | |
| User, system | | | | |
| Glossary | | | | |
| Neglected: Failed to fill out, failed to select a date | | | | |
| Primary Flow of Events | | | | |
| Trigger | | | | |
| After inputting the correct password and clicking “Login” on the login page, a new screen pops up with two buttons, “Create a new Journal Entry" and “Search/Edit old Journal Entries”. The user clicks “Create a new Journal Entry” to proceed. | | | | |
| **Steps** | **Action** | | | **System Response** |
| 1 | User clicks on “Create a new Journal Entry” from the Main Page. | | | The system redirects the user to the “Creating a New Journal Entry” screen displaying the required fields, including “Title (Optional)”, “Select Date-Time” and “Context” to fill out so that the new journal entry is created. The date and time are auto populated for the user. |
| 2 | User enters title (optional) and context. | | |  |
| 3 | User clicks on the Calendar button to change the date from the auto-populated date (if needed). | | | System pops up a calendar table to select a date |
| 4 | User enters a time if they want to select a different time from the auto-populated one. | | |  |
| 5 | User clicks the save button. | | | System pops up a confirmation text message “New Journal Entry has been Created! – Do you want to go back to Main page?” and a “OK” and “Cancel” button. |
| 6 | User clicks the “OK” button. | | | System redirects the user to the main screen. |
| Alternative Flow of Events | | | | |
| **Alternative Trigger** | | | | |
| User leaves the Context field or the Date-Time field empty and clicks save. | | | | |
| **Steps** | **Action** | | | **System Response** |
| 1 | User neglects one of the fields stated above in the glossary. | | |  |
| 2 | User clicks on the save button. | | | System gives a warning to the user informing them that they need to fill out both context and date-time. |
| 3 | User successfully fills out the previously neglected fields. | | | System pops up a confirmation text message “A new Journal Entry has been Created!” and “OK” button to back to Main page. |
| Alternative Flow of Events | | | | |
| **Alternative Trigger** | | | | |
| User wants to cancel | | | | |
| **Steps** | | **Action** | | **System Response** |
| 1 | | User clicks “Cancel” button | | System pops up a confirmation text message “Are you sure you want to cancel? - Any unsaved changes will be lost.” |
| 2 | | User clicks “OK” button | | System redirects user to Main page. |

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| --- | --- | --- | --- |
| **Use Case Name** | | T3UC-04 Searching for an old journal entry | |
| Goal | | | |
| As a user, I want to search for the old journal entries based on entry context and title. | | | |
| Participating Actors | | | |
| User, system | | | |
| Glossary | | | |
| N/A | | | |
| Primary Flow of Events | | | |
| Trigger | | | |
| The user inputs the text they are searching for into the “Context”, “Tittle”, or both fields, and then clicks the “Search” button. This action generates a list of old journal entries that match the provided context or title, displayed in a table format. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | On the Main page, user clicks on “Search/Edit old Journal Entries” button. | | System redirects user to a screen where 2 search boxes for entry context and title. |
| 2 | User fills out either the 'context', 'title', or both fields. | | No immediate system response until the search is initiated. |
| 3 | User clicks “Search” button. | | System executes a search in the database, displays all the old journal entries that match the inputs from the user, ordered by relevance based on the number of matching keywords in the context and title. |
| Alternate Flow of Events | | | |
| **Alternate Trigger** | | | |
| System cannot find any journal entry that matches the inputs of context or title from user. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User enters 'context', 'title', or both and clicks “Search” button. | | System fails to find any journal entry that matches the inputs and displays a message: “No results found!”. |
| Alternative Flow of Events | | | |
| **Alternative Trigger** | | | |
| User wants to cancel | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User clicks “Cancel” button | | System pops up a confirmation text message “Are you sure you want to cancel?” |
| 2 | User clicks “OK” button | | System redirects user to Main page. |

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| --- | --- | --- | --- |
| **Use Case Name** | | T3UC-05 Editing an old journal entry | |
| Goal | | | |
| Making changes to an old journal entry | | | |
| Participating Actors | | | |
| User, System | | | |
| Glossary | | | |
| N/A | | | |
| Primary Flow of Events | | | |
| Trigger | | | |
| The user inputs the text they are searching for into the 'context', 'title', or both fields, and then clicks the 'search' button. This action generates a list of old journal entries that match the provided context or title, displayed in a table format. To edit the details of a specific entry, the user can click "Select” next to the desired journal entry. Upon doing so, they are redirected to another screen where they can modify the entry's details. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User clicks on the “Select” button of the entry that needs to be edited. | | System redirects the user to a new screen where they can see the previous entry data. |
| 2 | User selects to edit the title or content by clicking on the field. | | System allows the user to make the changes. |
| 3 | User clicks on the 'update' button. | | System displays a pop-up message saying "Journal entry has been updated. Do you want to go back to the main page?" with two buttons: "Ok" or "Cancel". |
| 4 | User clicks on "Ok". | | System redirects to the main page. |
| Alternative Flow of Events | | | |
| **Alternative Trigger** | | | |
| User cancels the editing of the selected old journal entry. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User clicks on "Cancel". | | System prompts confirmation from the user saying "Are you sure you want to cancel? Any unsaved changes will be lost." with two buttons: "Ok" and "Cancel" |
| 2 | User clicks on "Ok". | | System takes the user back to the “Search/Edit old Journal Entries” page. |

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| **Use Case Name** | | T3UC-06 Deleting an old journal entry | |
| Goal | | | |
| Deleting an old journal entry | | | |
| Participating Actors | | | |
| User, System | | | |
| Glossary | | | |
| N/A | | | |
| Primary Flow of Events | | | |
| Trigger | | | |
| The user is presented with a list of old journal entries, either through a direct listing or as a result of a search operation. | | | |
| **Steps** | **Action** | | **System Response** |
| 1 | User clicks on the “Select” button of the entry that needs to be deleted. | | The system redirects the user to a new screen where they can see the previous entry data. |
| 2 | User clicks on the “Delete” button. | | The system deletes the journal entry and shows a pop-up screen that says “Journal entry has been deleted! Back to the main page?” with one button “Ok.” |
| 3 | User selects “Ok” on the pop-up. | | System redirects the user to the main page. |
| Alternative Flow of Events | | | |
| **Alternative Trigger** | | | |
|  | | | |
| **Steps** | **Action** | | **System Response** |
|  |  | |  |

# 4    Mockups: “as is in the technical-spec document”