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Test Plan, Test Design Specifications and Test Cases

Version 1

CENG 408

Innovative System Design and Development II

Daily: An AI Powered Journaling Application

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1. INTRODUCTION

1.1 Version Control

Version No	Description of Changes	Date
1.0	First Version	May 22, 2024

1.2 Overview

This document outlines the testing process for Daily, an AI-powered journaling application. The purpose of testing is to ensure that selected features of the application function as intended and meet the requirements specified in the Software Requirements Specification (SRS) document.

1.3 Scope

This document describes the test plan of the use cases, test design specifications, and test cases corresponding to the test plan.

1.4 Terminology

Acronym	Definition
LG	Login
RG	Register
VH	View Homepage
VA	View Album
VS	View Statistics
WD	Write Dailies
ED	Explore Dailies

2. FEATURES TO BE TESTED

This section lists and gives a brief description of all the major features to be tested. For each major feature there will be a Test Design Specification added at the end of this document.

2.1 Login (LG)

The application serves a login page for existing users to log in to their accounts. The login system uses the backend server to validate users and is served to the clients through our React Native application. Both backend and frontend systems may be tested.

2.2 Register (RG)

The application serves a register page for users to register to the application. The registration system uses the backend server to validate registration and is served to the clients through our React Native application. Both backend and frontend systems may be tested.

2.3 View Homepage (VH)

The homepage navigates the user to other components of the GUI. The homepage is the same for all users and the view is always consistent. This use case doesn't need to be tested.

2.4 Viewing Album (VA)

User albums connect to the backend server to retrieve user dailies. These dailies are presented in a grid view format with images identifying each daily entry. This component may be tested for correct retrieval of user data.

2.5 Viewing Statistics (VS)

The statistics page displays user statistics such as how many dailies the user has written, last month's activity charts, writing streaks, a daily calendar view, and wows. Analysis such as streak information and mood calendar are retrieved from the backend.

2.6 Writing Dailies (WD)

The write a daily page first displays a textbox that the user can write on. There is a slider which the user can use to specify whether the daily should be saved privately or shared anonymously with other users. Then the daily can be saved via a button, and the application serves an appropriate image to the user and saves the daily to the user album.

2.7 Explore Dailies (ED)

Some dailies are shared anonymously with other users. This screen first displays an image, then the daily can be viewed after clicking. The user can also slide down to see another daily. Dailies can be flagged as inappropriate content, and users can wow the daily (like).

3. FEATURES NOT TO BE TESTED

3.1 Email Verification

The email verification system cannot be tested due to the lack of technical capabilities of end-to-end or unit testing platforms.

4. ITEM PASS/FAIL CRITERIA

4.1 Exit Criteria

The testing of the product is considered successful under the following conditions:

- 100% of the test cases are executed
- 95% of the test cases passed
- All High and Medium Priority test cases passed

5. TEST DESIGN SPECIFICATIONS

5.1 Login (LG)

5.1.1 Subfeatures to be tested

5.1.1.1 Login (LG)

Two textboxes, one of which takes email address input and the other one password must be displayed to the user. User input must be sent to the server to be validated via the Login button.

5.1.2 Test Cases

Here list all the related test cases for this feature

TC ID	Priority	Scenario Description
LG.01	H	Send a valid user id and valid password to the server for the login procedure
LG.02	H	Send an invalid user id and invalid password to the server for the login procedure
LG.03	H	Send an invalid user id and valid password to the server for the login procedure
LG.04	H	Send a valid user id and invalid password to the server for the login procedure

5.2 Register (RG)

5.2.1 Subfeatures to be tested

5.2.1.1 Register (RG)

Two textboxes, one of them takes email address input and the other one password must be displayed to the user. User input must be sent to the server to be validated via the Login button.

5.2.2 Test Cases

Here list all the related test cases for this feature

TC ID	Priority	Scenario Description
RG.01	H	Try to register with valid input
RG.02	H	Try to register with invalid input (invalid email format or address)

5.3 View Homepage (VH)

5.3.1 Subfeatures to be tested

5.3.1.1 View Homepage (VH)

User navigates to different screens of the application. Components with navigation properties are displayed on the screen.

5.3.2 Test Cases

Here list all the related test cases for this feature

TC ID	Priority	Scenario Description
VH.01	H	All necessary components are displayed on the screen.
VH.02	H	Try to navigate Statistics page
VH.03	H	Try to navigate Profile page
VH.04	H	Try to navigate Explore page
VH.05	H	Try to navigate Write a Daily page
VH.06	H	Try to navigate Your Daily page

5.4 View Album (VA)

5.4.1 Subfeatures to be tested

5.4.1.1 View All Daily Entries (VA.DE)

Dailies are rendered to the page in a grid view with their corresponding images.

5.4.1.2 Display Selected Daily (VA.SD)

Selected daily is displayed on the screen.

5.4.2 Test Cases

Here list all the related test cases for this feature

TC ID	Priority	Scenario Description
VA.DE.01	H	Dailies are rendered to the page in a grid view with their corresponding images.
VA.SD.01	M	Selected daily is displayed on the screen.

5.5 View Statistics (VS)

5.5.1 Subfeatures to be tested

5.5.1.1 View All Statistic Components (VS.SC)

User statistics consisting of wows, written dailies, streak, views and topics are displayed on the screen.

5.5.1.2 Go to corresponding daily entry from Calendar component (VS.CA)

Marked days in the calendar should be clickable and must navigate to the corresponding daily.

5.5.2 Test Cases

Here list all the related test cases for this feature

TC ID	Priority	Scenario Description
VS.SC.01	M	User statistics consisting of wovs, written dailies, streak, views and topics must be correctly rendered with the data.
VS.CA.01	M	Try to click marked days on the calendar and verify the daily entry.

5.6 Writing Dailies (WD)

5.6.1 Subfeatures to be tested

5.6.1.1 Write a Daily (WD)

A textbox that accepts text input is displayed on the screen. A slider is provided that controls private or public saving of the daily. Users can save the daily by clicking at the save button.

5.6.2 Test Cases

Here list all the related test cases for this feature

TC ID	Priority	Scenario Description
WD.01	H	Try to write a sample text to the textbox and click to the button when the slider is off.
WD.02	H	Try to write a sample text to the textbox and click to the button when the slider is on.

5.7 Explore Dailies (ED)

5.7.1 Subfeatures to be tested

5.7.1.1 View Anonymous Dailies (ED.VD)

Explore screen provides a slider mechanic which displays a different shared daily each time user slides down.

5.7.1.2 Report Daily (ED.RD)

Users can report the selected daily for inappropriate content.

5.7.1.3 Wow Daily (ED.WD)

Users can wow the daily, indicating a like.

5.7.2 Test Cases

Here list all the related test cases for this feature

TC ID	Priority	Scenario Description
ED.AD.01	H	Try to display different shared dailies each time user slides down.
ED.RD.01	M	Try to tap the report button for selected daily to report daily with a reason text.
ED.WD.01	M	Try to tap the wow button for wowing the daily, indicating a like.

6. Detailed Test Cases

Login (LG)

TC_ID: LG.01

Purpose	Send a valid user id and valid password to the server for the login procedure.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	Add User test cases should pass
Setup	A valid user must exist in the database.
Procedure	[A01] Go to the login page. [A02] Enter a valid user id. [A03] Enter the valid password for this user. [A04] Click on the “Login” button. [V01] Observe that the login is successful and the user dashboard appears.
Cleanup	Logout

TC_ID: LG.02

Purpose	Send an invalid user id and invalid password to the server for the login procedure.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	None
Procedure	[A01] Go to the login page. [A02] Enter an invalid user id. [A03] Enter an invalid password. [A04] Click on the “Login” button. [V01] Observe that the login fails and an error message appears.
Cleanup	None

TC_ID: LG.03

Purpose	Send an invalid user id and valid password to the server for the login procedure.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	None
Procedure	[A01] Go to the login page. [A02] Enter an invalid user id. [A03] Enter a valid password. [A04] Click on the “Login” button. [V01] Observe that the login fails and an error message appears.
Cleanup	None

TC_ID: LG.04

Purpose	Send a valid user id and invalid password to the server for the login procedure.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	A valid user must exist in the database.
Procedure	[A01] Go to the login page. [A02] Enter a valid user id. [A03] Enter an invalid password. [A04] Click on the “Login” button. [V01] Observe that the login fails and an error message appears.
Cleanup	None

Register (RG)

TC_ID: RG.01

Purpose	Try to register with valid input.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	None
Procedure	[A01] Go to the registration page. [A02] Enter a valid email address. [A03] Enter a valid password. [A04] Click on the “Register” button. [V01] Observe that the registration is successful and the user is redirected to the login page.
Cleanup	None

TC_ID: RG.02

Purpose	Try to register with invalid input (invalid e-mail format or address).
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	None
Procedure	[A01] Go to the registration page. [A02] Enter an invalid email address. [A03] Enter a valid password. [A04] Click on the “Register” button. [V01] Observe that the registration fails and an error message appears.
Cleanup	None

View Homepage (VH)

TC_ID: VH.01

Purpose	All necessary components are displayed on the screen.
Requirements	-
Priority	High
Estimated Time Needed	3 Minutes
Dependency	None
Setup	None
Procedure	[A01] Log in to the application. [A02] Navigate to the homepage. [V01] Verify that all necessary components (e.g., navigation bar, buttons, etc.) are displayed correctly.
Cleanup	None

TC_ID: VH.02

Purpose	Try to navigate to the Statistics page.
Requirements	-
Priority	High
Estimated Time Needed	3 Minutes
Dependency	None
Setup	None
Procedure	[A01] Log in to the application. [A02] Navigate to the homepage. [A03] Click on the Statistics page link/button. [V01] Verify that the Statistics page is displayed correctly.
Cleanup	None

View Album (VA)

TC_ID: VA.DE.01

Purpose	Dailies are rendered to the page in a grid view with their corresponding images.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	Ensure there are dailies in the database.
Procedure	[A01] Log in to the application. [A02] Navigate to the album page. [V01] Verify that dailies are displayed in a grid view with their corresponding images.
Cleanup	None

TC_ID: VA.SD.01

Purpose	Selected daily is displayed on the screen.
Requirements	-
Priority	Medium
Estimated Time Needed	3 Minutes
Dependency	VA.DE.01
Setup	Ensure there are dailies in the database.
Procedure	[A01] Log in to the application. [A02] Navigate to the album page. [A03] Click on a daily entry. [V01] Verify that the selected daily is displayed correctly on the screen.
Cleanup	None

View Statistics (VS)

TC_ID: VS.SC.01

Purpose	User statistics must be correctly rendered with the data.
Requirements	-
Priority	Medium
Estimated Time Needed	5 Minutes
Dependency	None
Setup	Ensure there are statistics data in the database.
Procedure	[A01] Log in to the application. [A02] Navigate to the statistics page. [V01] Verify that user statistics (e.g., wows, written dailies, streak views, topics) are correctly rendered with the data.
Cleanup	None

TC_ID: VS.CA.01

Purpose	Try to click marked days on the calendar and verify the daily entry.
Requirements	-
Priority	Medium
Estimated Time Needed	5 Minutes
Dependency	None
Setup	Ensure there are marked days in the calendar.
Procedure	[A01] Log in to the application. [A02] Navigate to the statistics page. [A03] Click on a marked day in the calendar. [V01] Verify that the corresponding daily entry is displayed correctly.
Cleanup	None

Writing Dailies (WD)

TC_ID: WD.01

Purpose	Try to write a sample text to the textbox and click the button when the slider is off.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	None
Procedure	[A01] Log in to the application. [A02] Navigate to the write daily page. [A03] Enter a sample text in the textbox. [A04] Set the slider to private. [A05] Click the “Save” button. [V01] Verify that the daily is saved and displayed in the user album as private.
Cleanup	None

TC_ID: WD.02

Purpose	Try to write a sample text to the textbox and click the button when the slider is on.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	None
Setup	None
Procedure	[A01] Log in to the application. [A02] Navigate to the write daily page. [A03] Enter a sample text in the textbox. [A04] Set the slider to public. [A05] Click the “Save” button. [V01] Verify that the daily is saved and displayed in the user album as public.
Cleanup	None

Explore Dailies (ED)

TC_ID: ED.AD.01

Purpose	Try to display different shared dailies each time the user slides down.
Requirements	-
Priority	High
Estimated Time Needed	5 Minutes
Dependency	User must be logged in; Shared dailies must exist in the database
Setup	Ensure there are shared dailies in the database.
Procedure	[A01] Log in to the application. [A02] Navigate to the explore dailies page. [A03] Slide down to view different shared dailies. [V01] Verify that different shared dailies are displayed correctly each time the user slides down.
Cleanup	None

TC_ID: ED.RD.01

Purpose	Try to tap the report button for the selected daily to report daily with a reason text.
Requirements	-
Priority	Medium
Estimated Time Needed	5 Minutes
Dependency	User must be logged in; Shared dailies must exist in the database
Setup	Ensure there are shared dailies in the database.
Procedure	[A01] Log in to the application. [A02] Navigate to the explore dailies page. [A03] Select a daily entry. [A04] Tap the report button. [A05] Enter a reason text for the report. [A06] Submit the report. [V01] Verify that the report is successfully submitted.
Cleanup	None

TC_ID: ED.WD.01

Purpose	Try to tap the wow button for wowing the daily indicating a like.
Requirements	-
Priority	Medium
Estimated Time Needed	3 Minutes
Dependency	User must be logged in; Shared dailies must exist in the database
Setup	Ensure there are shared dailies in the database.
Procedure	[A01] Log in to the application. [A02] Navigate to the explore dailies page. [A03] Select a daily entry. [A04] Tap the wow button. [V01] Verify that the wow count for the daily entry increases.
Cleanup	None

7. REFERENCES

[1] Group15_DAILY SRS.pdf, January 6, 2024