
The Powdered Waffles

Software Design Document (SDD)

Version 3.0

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Document Preparation

Name	Role	Approval (Signature)	Approval Date
Kathryn Compton	Project Documenter, Project Designer, Software Tester	Kathryn Compton	03/02/23
Jacob Jones	Lead Software Developer, Lead Project Designer	Jacob Jones	03/02/23
Elizabeth Rubio	Project Documenter, Project Designer, Software Tester	Elizabeth Rubio	03/02/23
Alex Thompson	Quality Assurance Manager, Project Documenter	Alex Thompson	03/02/23
Ila Wallace	Project Manager, Document Editor, Software Developer	Ila Wallace	03/03/23

Document Approvals

Name	Role	Approval (Signature)	Approval Date
Kathryn Compton	Project Documenter, Project Designer, Software Tester	Kathryn Compton	03/03/23
Orlando Gomez	Software Developer, Project Designer	Orlando Gomez	03/03/23
Jacob Jones	Lead Software Developer, Lead Project Designer	Jacob Jones	03/03/23
Elizabeth Rubio	Project Documenter, Project Designer, Software Tester	Elizabeth Rubio	03/03/23
Alex Thompson	Quality Assurance Manager, Project Documenter	Alex Thompson	03/03/23
Ila Wallace	Project Manager, Document Editor, Software Developer	Ila Wallace	03/03/23

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Revision History

Date	Version	Description	Author
03/02/23	1.0	Preliminary Draft	Kathryn Compton, Jacob Jones, Elizabeth Rubio, Alex Thompson
03/03/23	1.1	Revision of Preliminary Draft - Basic revision for grammar and errors	Ila Wallace
04/07/23	2.0	Secondary Draft - Updated References list - Edited/added Design Decisions - Edited Design Constraints - Edited/added Modules - Added User Interface Design section content	Kathryn Compton, Elizabeth Rubio
04/07/23	2.1	Revision of Secondary Draft - Added UML Diagram - Added Screenshots	Jacob Jones, Ila Wallace
04/25/23	2.2	Second Revision of Secondary Draft - Updated References list	Kathryn Compton, Elizabeth Rubio
04/25/23	3.0	Final Draft - Final Revisions - Updated UML Diagram	Ila Wallace

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Table of Contents

1.	Introduction	5
1.1	Purpose of the Document	5
1.2	Scope of the Document	5
1.3	References	5
1.4	Definitions, Acronyms, and Abbreviations	5
2.	Product Scope	5
3.	System Design Decisions and Constraints	5
3.1	System Design Decisions	6
3.2	System Design Constraints	6
4.	Software Architectural Design	7
5.	Software Design - Modules/Classes	7
5.1	Module 1 – Login / Registration Page	7
5.2	Module 2 – Profile Viewing Page	7
5.3	Module 3 – Settings Page	8
5.4	Module 4 – Message Threads Page	8
5.5	Module 5 – One-to-One Message Page	8
6.	User Interface Design	8
7.	Appendix A – Definitions, Acronyms, and Abbreviations	9
8.	Appendix B – Class Diagram of the Software System	10
9.	Appendix C – User Interfaces	11

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Software Design Description (SDD)

1. Introduction

This document illustrates the software design for the development and deployment of the dating app cSpace by The Powdered Waffles team.

1.1 Purpose of the Document

The purpose of this document is to document the software design for the cSpace application.

1.2 Scope of the Document

This document will elaborate and focus on the software design of the cSpace application. It will mention the system design decisions and constraints. In addition, the software architectural design will be detailed and described. The software design will be broken down into several modules/classes. The description and mockups of the user interface design will be depicted in this document as well. A UML class diagram of the software system will be in Appendix B.

1.3 References

Below is a list of other documents that are related to the project:

- Project Proposal Document – Version 1.0 – Last Updated 01/03/2023
- Project Vision Document – Version 3.0 – Last Updated 04/25/2023
- Project Plan Document – Version 3.0 – Last Updated 04/25/2023
- Software Requirements Specifications – Version 3.0 – Last Updated 04/25/2023
- Software Test Document – Version 3.0 – Last Updated 04/25/2023
- Software Source Code – Version 3.0 – Last Updated 04/25/2023

1.4 Definitions, Acronyms, and Abbreviations

See Appendix A.

2. Product Scope

The product scope includes creating a sleek, easy-to-use application. The system will also have safety features and a secure account system implemented to ensure users' comfort and safety. A user chat system will be utilized as well so users may experience the application to its fullest extent. A filtered search system that enables users to select certain characteristics to include and/or exclude from their matches will be included as well.

3. System Design Decisions and Constraints

This section outlines the type of system design decisions and constraints for the cSpace dating application.

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

3.1 System Design Decisions

System Design Decision ID	Date	Design Decision	Reason
DD-1	02/27/23	Login/Registration Screen	Users will need a starting page to log in or register for the application.
DD-2	02/27/23	Messages Screen	Users will need a page to allow for communication between users.
DD-3	02/27/23	Settings Screen	Users will need a page to allow for edits/ changes to their user profile.
DD-4	02/27/23	Profile Viewing Screen	Users will need a page to allow for viewing other users' profiles when being matched.
DD-5	02/27/23	Colors of White, Teal, Black	These colors were chosen as a homage to the sea, and to the school that provided an institution for the application's start.
DD-6	02/27/23	Ensuring a minimalistic UI	The mission of our UI design is to be simplistic and easy to use in all regards to allow for a significantly better user experience.
DD-7	04/07/23	Using a Firebase database	A database is the optimal place to store a large amount of user data securely.

3.2 System Design Constraints

System Design Constraint ID	Date	Constraint	Reason
DC-1	02/27/23	No random user/match selection. All profiles will be visible to the user using a tag system	Users will be able to search through all nearby users using tags, not a random selection system like traditional dating apps.

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

DC-2	02/27/23	Mobile Responsiveness	The application must be easy to use on a mobile platform as the application is designed specifically for these OS.
DC-3	02/27/23	Security for user information	Users must be protected from any potential harm from malicious sources.

4. Software Architectural Design

This section outlines the software architecture design of the cSpace application.

5. Software Design - Modules/Classes

Module/Class Name	Module Short Name (If there is one)	Short Description of the Module/Class
Login / Registration Page	-	The main login/registration page will be where users can log in or register for their cSpace account.
Profile Viewing Page	-	The profile viewing page will contain the main hub of profiles to be searched through.
Settings Page	-	The settings page will allow users to view the collection of all editable user settings.
Message Threads Page	-	The message threads page will contain the list of user message threads with other users.
One-to-One message Page	-	The one-to-one message page will show the conversation between two users and allow them to chat with each other.

5.1 Module 1 – Login / Registration Page

This page is the introductory page that users will be presented with. This page will be animated and present users with the option to login or to register for the app. If a user has already signed in, then they will be presented with the Module 2- Profile Viewing screen.

5.2 Module 2 – Profile Viewing Page

This screen will consist of a search bar with a given set of tags. These tags will narrow down searches for users that have the desired tags, IE “looking for love”, “Blonde”, etc. Without anything present the screen will just bring up the most recently active users. If a user has already liked a user they will not show up again to allow for easy searching.

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

5.3 Module 3 – Settings Page

This page will contain all user settings such as a biography, account settings, payment settings, etc. This page will connect to many more simplistic pages that will allow users to update their desired settings.

5.4 Module 4 – Message Threads Page

This page will show all user messages/matches that have accrued if any. This page will have a list of all users matched along with a back arrow to the application's main screen.

5.5 Module 5 – One-to-One Message Page

This page will be for users who have matched and are now communicating with each other. No images will be able to be sent through the app to both save on resources but also to protect users from any potential graphic content. This page will also have an option to block/report/unmatch. This will also be for users to protect themselves or to disengage with fellow users.

6. User Interface Design

The user interface of the cSpace application is designed to be intuitive and aesthetically pleasing. The overall color scheme of white, teal, and black creates a pleasing yet simple aesthetic for the application. The landing page for logged out users simply displays their two options of logging in or registering for an account. The lack of extra noise on this page ensures a straightforward experience from the beginning. The profile viewing page displays each user profile in its own rectangle and arranges the profiles in rows of two. This allows the user to clearly see important details of each profile while also being able to view multiple profiles on the same screen. The settings page displays a simple, organized list of settings that each user can change. The list is organized logically so users can easily find the option they wish to view or change. The message threads page will display the list of chats with profiles the user has matched with. The threads are organized by latest activity, which will allow the user to easily navigate to their latest messages or start a new conversation with their newest matches. The one-to-one messages page shows all previous messages sent between a user and one of their matches. It will show the name of the user they are communicating with and a text box to compose and send new messages. This is set up like most messaging interfaces so that users will already have an understanding and familiarity with the messaging layout. At the top of the screen by the user's name, there are options to block, report, or unmatch from the user. These options are placed here so that a user can easily locate them and disengage as soon as possible if they have a negative messaging experience.

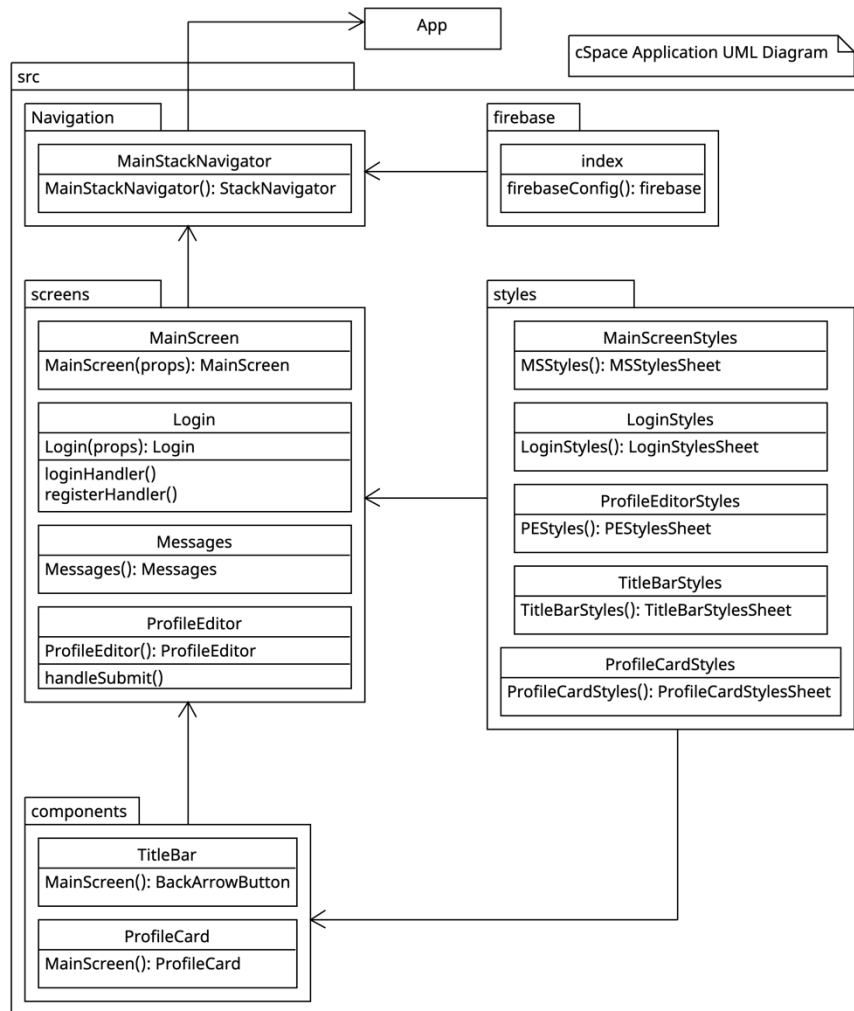
cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

7. Appendix A – Definitions, Acronyms, and Abbreviations

Term	Abbreviation / Acronym	Definition
Dating Applications	Dating App(s)	A software application used for mobile devices such as phones, tablets, and other handheld personal devices. The primary focus of the software is providing the user a way to interact with other individuals interested in dating and/or relationships.
College Students	Students	Individuals who are currently enrolled in a 2-year or 4-year institution that is designated as a college or university.
Targeted Advertisements	Targeted Ads	Advertisements supplied by outside companies who wish to utilize the digital real estate of cSpace to gain exposure to potential customers of specific brands, goods, and services.

cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

8. Appendix B – Class Diagram of the Software System



cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

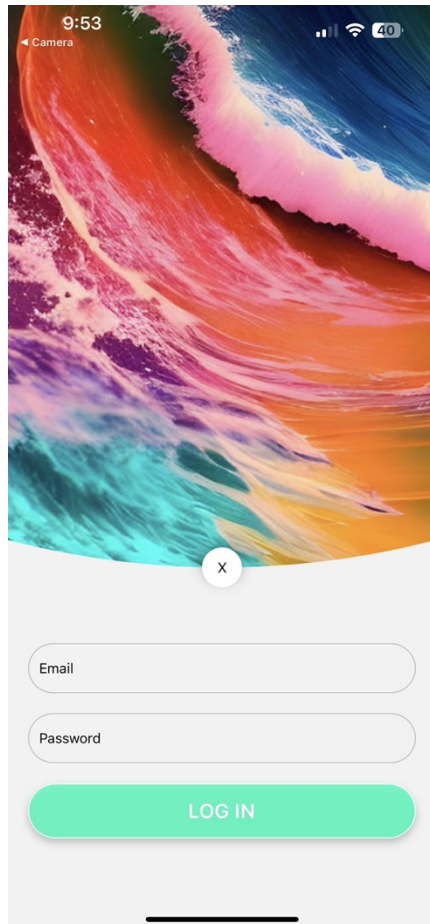
9. Appendix C – User Interfaces

Non-coded outline of the Profile page



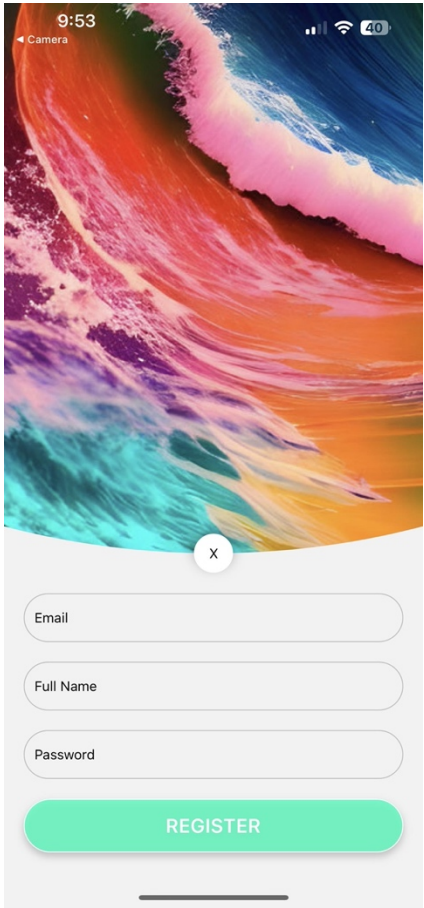
cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Coded Login Page live from an iPhone 14:



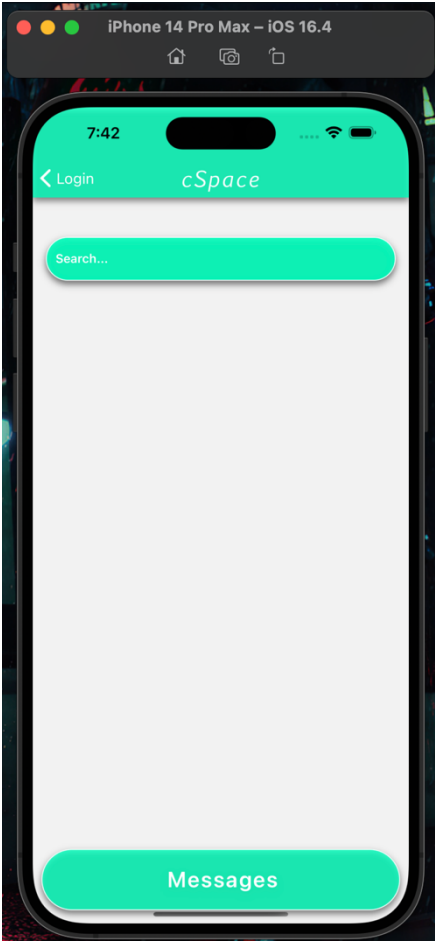
cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Coded Register Page live from iPhone 14:



cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Search Page live from iPhone 14:



cSpace	Version: 3.0
Design Document	Date: 04/25/23
Software Design Document	

Messages Page live from iPhone 14:

