

## .Section 1 - Project Description

### 1.1 Project

The project name: SplitIt

### 1.2 Description

Brief overall description of the project:

Create and manage a group of people: allow users to create a group within the application to split the bill accordingly, ability to add, remove members. The ability to track bills and allow users to track any pending bills that are yet to be spit/resolved. User friendly, allows users to quickly split their bills based on their rules or with templates.

### 1.3 Revision History

Date	Comment	Author
10/8/23	0.1 Initial Draft	Sydney Khiev Ren Hao Wong Brandon Becerra Zhen Wei Ng Roberto Cruz

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## Section 2 - Overview

### 2.1 Purpose

Brief description of the focus of this module of the overall project and its intended audience.

Intended audience:

Anyone who needs to split a bill on a regular basis like family, friends, parties, couples, roommates, students.

The product is intended to serve the people, the people who gather together or even the people who are alone and want to split their expenses among themselves.

### 2.2 Scope

Describe the scope of the module to be produced

Benefits: Providing user a fast, simple and easy way to split a bill among other people  
Objectives & Goals: Easy way to split the bill and remove the hassle of splitting the bill up manually

The benefits of having a bill splitting application like this, are the capabilities anyone would have with keeping track of their own expenses when splitting a bill. The objective of our project is to create a platform where you can manage your own spending while also seeing the spending of everyone else that the bill is split among.

### 2.3 Requirements

Your mileage may vary -- we typically break down the requirements to provide a ballpark estimate.

Design Requirements:

- Intuitive and visually appealing navigation for the app.
- Responsive and smooth usage throughout the app
- User data is protected

Graphic Requirements:

- Graphic demands on device should be low to ensure performance
- Appealing and easy to understand graphics
- Able to scale seamlessly at different screen sizes

OS Requirements:

- Major mobile operating systems like Android and IOS
- APK versions may be shipped for Huawei or other OS devices
- OS supported version: Android 6/8 and above, IOS 13/15 and above

Constraints:

- Product meets target audiences expectations
- Compliant with Android and IOS regulations
- Developed prototype within time frame of 11 weeks

## 2.3.1 Estimates

#	Description	Hrs. Est.
1	Brief description of task / module with link	# est
	<b>TOTAL:</b>	# est tot

## 2.3.2 Traceability Matrix

Cross reference this document with your requirements document and link where you satisfy each requirement

SRS Requirement	SDD Module
Req 1	5.1.1 (link to module), 5.1.2 (link)

# Software Design Document

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## Section 3 - System Architecture

Describe/include a figure of the overall system architecture (and where this module fits in)

## Section 4 - Data Dictionary

Brief description of each element in this module or a link to an actual data dictionary

(template of a database table description)

Table		
Field	Notes	Type
ID	Unique Identifier from TABLE SEQ	DECIMAL
NAME	The Name in Object.Name()	VARCHAR
VALUE	The Value output from somewhere	VARCHAR

## Section 5 - Software Domain Design

### 5.1 Software Application Domain Chart

Describe / chart each major software application domain and the relationships between objects (UML, etc)

### 5.2 Software Application Domain

A Comprehensive high level description of each domain (package/object wherever it is better to start) within the scope of this module (or within the greater scope of the project if applicable)

#### 5.2.1 Domain X

A high level description of the family of components within this domain and their relationship. Include database domain, stored procedures, triggers, packages, objects, functions, etc.

##### 5.2.1.1 Component Y of Domain X

Define Component Y, describe data flow/control at component level

##### 5.2.1.1.1 Task Z of Component Y1 of Domain X

Define Task Z, describe data flow/control at task level

## Section 6 – Data Design

Describe the data contained in databases and other shared structures between domains or within the scope of the overall project architecture

### 6.1 Persistent/Static Data

Describe/illustrate the logical data model or entity relationship diagrams for the persistent data (or static data if static)

#### 6.1.1 Dataset

Describe persisted object/dataset and its relationships to other entities/datasets

## 6.1.2 Static Data

Describe static data

## 6.1.3 Persisted data

Describe persisted data

## 6.2 Transient/Dynamic Data

Describe any transient data, include any necessary subsections

## 6.3 External Interface Data

Any external interfaces' data goes here (this is for the data, section 8 is for the interface itself)

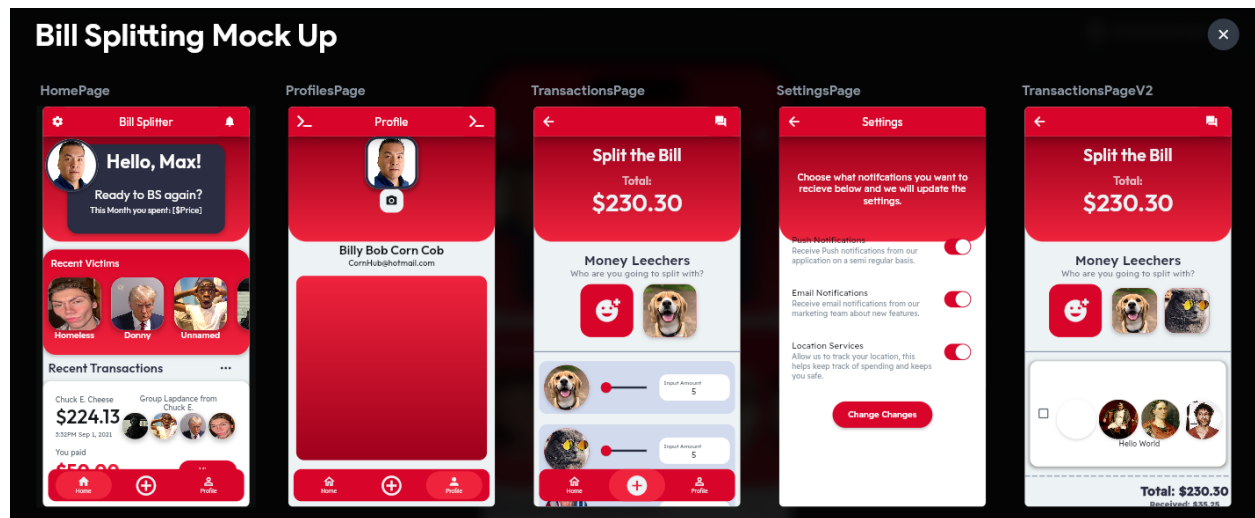
## 6.4 Transformation of Data

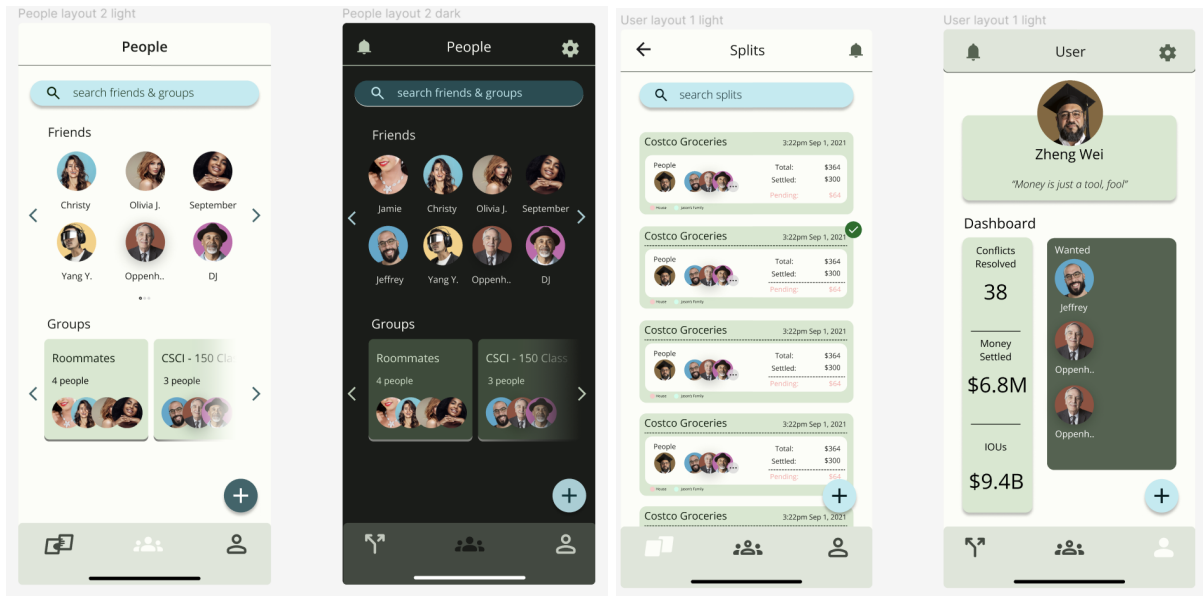
Describe any data transformation that goes on between design elements

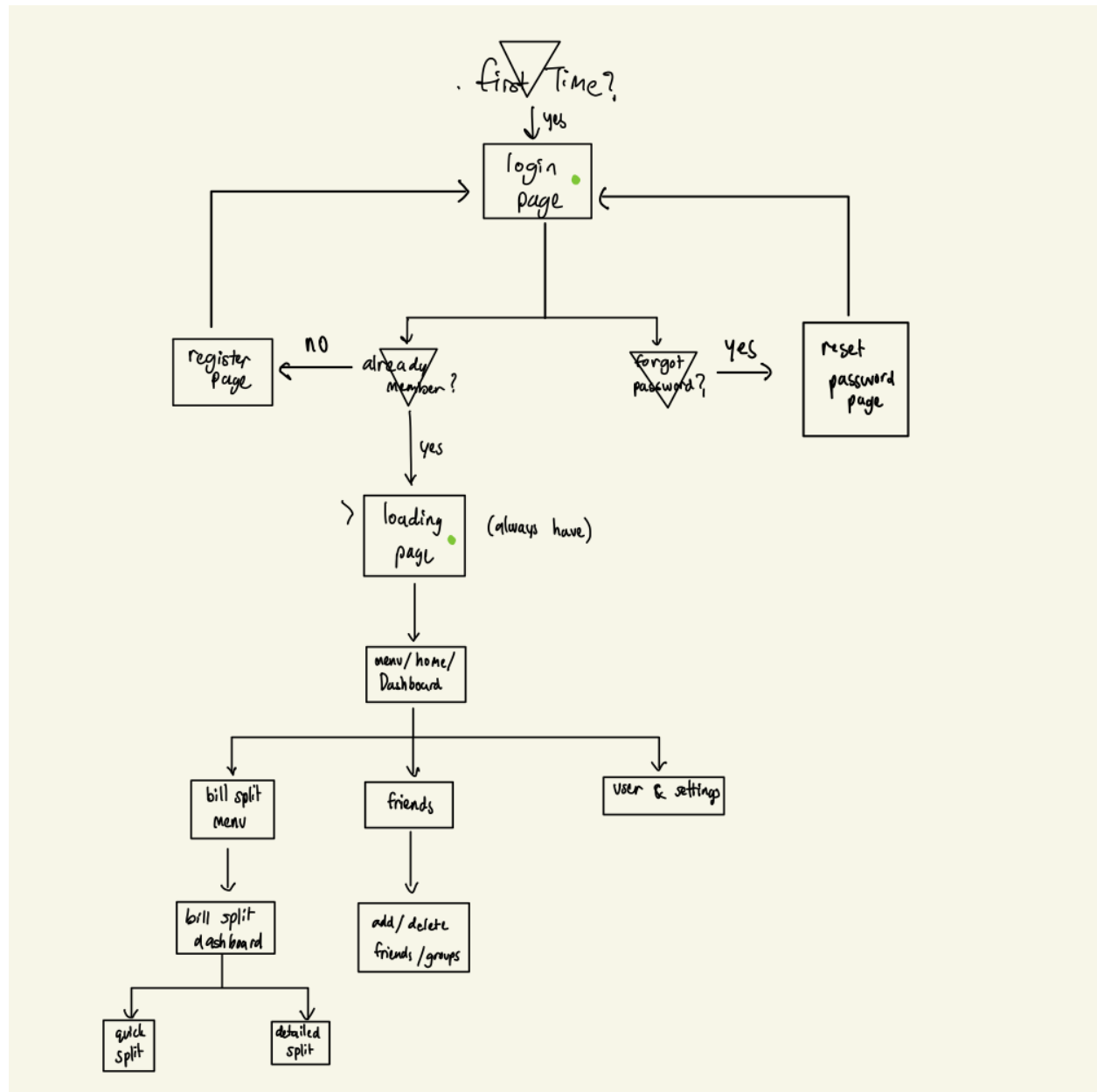
## Section 7 - User Interface Design

### 7.1 User Interface Design Overview

Pictures, high level requirements, mockups, etc.







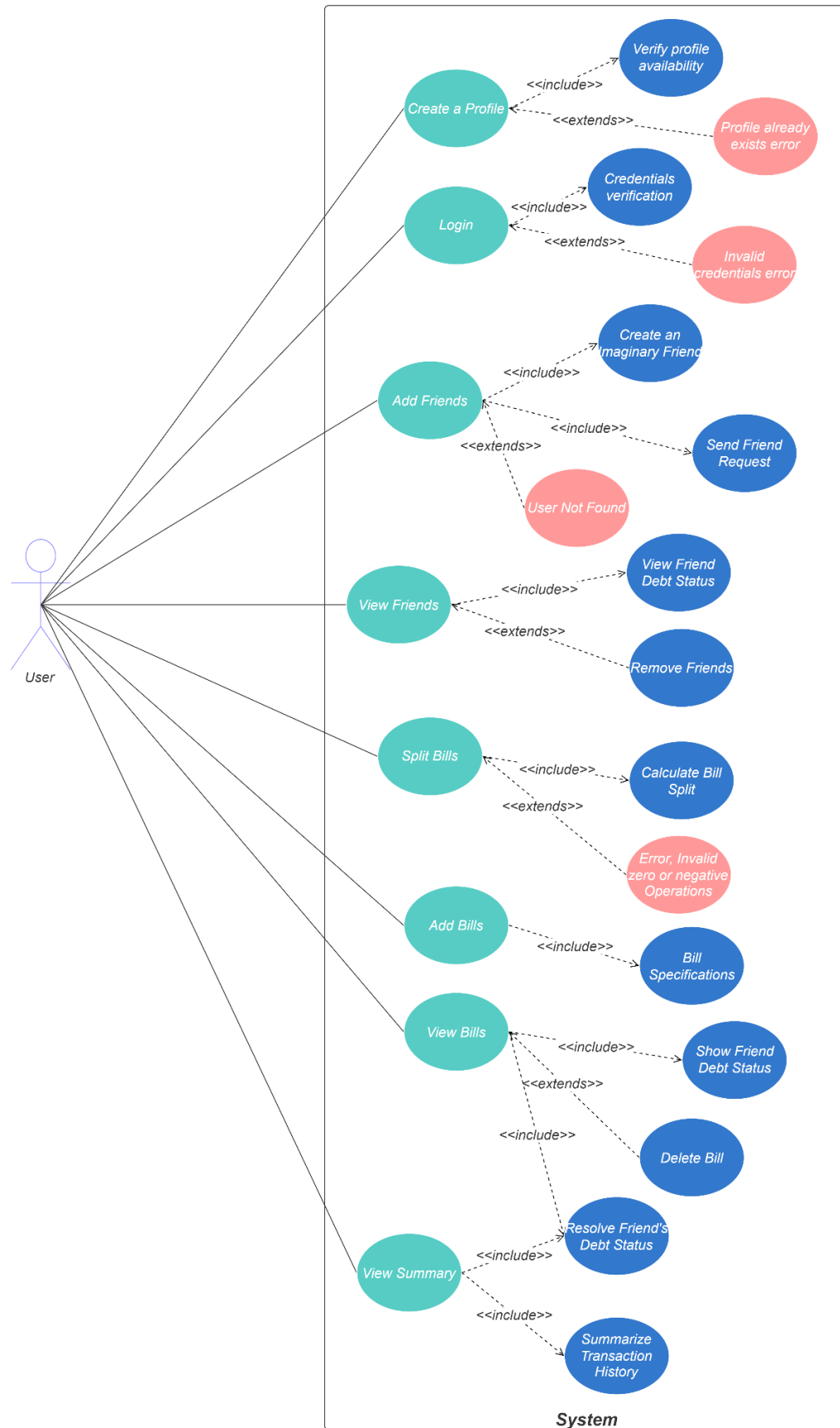
## 7.2 User Interface Navigation Flow

Diagram the flow from one screen to the next

## 7.3 Use Cases / User Function Description

Describe screen usage / function using use cases, or on a per function basis





## Section 8 - Other Interfaces

Identify any external interfaces used in the execution of this module, include technology and other pertinent data

### 8.1 Interface X

Describe interactions, protocols, message formats, failure conditions, handshaking, etc

## Section 9 - Extra Design Features / Outstanding Issues

Does not fit anywhere else above, but should be mentioned -- goes here

## Section 10 – References

Any documents which would be useful to understand this design document or which were used in drawing up this design.

## Section 11 – Glossary

Glossary of terms / acronyms

OS: Operating System

UI: User Interface

BS: Bill Splitting

HTTPS: HyperText Transfer Protocol Secure.

Flutter: Open-Source Software Development Framework.

Dart: Programming language used to develop Web and Mobile applications.