

# **Operational Concept Description (OCD)**

## **WitsMo Financial Therapy Mobile App**

### **Team #11**

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## Version History

Date	Author	Version	Changes made	Rationale
10/21/19	Isaac Delgado	1	Initial Creation of document, filled information known for VC Package delivery.	Created initial document For VC Package

<b>1. Introduction</b>	<b>4</b>
1.1. Purpose of the OCD	4
1.2. Status of the OCD	4
<b>2. Shared Vision</b>	<b>5</b>
2.1. Benefits Chain	6
2.2. System Capability Description	6
2.3. System Boundary & Environment	7
<b>3. System Transformation on Current System</b>	<b>8</b>
3.1. Information on Current System	8
3.1.1. <i>Infrastructure</i>	8
3.1.2. <i>Artifacts</i>	8
3.1.3. <i>Current Business Workflow</i>	9
3.2 System Objectives, Constraints and Priorities	10
3.2.1. <i>Capability Goals</i>	10
3.2.2. <i>Level of Service Goals</i>	11
3.2.3. <i>Organizational Goals</i>	11
3.2.4. <i>Constraints</i>	11
3.2.5. <i>Relation to Current System</i>	12
3.3. Proposed New Operational Concept	13
3.3.1 <i>Element Relationship Diagram</i>	13
3.3.2 <i>Business Workflows</i>	14
3.4. Organizational and Operational Implications	15
3.4.1. <i>Organizational Transformations</i>	15
3.4.2. <i>Operational Transformations</i>	15

# **1. Introduction**

## **1.1. Purpose of the OCD**

This OCD document is written to illustrate the shared visions' of the success-critical stakeholders for WitsMo Financial Therapy App. This document will detail the desired goals, core capabilities, the expected benefits, the proposed system, and constraints associated with the development of this system. The success-critical stakeholders involved with this system include the following:

- Ivy Xiao; Founder of WitsMo & Project Owner
- Lei Wang; Technical lead for WitsMo / Maintainer
- Tom Taulli; Business advisor for Witsmo
- WebApp Team; (USC-CSCI 590) / Web Development Team
- USC-CSCI 577a Team #11; Mobile Development Team
- Millennials; Users of the system
- Financial Experts: Service Providers of the system

## **1.2. Status of the OCD**

This is the initial conception of the OCD document (version 1.0) and will be treated as an OCD draft until further refinement for the FCP.

## 2. Shared Vision

The shared vision of the system between success-critical stakeholders is to supply on-demand financial therapy by facilitating the connection with financial advisors through networking technology. The overall qualitative goal is to alleviate financial stress and anxiety through a more personal approach that other financial firms ignore.

<b>Assumptions</b>			
There are people looking for financial advice There are financial experts looking for more clients All users will have access to internet and iOS/Android mobile phones Early career financial experts are looking for additional income			
<b>Who?</b>	<b>What?</b>	<b>Why?</b>	<b>For Whom?</b>
United States non-financial experts (Regular Users) who are in financial guidance need, millennials	Non-financial experts (guest & registered users) will use the system, give feedback, schedule appointments, and produce revenue for Witsmo and financial experts	Regular Users: Increase financial education Increase financial health Decrease financial anxiety	Witmo (Ivy Xiao, Tom Taulli, Lei Wang)
Early-Career financial experts who need clients and additional income Ivy Xiao, (our client) Founder of Witsmo	Ivy Xiao will give constructive feedback, requirements, and direction to development team  Tom Taulli will give business requirements and direction to development team	Financial experts: Increase working experience Increase income Increase clientele	Regular Users
Tom Taulli, Business advisor for Witsmo Lei Wang, Technical Lead for Witsmo (maintainer)	Lei Wang will give technical guidance to development team	On demand financial support/advice	Financial experts
Witsmo webapp development team/maintainers  Witsmo Mobile development team (Team 11)	Witsmo webapp will develop the web application including identical functionality to the mobile app such as video, audio, and messaging chats  Mobile App team will develop mobile system	Increase regular users and financial experts contact	

Table 1: The Program Model

## 2.1. Benefits Chain

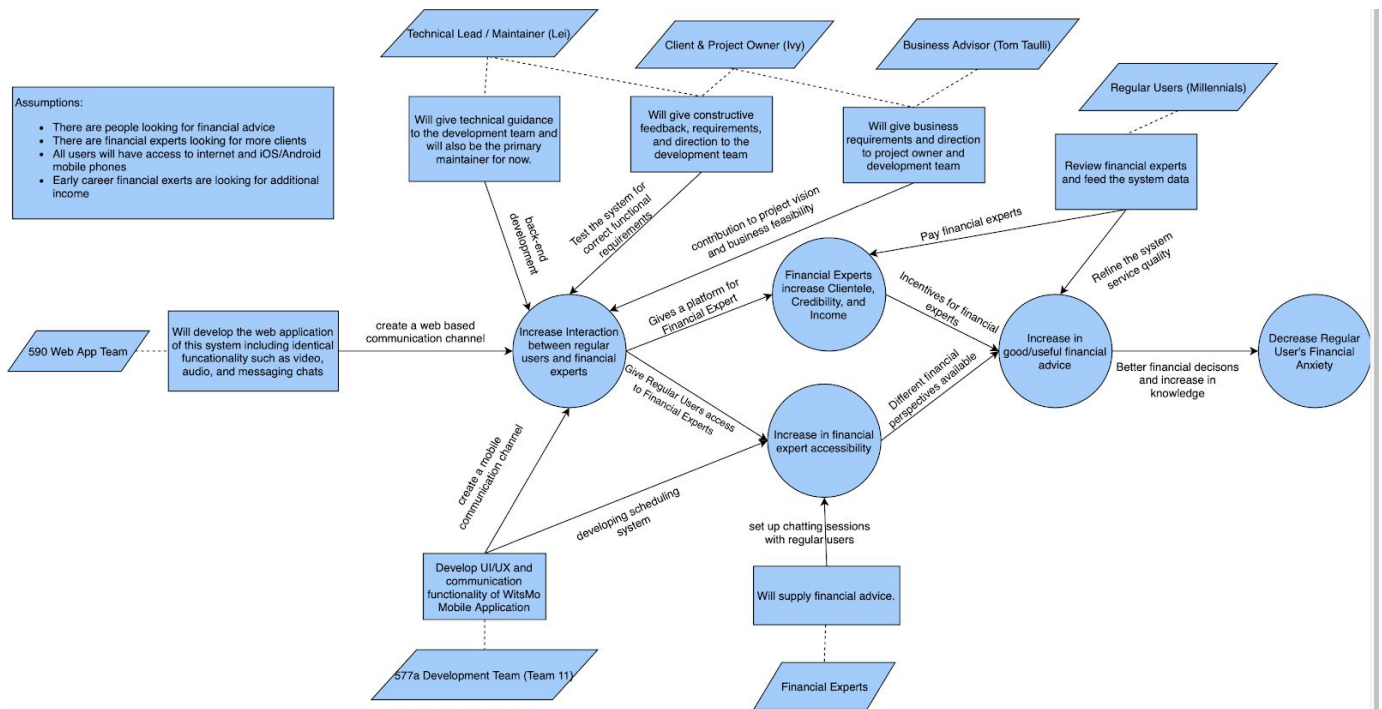


Figure 1: Benefits Chain Diagram of Student Scheduling System

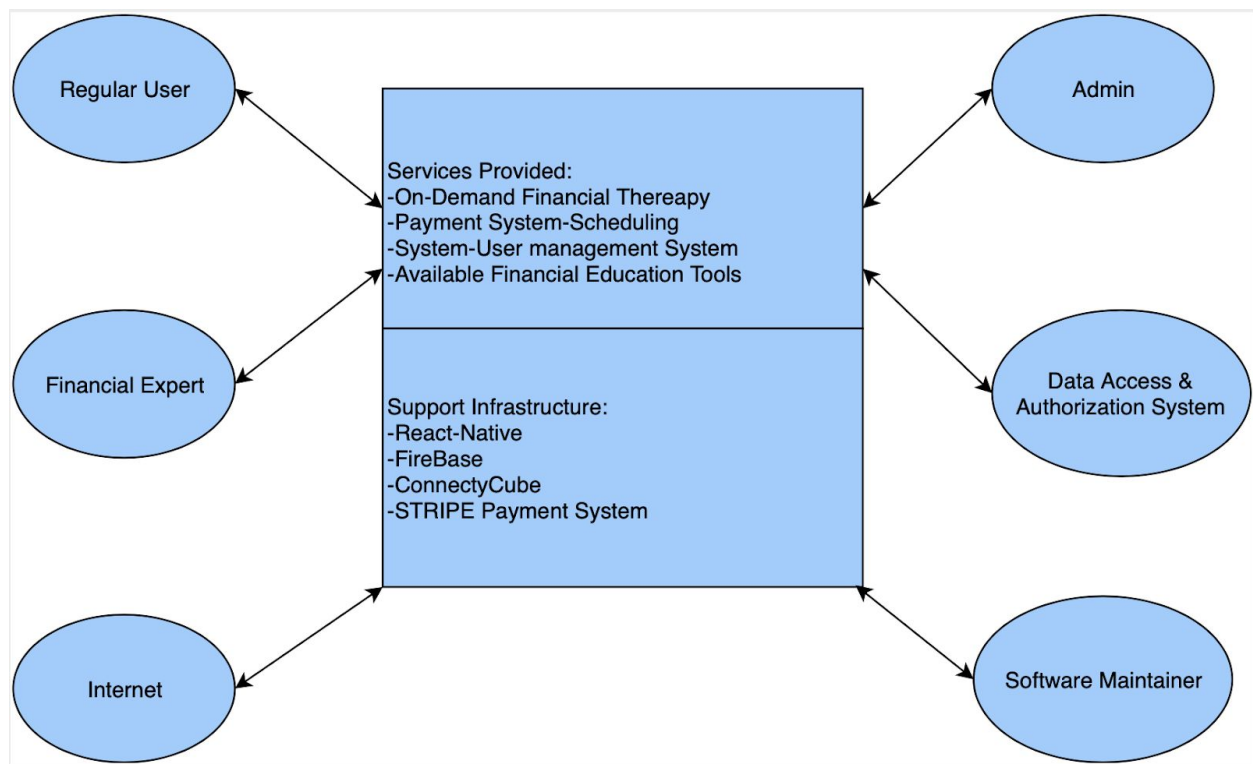
## 2.2. System Capability Description

This system will be developed as an iOS and Android application using React Native. This system will also accompany a web application counterpart that will be developed by the Web app team. Therefore a universal back-end will be developed for both platforms. The essential capability of the system is the ability to connect two users through a video, audio, or messaging chat session for a specified duration. These two users are financial experts and regular users. The target customers for regular users are millennials (ages 22-37 as of 2019) who will most likely be dealing with financial situations such as dealing with student loans, getting married, starting families, and purchasing a home. In addition, this system will target financial experts early in their careers who, in turn, may be looking for more clientele to increase their experience, credibility, and income. The motivation for this system is to relieve financial anxiety for individuals. The average person is not well versed in finance and so naturally they try looking for expert advice. However, working with a financial expert at a firm usually means working with a salesperson which makes it difficult to find an expert without a hidden agenda. Moreover financial advice can be confusing and complex in the first place. Thus this system will provide on-demand financial therapy through informal chat sessions along with easy to use financial tools such as financial calculators to simply financial advice. This system will also prohibit any solicitation from financial experts so that advice given is not tied to any third-party incentives. This system will also incorporate a psychology influenced analysis by administering test to the

regular users in an attempt to gauge their personality traits with their finances. The system will then take these results and recommend specific financial experts or articles in hopes of giving financial advice that is specific for that particular user. Some of the closest competitors to this system are Personal Capital, Smart Advisor, Robinhood, Wealthfront, and ellevest. However this system will be more affordable, informal and tech driven given the accessible mobile app interface and the psychology influenced functionality.

## 2.3. System Boundary & Environment

Figure 2: System Boundary and Environment Diagram of Student Scheduling System



## 3. System Transformation on Current System

### 3.1. Information on Current System

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#### 3.1.1. Infrastructure

Currently there is no system in place, this system will be replacing the initial processes how people would originally search for financial advice. People would go out to firms to find a financial experts but this process can be daunting as it can be difficult not knowing where to start, what firms are trustworthy, and if they are getting true price for the consultation. Thus an additional stress on finding financial strategy help is added.

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#### 3.1.2. Artifacts

Artifact	Description
Popular Financial Firm Websites	Popular financial firms like Personal Capital, Smart Advisor, and Robinhood have available websites that provide a service similar to this system.
Financial Documents	Users will be swifting through financial documents such as financial statements, broker statements, tax related documents, etc.
Online Financial Tools	There are available financial tools across the web to help people with mortgages, student debt, financial planning such as calculators to automatically print out payment plans.

Table 2: Artifacts



### 3.1.3. Current Business Workflow

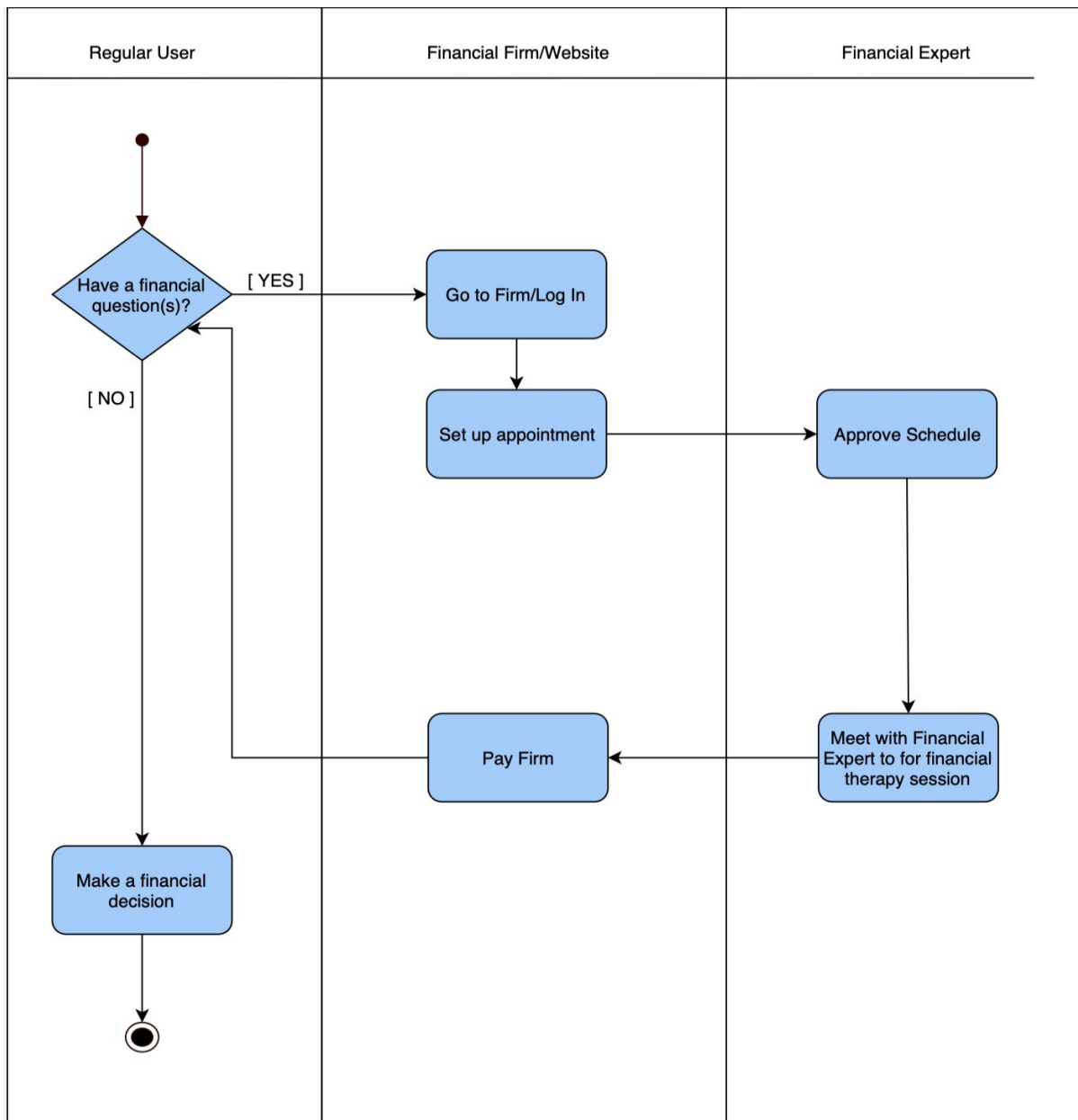


Figure 3: Current Business Workflow

## 3.2 System Objectives, Constraints and Priorities

### 3.2.1. Capability Goals

Capability Goals
<b>OC-1 Profile Creation:</b> Both Regular Users will be able to make a profile
<b>OC-2 Financial Expert Search:</b> Regular Users will be able to search for financial experts
<b>OC-3 Appointment System:</b> Regular Users and Financial Experts will be able to make appointments and confirm appointments respectively.
<b>OC-4 Communication System:</b> Video, Audio, and Message chat functionality between Regular Users and Financial Experts
<b>OC-5 Payment System:</b> Regular Users will be able to pay Financial Experts
<b>OC-6 Reviews:</b> Regular Users will be able to post a review about a Financial Expert
<b>OC-7 Education Resources:</b> The system will provide finance education links, resources, and tools

**Table 3: Capability Goals**

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### 3.2.2. Level of Service Goals

Level of Service Goals	Desired Level	Acceptance Level	Notes
<b>LOS-1 LogOn Time:</b> The time it takes for a user to log on and load their profile	1 second	5 seconds	Average Logon times here: <a href="https://www.controlup.com/log-on-duration-insights-from-20-million-logons/">https://www.controlup.com/log-on-duration-insights-from-20-million-logons/</a>
<b>LOS-2 Making Appointment:</b> The time it takes for a regular user to make an appointment with the first financial expert that pops up.	1 minute	2 minutes	
<b>LOS-3 Search Financial Expert Query:</b> The time it takes for a search result to return for a specific category, name, or keyword	1 second	5 seconds	
<b>LOS-4 Video Chat Jitter tolerance:</b> The average time of lag glitches within a video chat session	< 30ms	1 sec	Acceptable jitters by cisco: <a href="https://medium.com/@datapath_io/what-is-acceptable-jitter-7e93c1e68f9b">https://medium.com/@datapath_io/what-is-acceptable-jitter-7e93c1e68f9b</a>

**Table 4: Level of Service**

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### 3.2.3. Organizational Goals

**OG-1:** Decrease financial anxiety for regular users

**OG-2:** Increase outreach and income for early-career financial experts

**OG-3:** Increase financial expert accessibility

**OG-4:** Increase financial health

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### 3.2.4. Constraints

**CO-2:** The system must have on-demand financial expert accessibility.

**CO-3:** The system must be built using React Native

**CO-4:** The system must be a mobile application, accessible through iOS and Android

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### 3.2.5. Relation to Current System

Capabilities	Current System	New System
User Interaction	Contact financial experts through firms, either in person or through web interface	Directly contact financial experts through web interface
Regular User Finance Education	Locate online resources through google search engine	Provide links to financial resources in one location within the system
Payment	Regular users pay firms which will pay financial experts	Regular users directly pay financial experts through third-party payment systems (Strip, PayPal, etc.)
Transparency	Financial experts have incentives to sell their firm's resources regular users	Financial experts are prohibited from selling anything but their finance advice service
Financial Expert career development	Financial Experts tied to company, seniority involved	Financial experts can self gain clientele, credibility, and extra income without a firm

**Table 5: Relation to Current System**

### 3.3. Proposed New Operational Concept

#### 3.3.1 Element Relationship Diagram

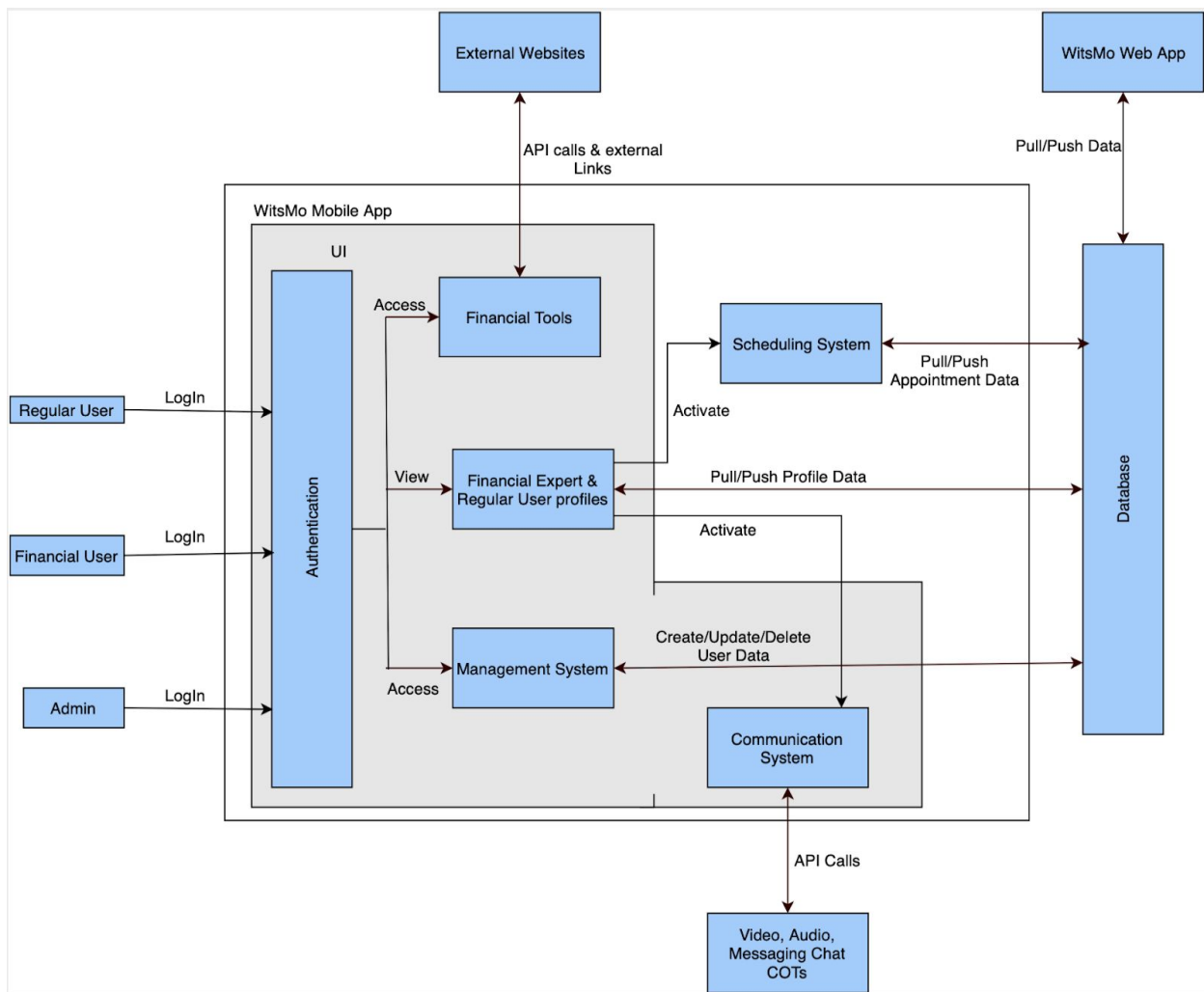


Figure 4: Element Relationship Diagram

### 3.3.2 Business Workflows

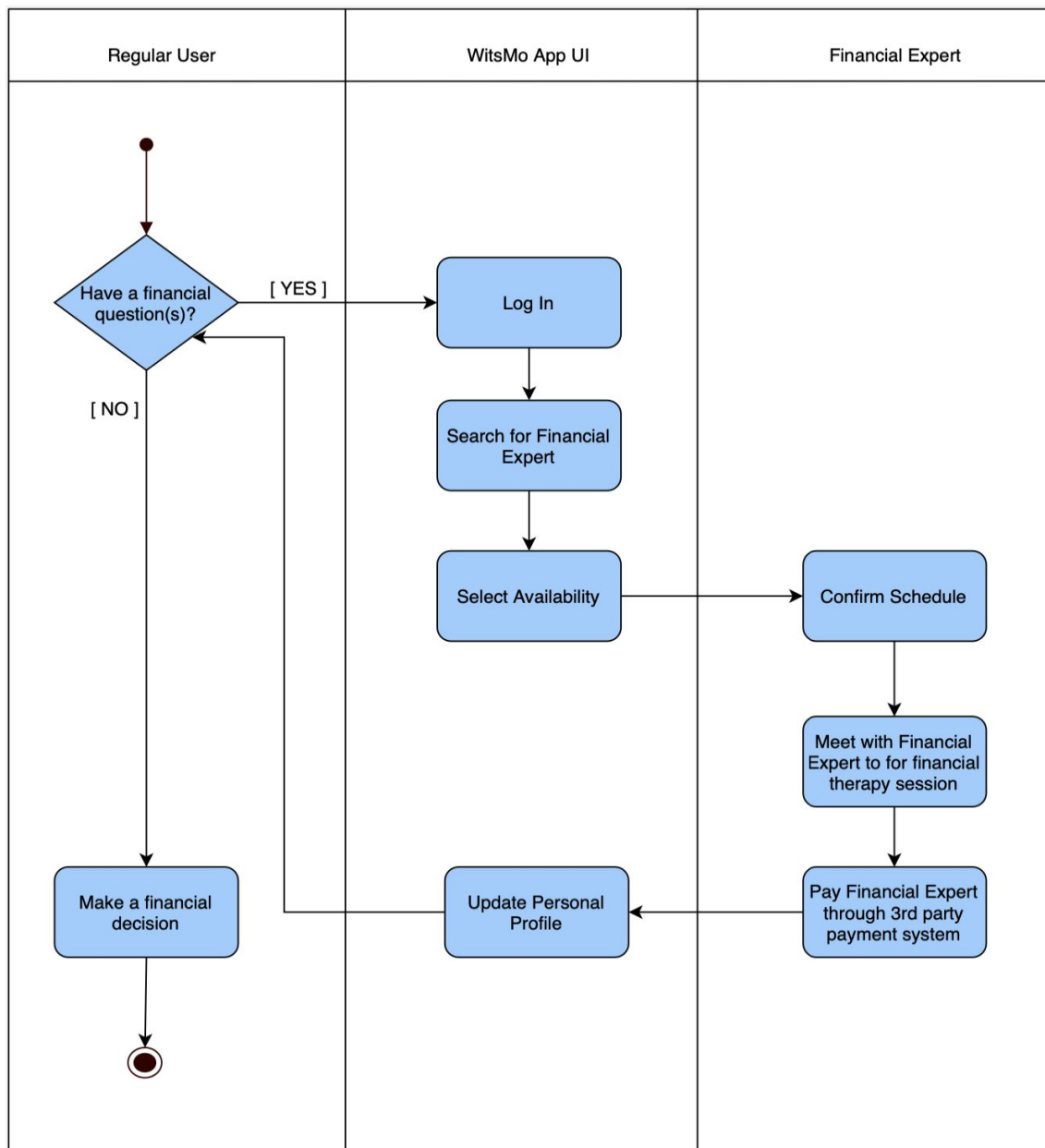


Figure 5: Business Workflows Diagram

## **3.4. Organizational and Operational Implications**

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### **3.4.1. Organizational Transformations**

- Elimination of financial firms being the “middle man” between financial experts and regular users requesting their professional advice
- Elimination of “hidden agendas” from financial experts selling regular users anything but their expert advice.
- Elimination financial experts being dependent on financial firms to achieve clientele, credibility, and income.
- The need for training software maintainers to use and manage the new system and its interaction with the web application counterpart.

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### **3.4.2. Operational Transformations**

- Regular users will be able to have on-demand access to financial experts through a built in search engine and scheduling system
- Financial experts will be indepent from firms by scheduling sessions with clients from across the network and at anytime.
- Regular users will have access to financial education tools in one location within the mobile app, rather than google searching themselves.