Deliverable 2

IS 436 Structured System Analysis and Design
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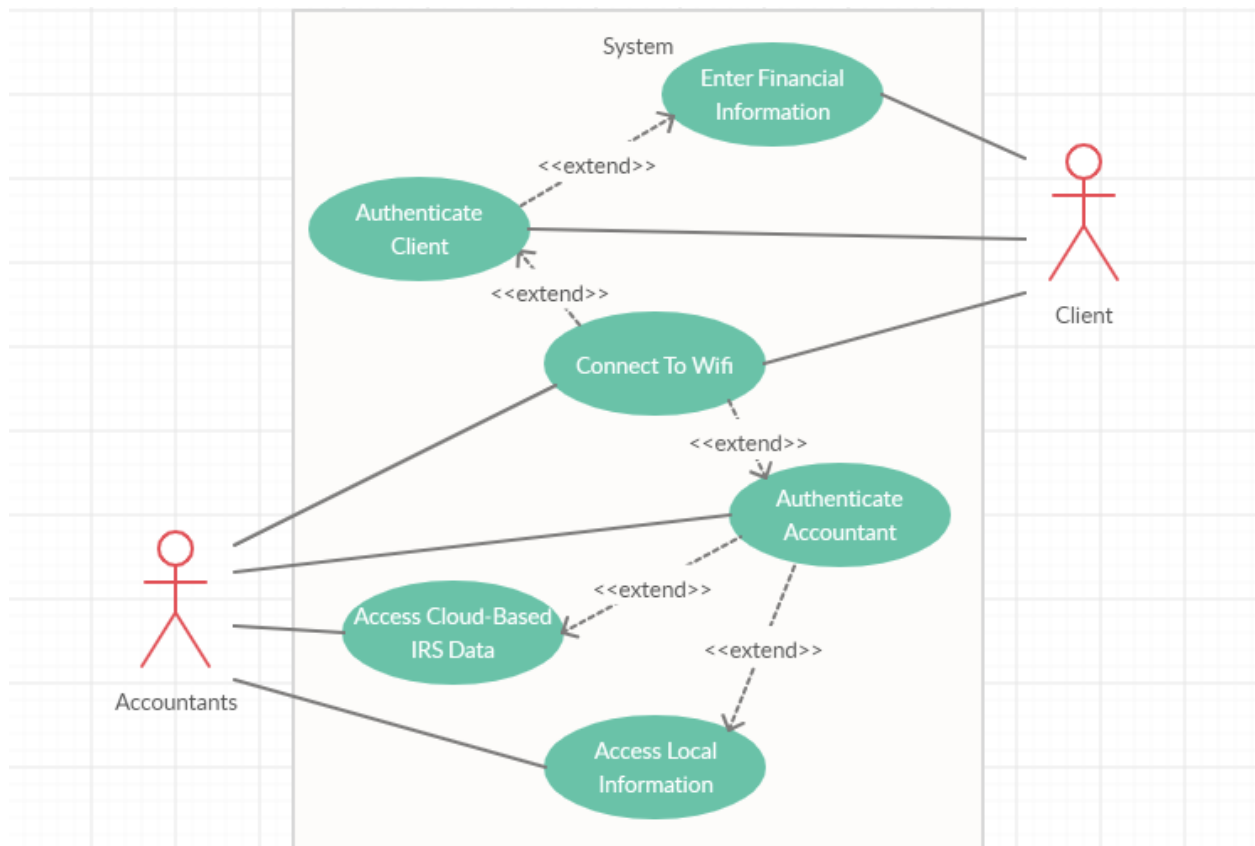Submitted 3-11-20

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As Is Use Case Diagram

For the use case diagram, scope has been focused to the main points of the issue: Connecting to a common wifi, authentication of both the accountant and clients from that common access, and data access associated with said authentication.

Use Cases

Use Case Name	Connect To Wifi
ID	UC-0
Priority	High
Actor	Client, Accountant
Description	User connects to the wifi provided from the firm's building
Trigger	Users need connection to the network and/or internet
Type	External
Preconditions	1.Wifi is online 2.Network is online 3.Given a first login, personnel with the wifi password is available

Normal Course	1.0 Connect to wifi
	   1.Identify the wifi
	   2a.If user does have the password, enter the password, go to 5
	   2b.If user does not have the password, ask personnel for the password
	   3b.Receive password from personnel
	   4b.Enter the password
	   5.Verify Connection

Postconditions	1.User is connected to the wifi 2.User somehow doesn't connect

Use Case Name	Authenticate Client
ID	UC-1
Priority	High
Actor	Client
Description	Client verifies their identity to access their account permissions
Trigger	Client wants access to their account
Type	External
Preconditions	1.Client has an account 2.Client is connected to the network 3.Website/service application are online

Normal Course	1.0 Authenticate Client
	   1.Client loads the firm's website/service application
	   2.Client enters username
	   3.Client enters password
	   4.Recieve authentication token

Postconditions	1.Client is authenticated 2.Client somehow fails to become authenticated

Use Case Name	Enter Financial Information
ID	UC-2
Priority	High
Actor	Client
Description	The client enters information to be stored
Trigger	The client chooses to disclose information
Type	External
Preconditions	1.Client is authenticated 2.Website/service application are online 3.The database is online

Normal Course	1.0 Enter Information
	   1.The client chooses what information they will add to their account
	   2.The client confirms that the information will be logged in the database
	   3.Information is stored in the appropriate datastore

Postconditions	1.Information is stored to the database 2.Information is not stored to the database

Fully Dressed:

Use Case Name	Authenticate Accountant	
ID	UC-3	
Priority	High	
Actor	Accountant	
Description	Accountant verifies their identity to access their account permissions	
Trigger	Accountant wants to acquire accountant permissions	
Type	External	
Preconditions	1.Accountant has an account 2.Accountant is connected to the network 3.Website/service application are online	

Normal Course /Information For Steps	1.0 Authenticate Locally
	  1.Enter password for system
	  2.Recieve local network authentication token (See Alternate Course 2.0)
		>Local system password
		<Local network authentication token

Alternate Course /Information For Steps	2.0 IRS Level Authentication (Occurs step 2
	  1.Enter IRS level secure access code
	  2.Recieve IRS level Authentication token
		>IRS secure access code
		
		<IRS level authentication token

Postconditions	1.Local network token received 2.Local network token and IRS token received 3.No tokens received	
Summary Inputs/Source	Local system password IRS secure access code	Accountant Accountant
Summary Outputs /Destination	Local network authentication token IRS level authentication token	Firm's local network IRS network

Use Case Name	Access Local Information
ID	UC-4
Priority	High
Actor	Accountant
Description	Accountant access sensitive information from the database in the firm's network
Trigger	Accountant has a need/want to access sensitive information
Type	External
Preconditions	1.Accountant has the local authentication token 2.Website/service application are online 3.The database is online

Normal Course	1.0 Access Local Information
	   1.Navigate to database
	   2.Navigate to destination folder
	   3.Retrieve relevant documentation/information

Postconditions	1.Relevant documentation/information is retrieved 2.Relevant documentation/information is not retrieved

Use Case Name	Access Cloud Based IRS Data
ID	UC-5
Priority	High
Actor	Accountant
Description	Accountant accesses highly sensitive information that is kept by the IRS
Trigger	Accountant has a need/want to access sensitive information kept by the IRS
Type	External
Preconditions	1.Accountant has the IRS level authentication token 2.Website/service application are online 3.The IRS' database is online

Normal Course	1.0 Access IRS stored information
	   1.Navigate to IRS cloud storage
	   2.Navigate to destination folder
	   3.Retrieve relevant documentation/information

Postconditions	1.Relevant documentation/information is retrieved 2.Relevant documentation/information is not retrieved

Requirements

Functional Requirements:

    Process Oriented:

    Both clients and accountants should be able to connect to the network.

    Both clients and accountants should be able to connect to the internet.

    The system must be able to authenticate both clients and accountants.

    Customers should maintain the ability to enter information.

    System should add at least 1 extra form of authentication beyond passwords

    Information Oriented:

    System must maintain a local datastore.

    System must maintain access to the IRS cloud storage.

    System must maintain financial information relevant to clients

Nonfunctional Requirements:

    Operational:

    System must operate on most devices for customers to use.

    System should integrate with the current datastore system.

    Performance:

    Authentication should have as little fault as possible.

System should be operational completely during the firm's operational period.

Security:
System should include all available safeguards from threats such viruses, worms, etc.

Cultural/Political:
System must follow IRS guidelines.

Methods

On Monday April 30 at 12pm, a video conference interview was conducted with Balagan Arumugaswamy,the owner of the company, by Jackson, and Abou attended to type the information presented. The following Q&A is the result of the interview.

1. What types of data are stored?

a. Bank statements are starting points. They figure out what is the income. If the clients make a certain amount of income, then they will not have to pay taxes.

2. What are your requirements to solve the current security problems?

a. The company needs a data security method regarding authenticating users who have access to the system. The method needs to be updated in a cycle of 30 days, 60 days, or 90 days depending on the situation. A feasible option is biometrics. A concern about this option is that it is very complicated and expensive.

3. How are customers accessing the wifi?

a. The wifi provided is part of the building's landline setup, and initially customers simply connected to the same wifi as the rest of the building.

4. How does the company interact with the IRS?

a. Data from the IRS is accessed through cloud computing. A secure access code is given to the company. This code needs to be renewed The IRS provides the company a license to practice. The IRS conducts a thorough background check of the company before giving the license to any third-party to access their databases.

5. Have there been any threats regarding security?

a. There have been no threats that have happened to this point but we, and the IRS, worry that threats may happen in the future.