# **Cairo University Faculty of Computers and Artificial Intelligence**



# **CS251**

# Intro. to Software Engineering

# **Invest Wise**

# Software Requirements Specifications

Implement User Stories with Yellow Background

ID	Name	Email	
20230479	Youssif Ahmed Omar Mohaned	youssifahmed12397@gmail.com	Ask if u have questions
20230433	Mo'men Mamdouh Mahmoud	Momenmamdouh122@gmail.com	Ask if u have questions
20231202	Yara Mamdouh Abdelhamid	yaramamdouh1312006@gmail.com	Ask if u have questions

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### **Software Requirements Specifications**

#### **Team**

ID	Name	Email	
20230479	Youssif Ahmed Omar Mohaned	youssifahmed12397@gmail.com	
20230433	Mo'men Mamdouh Mahmoud	Momenmamdouh122@gmail.com	
20231202	Yara Mamdouh Abdelhamid	yaramamdouh1312006@gmail.com	

### **Document Purpose and Audience**

### **Purpose**

Define requirements for a Sharia-compliant, multi-asset investment management app tailored to Egypt's market, addressing gaps in local financial tools.

#### **Audience**

- Developers (backend, frontend)
- Stakeholders (Egyptian investors, Islamic finance experts)

#### Introduction

#### **Software Purpose**

To empower Egyptian users to track stocks, real estate, gold, and crypto, automate zakat calculations, and receive Sharia-compliant investment recommendations through a unified Arabic-first platform

### **Software Scope**

#### Included:

- Multi-asset tracking (real estate, gold, stocks, crypto).
- Zakat calculation with customizable thresholds.
- o Integration with Egyptian banks (CIB) and global APIs (Binance).
- o Arabic UI with RTL support.

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Project: Invest Wise



### **Software Requirements Specifications**

#### Excluded:

o Direct stock trading (no brokerage integration).

Tax filing automation.

### Definitions, acronyms, and abbreviations

Phrase	Definition
HNWI	High-Net-Worth Individual
Zakat	Islamic wealth tax (2.5% of eligible assets)
Sharia Compliance	Investments avoiding interest (riba) and unethical industries
ROI	Return on Investment





### **Software Requirements Specifications**

### **Requirements**

### **Functional Requirements**

requirement ID	Requirement Statement	
FR01	The system shall allow users to create an account and log in securely.	
FR02	The system shall support tracking of investments in stocks, real estate, crypto, and gold.	
FR03	The system shall calculate and display net worth based on real-time asset value	
FR04	Users shall be able to set investment goals (e.g., retirement savings, wealth targets).	
FR05	The system shall provide risk assessment based on user portfolio diversification.	
FR06	The system shall support Islamic finance filters to exclude non-halal investments.	
FR07	Users shall receive automated reports on asset performance.	
FR08	The system shall integrate with Egyptian banks (e.g., CIB, QNB) for transaction tracking.	
FR09	The system shall offer Al-driven insights to recommend investment strategies.	
FR10	The system shall provide a dashboard with visualization tools (e.g., pie charts, trend lines).	
FR11	<ul> <li>The application shall have an Investment Dashboard panel where users can:</li> <li>Add and manage investment assets such as stocks, real estate, crypto, and gold.</li> <li>View performance metrics including ROI, asset distribution, and valuation trends.</li> <li>Edit or remove investment entries from their portfolio.</li> <li>Set automatic updates for asset values from linked financial sources.</li> </ul>	
FR12	The application shall have a Financial Goals panel where users can:  • Define specific savings and investment goals (e.g., retirement, wealth	





# **Software Requirements Specifications**

FR13	<ul> <li>accumulation).</li> <li>Track progress towards these goals using visual reports.</li> <li>Set automated savings allocations based on income sources</li> </ul> The application shall have a Risk & Allocation panel where users can:
	<ul> <li>Assess portfolio risk based on investment diversification.</li> <li>Receive recommendations for optimal asset allocation.</li> <li>Apply risk-adjusted return strategies for better financial planning.</li> </ul>
FR14	<ul> <li>The application shall have a Zakat &amp; Compliance panel where users can:</li> <li>Automatically calculate zakat obligations based on their investments.</li> <li>Apply Islamic finance filters to exclude non-halal investments.</li> <li>Generate compliance reports for tax and religious purposes.</li> </ul>
FR15	<ul> <li>The application shall have a Reports &amp; Insights panel where users can:</li> <li>Generate detailed reports on portfolio performance.</li> <li>Receive Al-driven investment insights based on historical data.</li> <li>Export financial reports in various formats (PDF, Excel).</li> </ul>
FR16	<ul> <li>The application shall have an Integration panel where users can:</li> <li>Connect with Egyptian banks (e.g., CIB, QNB) to sync transaction history.</li> <li>Integrate with stock market platforms (e.g., Thndr, Binance) for real-time price updates.</li> <li>Link external financial accounts for a unified investment overview.</li> </ul>





# **Software Requirements Specifications**

### **Non Functional Requirements**

Measure	Details	
Performance	<ul> <li>The Sign-in/sign-up screen should take about 6 seconds to load.</li> <li>Every panel in the system should take less than 5 seconds to load.</li> <li>Checking available account balances should take less than 20 seconds as it fetches information from another service.</li> </ul>	
Scalability	The system should be able to support up to 100,000 simultaneous users without performance degradation.	
Maintainability	The system should have 97% uptime, ensuring minimal downtime. Any critical issue should be resolved within 12 hours, and minor issues should be fixed within 48 hours	
Reliability & Availability	The system should maintain at least 99.5% availability per month. Data backups should occur daily, and a disaster recovery mechanism should ensure full restoration within 6 hours in case of failure.	
Portability & Compatibility	<ul> <li>The system should support Android OS versions 8.0 to 14.</li> <li>The system should be compatible with iOS devices running iOS versions 12.0 to 17</li> </ul>	
Security	<ul> <li>User authentication should follow OWASP security guidelines.</li> <li>User data should be encrypted in transit and at rest.</li> <li>The system should ensure that unauthorized users cannot access private financial data.</li> </ul>	
Usability	<ul> <li>The error rate for users signing in/up should be less than 5%.</li> <li>The time taken by a user to fill in their account details should not exceed 5 minutes.</li> <li>The time taken to retrieve financial reports should not exceed 10 seconds.</li> <li>The search function should retrieve relevant investment data within 4 seconds.</li> <li>The system should support accessibility features, including high contrast mode and screen reader support.</li> </ul>	

CS251: Phase 1

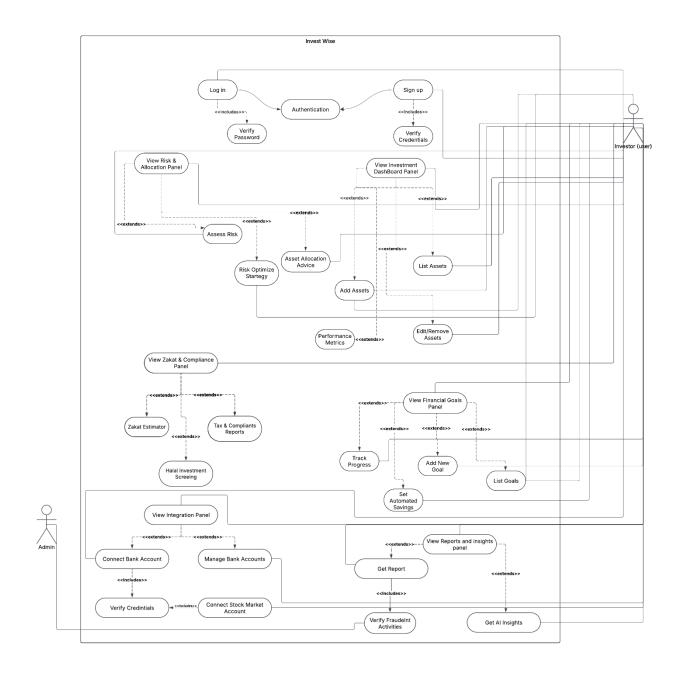
Project: Invest Wise



### **Software Requirements Specifications**

### **System Models**

**Use Case Model** 







### **Software Requirements Specifications**

### **Enriched User Stories**

• User Story #1 - Implement this

User Story ID	US #1
User Story Name	User Sign-up
Actors	User
Description	As a user,
	I'd like to be able to sign up to the application
	So that I can access its services.
Pre condition	
Post condition	
Acceptance Criteria	Given I'm a user and I'm on the sign-up page,
	When I fill in the sign-up information fields with my credentials and I click sign up,
	Then the system signs me up and redirects me to the login page.

#### **Scenarios**

Actor	System Response	
Action		
1- User clicks on sign up		
	2- System displays sign up page	
	3- System display boxes to input sign up	





# Software Requirements Specifications

	information
4- User fills in the boxes	
	5- System verifies the user information
	6- System saves user information in the database

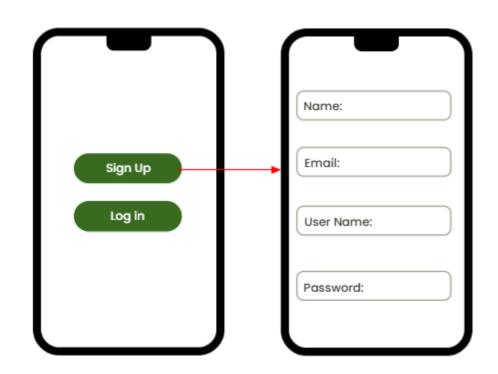
#### **Exceptional Scenario**

Actor	System Response
Action	
1- User clicks on sign up	
	2- System displays sign up page
	3- System display boxes to input sign up information
4- User fills in the boxes with invalid information	
	5- System finds input information invalid
	6- System displays "Please enter valid information." message
	nicosuge





**Screen Design** 



#### **Data Dictionary:**

Element Label	Type/Length	Data Validation / Business Rule
Name field	Text < 100 Characters	Structured Text
Structured Text	Text < 100 Characters	Valid email format
User Name field	Text < 50 Characters	Unique username
Password field	Alphanumeric < 100 Characters	Password confirmation and must include an uppercase letter, numbers and/or special characters





# **Software Requirements Specifications**

### • User Story #2 - Implement this

User Story ID	US #2
User Story Name	User Login
Actors	User
Description	As a user, I'd like to be able to log in the application So that I can access my account and use its services.
Pre condition	
Post condition	
Acceptance Criteria	Given I'm a user and I'm on the login page, When I enter my username and password and click login, Then the system verifies my credentials and grants me access to my account.

#### **Scenarios**

Actor	System Response
Action	
1- User clicks on login	
	2- System displays login page 3- System displays fields to input username and password





### **Software Requirements Specifications**

4- User fills in the username and password	
fields	
	5- System verifies the user credentials
	6- System grants access and redirects to the user
	dashboard

### **Exceptional Scenario**

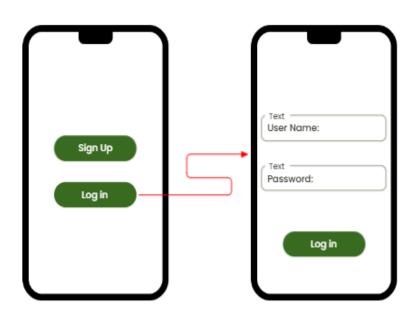
Actor	System Response
Action	
1- User clicks on login	
	2- System displays login page
	3- System displays fields to input username and password
4- User fills in the username and password	
fields with incorrect information	
	5- System finds credentials invalid
	6- System displays "Invalid username or
	password." message





### **Software Requirements Specifications**

### **Screen Design**



### **Data Dictionary**

Element Label	Type/Length	Data Validation / Business Rule
User Name field	Text < 50 Characters	Must match an existing username in the database
Password field	Alphanumeric < 100 Characters	Must match the password associated with the username





### **Software Requirements Specifications**

### • User Story #3 - Implement this

Osci Story #5 implement tins	
User Story ID	US #3
User Story Name	Add Assets
Actors	Investor
Description	As an Investor, I'd like to be able to add new assets to my portfolio So that I can track their performance and manage my investments.
Pre condition	
Post condition	
Acceptance Criteria	Given I'm an investor and I'm on the asset management page, When I select the type of asset (Stocks, Real Estate, Crypto, Gold) and fill in the required details, Then the system adds the asset to my portfolio and updates the asset list.

#### **Scenarios**

Actor	System Response
Action	
1- User clicks on "Add Assets"	
	<ul><li>2- System displays asset types (Stocks, Real Estate, Crypto, Gold)</li><li>3- System displays fields to input asset details</li></ul>





# **Software Requirements Specifications**

4- User selects asset type and fills in details	
	5- System verifies the asset information
	6- System saves asset information in the database and updates the asset list

### **Exceptional Scenario**

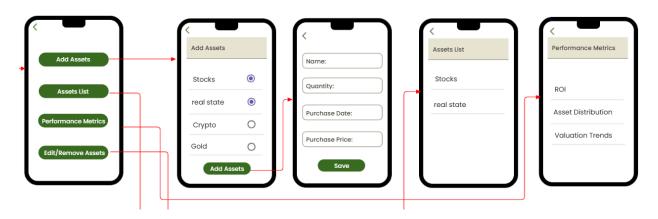
Actor	System Response
Action	
1- User clicks on "Add Assets"	
	2- System displays asset types (Stocks, Real Estate, Crypto, Gold) 3- System displays fields to input asset details
4- User selects asset type but leaves required fields empty	
	5- System finds input information invalid
	6- System displays "Please fill in all required fields." message





# **Software Requirements Specifications**

### **Screen Design**



### **Data Dictionary**

Element Label	Type/Length	Data Validation / Business Rule
Asset Name	Text < 100 Characters	Structured Text
Quantity	Numeric	Must be greater than 0
Purchase Date	Date	Must be a valid date
Purchase Price	Numeric	Must be greater than 0





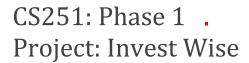
### **Software Requirements Specifications**

### • User Story #4 - Implement This

User Story ID	US #4
User Story Name	Edit/remove Assets
Actors	Investor
Description	As an Investor, I'd like to be able to edit or remove assets from my portfolio So that I can keep my investment information up to date.
Pre condition	
Post condition	
Acceptance Criteria	Given I'm an investor and I'm on the asset management page, When I select an asset to edit or remove and confirm my action, Then the system updates or removes the asset from my portfolio.

#### **Scenarios**

Actor	System Response
Action	
1- User clicks on "Edit/Remove Assets"	
	<ul><li>2- System displays list of assets</li><li>3- System provides options to edit or remove each asset</li></ul>





4- User selects an asset and chooses to edit or	
remove	
	5- System verifies the action
	6- System updates or removes the asset from the database

### **Exceptional Scenario**

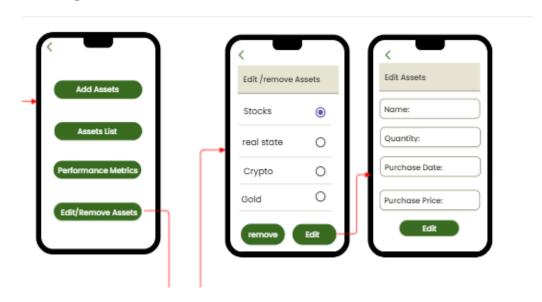
Actor	System Response
Action	
1- User clicks on "Edit/Remove Assets"	
	2- System displays list of assets
	3- System provides options to edit or remove each asset
4- User selects an asset but does not confirm the action	
	5- System finds information invalid
	6- System cancels the action and displays "Action not completed." message





### **Software Requirements Specifications**

### **Screen Design**



### **Data Dictionary**

Element Label	Type/Length	Data Validation / Business Rule
Asset List	List	Must display all assets in the portfolio
Quantity	Button	Must allow editing of asset details
Purchase Date	Button	Must confirm before removing asset





# **Software Requirements Specifications**

#### • User Story #5

User Story #3	
User Story ID	US #5
User Story Name	Add Financial Goals
Actors	User
Description	As a user, I'd like to be able to add new financial goals and view a list of my goals So that I can plan and monitor my financial objectives.
Pre condition	
Post condition	
Acceptance Criteria	Given I'm a user and I'm on the goals management page, When I add a new goal or view the list of goals, Then the system should save the goal or display the list correctly.

#### **Scenarios**

Actor	System Response
Action	
1- User clicks on "Add New Goal"	
	2- System displays goal types (Retirement, Wealth Accumulation)      3- System displays fields to input goal details



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# **Software Requirements Specifications**

4- User selects goal type and fills in details	
	5- System verifies the goal information
	6- System saves goal information in the database and updates the goals list
7- User clicks on "List Goals"	
	8- System retrieves the list of goals from the database
	9- System displays the list of goals

### **Exceptional Scenario**

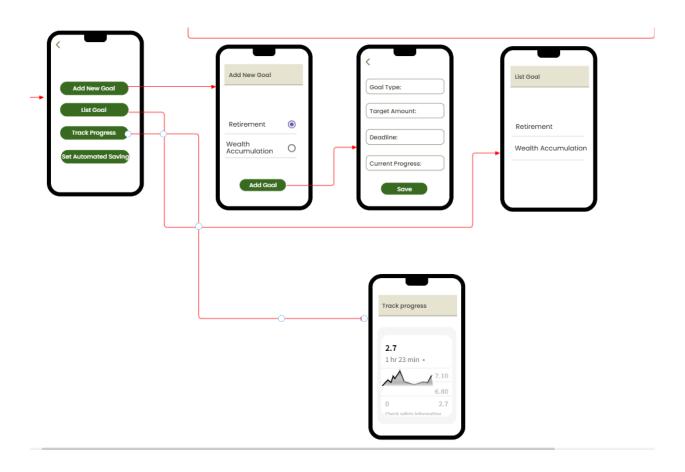
Actor	System Response
Action	
1- User clicks on "Add New Goal"	
	2- System displays goal types (Retirement, Wealth Accumulation)
	3- System displays fields to input goal details
4- User selects goal type but leaves required fields empty	
	5- System finds input information invalid
	6- System displays "Please fill in all required fields." message
7- User clicks on "List Goals"	
	8- System finds no goals saved
	9- System displays "No goals found." message





# **Software Requirements Specifications**

### **Screen Design**







# **Software Requirements Specifications**

Element Label	Type/Length	Data Validation / Business Rule
Goal type	Text < 50 Characters	Must match an existing element in goal list
Target amount	Numeric	Must be greater than 0
Deadline	Date	Must be a valid date
Current Progress	Numeric	Must be greater than or equal to 0
Goal List	List	Must display all saved goals





# **Software Requirements Specifications**

### • User Story #6

User Story ID	US #6
User Story Name	Portfolio Risk Assessment
Actors	Investor (User)
	As an investor
Description	I'd like to assess my portfolio risk level,
	So that I can make informed decisions about asset allocation
Pre condition	The user has an existing portfolio or is creating a new one.
Post condition	The system provides a risk score and visual breakdown of portfolio risks.
	Given I have a portfolio with complete details,
Acceptance Criteria	When I navigate through the risk assessment flow,
	<b>Then</b> I should be able to see my risk score, a graphical breakdown, and suggested mitigation strategies.

#### • Scenarios

Actor Action	System Response
1- User navigates to "Risk & Allocation" and selects "Assess Risk"	2- System displays options: "Risk Score Display", "Graphical Risk Display", and "Risk Mitigation"
3- User selects "Risk Score Display"	4- System shows a risk score gauge
5- User selects "Graphical Risk Display"	6- System shows visual risk breakdown representing risk distribution across assets.







7- User selects "Risk Mitigation"	8- System provides suggested mitigation strategies based on risk assessment.
9- User reviews the strategies and navigates back.	10- System returns to the "Risk & Allocation" screen.

#### **Exceptional Scenario**

Actor Action	System Response
3- User selects "Risk Score Display," but data is incomplete or missing.	4- System shows an error message: "Risk data unavailable. Please ensure portfolio details are complete."
5- User selects "Graphical Risk Display," but the portfolio has insufficient assets.	6- System shows an alert: "Not enough data to generate a graphical risk analysis."

#### Screen Design

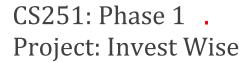






#### • Data Dictionary:

Element Label	Type/Length	Data Validation / Business Rule
Asset Name	text < 100 characters	Required, structured text
Risk Score	Integer (0-100)	Calculated based on portfolio analysis
Risk Level	Text<50 characters	Derived from Risk Score
Graphical Risk Data	Object	Includes visual risk breakdown
Investment Duration	integer (1-50) years	Must be a positive number
Allocation percentage	Float (Slider)	Required, must sum up to 100%



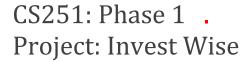


#### • User Story #7

User Story ID	US #7
User Story Name	Asset Allocation Advice
Actors	Investor (User), System
	As an investor,
Description	I want to receive optimized asset allocation recommendations
	<b>So</b> that I can balance risk and return effectively based on my portfolio.
	-The user has completed a risk assessment or provided portfolio
Pre condition	details.
	-The system has access to current allocation data.
	-The system provides a suggested asset allocation strategy and
Post condition	compares it with the current portfolio.
	-The user can choose to apply, modify, or download the recommendations.
	<b>Given</b> The user has a portfolio
Acceptance Criteria	When The user requests Asset Allocation Advice
	<b>Then</b> The system provides suggested allocation and a comparison to the current portfolio

#### Scenarios

Actor Action	System Response
1- User navigates to the "Risk & Allocation"	2- System displays three options: "Assess Risk",
screen.	"Asset Allocation Advice", and "Risk Optimize





	Strategy".
3- User selects "Asset Allocation Advice".	4- System opens the "Asset Allocation Advice" menu, showing: "Recommended Allocation Overview", "Risk vs. Return Insights", and "Portfolio Adjustment Actions".
5- User selects "Recommended Allocation Overview".	6- System displays a pie chart comparing Current vs. Suggested Allocation with ability to update allocation to the suggested one.
7- User selects "Risk vs. Return Insights".	8- System presents a graph comparing risk vs. return across assets with ability to download the report as a pdf.
9- User selects "Portfolio Adjustment Actions".	10- System provides options for modifying portfolio allocation, Asset name, Investment Duration, Removing an asset and the ability to Add a new asset.

#### **Exceptional Scenario**

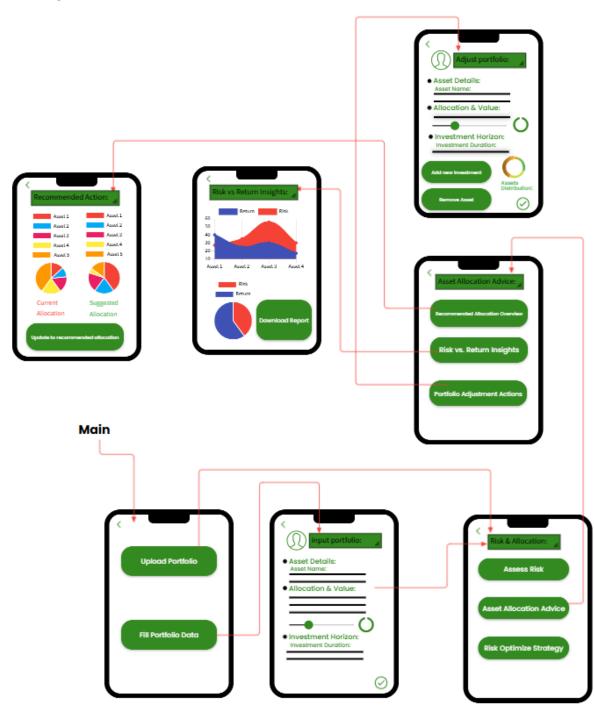
Actor Action	System Response
1- User selects "Asset Allocation Advice" but	2- System redirects the user to the portfolio
has no portfolio data.	input screen.
3- User selects "Fill Portfolio Data" and enters	4- System saves the portfolio and enables
asset details, allocation, and investment	access to Asset Allocation Advice.
horizon.	





# **Software Requirements Specifications**

• Screen Design







# **Software Requirements Specifications**

#### • Data Dictionary:

Element Label	Type/Length	Data Validation / Business Rule
Asset Name	text < 100 characters	Required, structured text
Allocation percentage	Float (Slider)	Required, Must sum up to 100%
Report Download (Button)	Boolean	If file generation fails, the button remains disabled
Investment Duration	integer (1-50) years	Must be a positive number





### • User Story #8 - Implement this

User Story ID	US #8
User Story Name	Zakat Calculation
Actors	Investor
	As an investor,
Description	I'd like to calculate my zakat obligations based on my investments,
	<b>So</b> that I can fulfill my religious obligations.
Pre condition	The user has an investment portfolio with assets eligible for zakat.
Post condition	The system calculates zakat due and displays it to the user.
Acceptance Criteria	Given I have a portfolio,  When I request zakat calculation,  Then the system determines the amount due based on Islamic finance rules and displays the zakat amount per asset.

#### Scenarios

Actor Action	System Response
1- User navigates to "Zakat & Compliance" and selects "Calculate Estimator"	2- System loads zakat calculation form.
3- User enters investment details and press "Calculate"	4- System calculates zakat based on asset type and user investment.





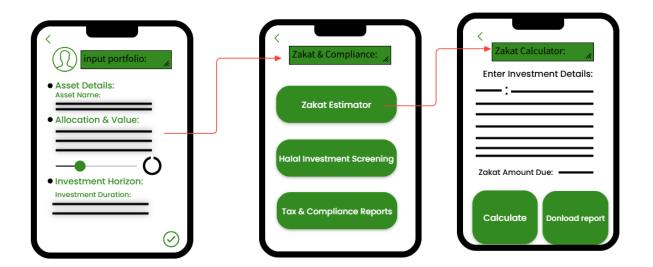
# **Software Requirements Specifications**

5- System displays zakat due amount
7- System Generates a pdf report with the calculations to download

#### **Exceptional Scenario**

Actor Action	System Response
1- User selects "Calculate Zakat" without	2- System prompts user to enter investment
portfolio data	details.

#### Screen Design







# **Software Requirements Specifications**

#### • Data Dictionary:

Element Label	Type/Length	Data Validation / Business Rule
Asset Name	text < 100 characters	Required, structured text
Investment Duration	integer (1-50) years	Must be a positive number
Allocation percentage	Float (Slider)	Must sum up to 100%
Zakat Amount Due	float	Calculated dynamically





# **Software Requirements Specifications**

### • User Story #9

User Story ID	US #9
User Story Name	Halal Investment Screening
Actors	Investor
Description	As an investor,  I'd like to apply Halal investment screening to my portfolio,  So that I can ensure my investments comply with Islamic finance principles.
Pre condition	The user has an investment portfolio with various asset types.
Post condition	The system filters out non-compliant investments and provides screening results.
Acceptance Criteria	Given I have a portfolio,  When I apply Halal investment screening,  Then the system scans my investments and identifies non-Halal assets.

#### Scenarios

Actor Action	System Response
1- User navigates to "Zakat & Compliance" and	2- System loads the Halal Investment





# **Software Requirements Specifications**

selects "Halal Investment Screening"	Screening page.
3- User clicks "Apply Halal Screening"	4- System scans portfolio for non-compliant investments.
	5- System identifies non-Halal assets
	6- System flags and categorizes them and displays a pie chart with percentages of each of the assets.
7- User clicks <b>"View Filtered Portfolio"</b>	8- System displays the portfolio with Halal assets only.
9- User selects <b>"Exclude Non-Halal</b> Investments"	10- System removes flagged assets from portfolio view and gives the option to Update Portfolio and Download it as pdf
11- User clicks <b>"Update Portfolio"</b>	12- System removes flagged assets from the portfolio and updates the asset distribution.
13- User clicks <b>"Download PDF"</b>	14- System generates and downloads a PDF report of the filtered Halal portfolio.

### **Exceptional Scenario**

Actor Action	System Response
1- User selects "Apply Halal Screening" with no	2- System prompts user to enter investment
portfolio data	details.





# **Software Requirements Specifications**

### **Screen Design**



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# **Software Requirements Specifications**

#### • Data Dictionary:

Element Label	Type/Length	Data Validation / Business Rule
Asset Name	text < 100 characters	Required, structured text
Compliance Status	text (Halal/Non-Halal)	Determined based on Islamic filters
Investment Duration	Integer (1-50)	Must be a positive number
Allocation percentage	Float	Must sum up to 100%
Action Taken	text (Flagged/Excluded)	Only displayed for non-compliant assets





### **Software Requirements Specifications**

### • User Story #10 - Implement ONLY ONE of 10, 11 or 12

User Story ID	US #10
<b>User Story Name</b>	Connect & Manage Bank Account
Actors	Investor/User
Description	As a user, I'd like to connect my bank account securely, So that I can manage transactions and investments easily.
Pre condition	<ul><li>The user has an active bank account.</li><li>The bank supports integration with the app</li></ul>
Post condition	The user successfully links their bank account.
Acceptance Criteria	Given I'm on the "Connect Bank Account" page, When I select my bank and enter my card details, And confirm the OTP verification, Then my bank account is successfully linked to the app

#### Scenarios

#### **Normal Scenario**

Actor Action	System Response
1- User clicks "Connect Bank Account".	
	2- System displays bank selection page
3- User selects a bank and clicks "Next"	
	4- System displays card details input form
5- User enters card info and clicks "Add Card"	
	5-System Verifies the existence of the card 6-System requests OTP verification
7-User enters OTP and clicks Confirm	
	8-System verifies and links the account

### **Exceptional Scenario**

Actor Action	System Response
1- User clicks "Connect Bank Account".	
	2- System displays bank selection page
3- User selects a bank and clicks "Next"	

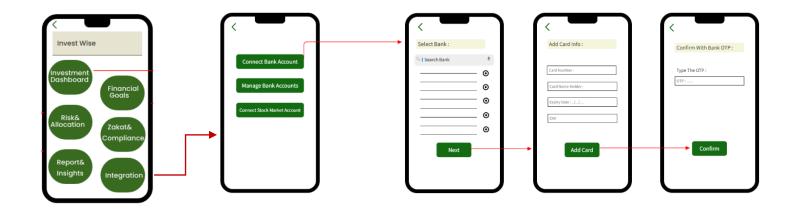




### **Software Requirements Specifications**

5- User enters card info and clicks "Add Card"
6-System Verifies the existence of the card
7-System requests OTP verification
8-User enters OTP and clicks Confirm
9-System verifies
10- System finds out it's an invalid OTP
11-System shows Invalid OTP error

### • Screen Design



### Data Dictionary:

Element Label	Type/Length	Data Validation / Business Rule
Card Number	Integer (16 digits)	Must be a valid credit/debit card number
Card Holder Name	Text < 50 Characters	Structured Text
Expiry Date	MM/YY	Must be a future date





# **Software Requirements Specifications**

Element Label	Type/Length	Data Validation / Business Rule
CVV	Integer (3-4 digits)	Must match bank validation rules
ОТР	Integer (6 digits)	Must match OTP sent by bank





# **Software Requirements Specifications**

### • User Story #11 - Implement ONLY ONE of 10, 11 or 12

User Story ID	US #11	
<b>User Story Name</b>	Connect Stock Market Account	
Actors	Investor/User	
Description	As an investor or user, I'd like to connect my stock market account to the app, So that I can track my portfolio and make transactions easily.	
Pre condition	<ul> <li>User must have an existing stock market account with a supported platform.</li> <li>User must be logged into the application.</li> </ul>	
Post condition	The stock market account is linked successfully, and the user can access stock-related features.	
Acceptance Criteria	Given I am an investor and I'm on the stock market account connection page, When I select my stock platform, enter my credentials, and confirm the connection, Then the system links my account and allows me to view and manage my stocks.	

#### Scenarios

Actor Action	System Response
1- User clicks on Connect Stock Market Account	
	2- System displays a list of stock market platforms.
3- User selects a Platform and clicks "Next"	
	4- System displays Account details input form
5- User enters credentials and clicks "Add Account"	
	6- System verifies the credentials



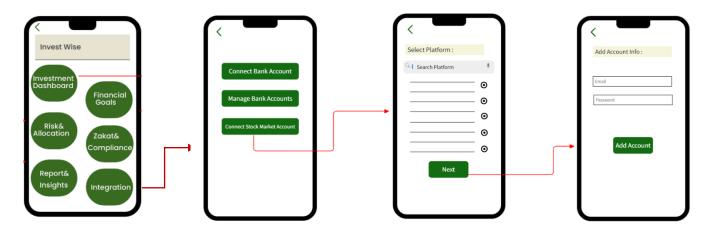


### **Software Requirements Specifications**

### **Exceptional Scenario**

Actor Action	System Response
1- User clicks on Connect Stock Market Account	
	2- System displays a list of stock market platforms.
3- User selects a Platform and clicks "Next"	
5- User enters credentials and clicks "Add Account"	4- System displays Account details input form
	<ul><li>6- System verifies the credentials</li><li>7- System Detects invalid Credentials</li><li>8-User is prompted to re-enter details</li></ul>

### • Screen Design



### Data Dictionary:

Element Label	Type/Length	Data Validation / Business Rule
Email Field	Text < 100 Characters	Structured text, must be a valid email format
Password Field	Alphanumeric < 100 Characters	Must include letters, numbers, and special characters





# **Software Requirements Specifications**

### • User Story #12 - Implement ONLY ONE of 10, 11 or 12

User Story ID	US #12
<b>User Story Name</b>	Generate and Export Financial Reports
Actors	Investor/User
Description	As an investor / user, I'd like to generate financial reports and export them in different formats, So that I can review and analyze my investment data efficiently.
Pre condition	The system must have access to the user's financial data.
Post condition	The user successfully generates and exports the financial report in a selected format (PDF/Excel).
Acceptance Criteria	Given that I am an investor/user, When I request a financial report, Then the system should generate the report and allow me to export it in different formats.

#### Scenarios

Actor Action	System Response
1- User clicks "Get Report"	
	2- System fetches report details and displays them.
3- User clicks "Export Report"	
	4- System provides export options (PDF/Excel)
5- User selects a format (PDF/Excel)	
	6- System saves the report in the chosen format





### **Software Requirements Specifications**

### **Exceptional Scenario**

Actor Action	System Response
1- User clicks "Get Report"	
	2- System fails to fetch data due to a
	connectivity issue
	3- System displays an error message

### **Screen Design**



### **Data Dictionary:**

Element Label	Type/Length	Data Validation / Business Rule
Report Data	Structured Text	System-generated financial data
Export Format	String	Must be either "PDF" or "Excel"

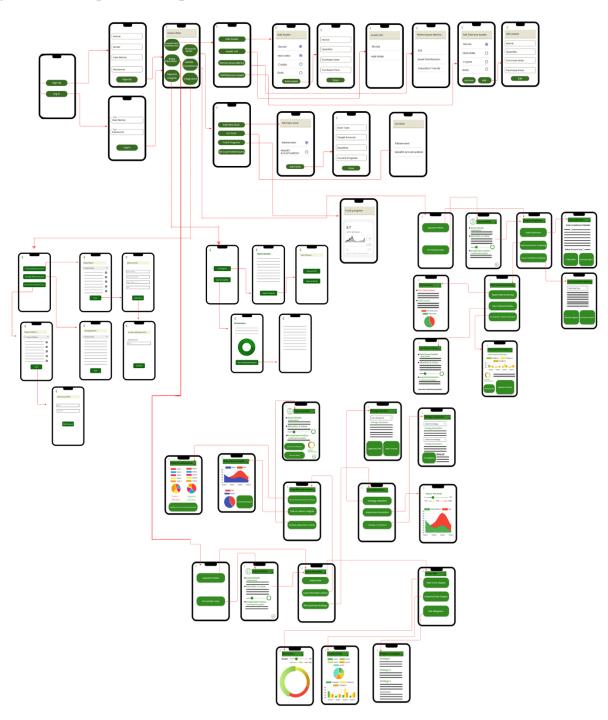
CS251: Phase 1

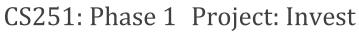
Project: Invest Wise



### **Software Requirements Specifications**

### **System Navigation Map**









### **Tools**

- MockFlow (for System Navigation Map)
- LucidChart (for Use Case Model)

### **Ownership Report**

Student	Items he/she created	
Youssif Ahmed Omar Mohamed	Document Purpose and Audience, Software Purpose, Functional Requirements: FR#2, 3, 9, 15,16 Non Functional Requirements: Performance, Scalability Part of The Use Case Model Part of The System Navigation Map User Stories: 10, 11, 12	
Mo'men Mamdouh Mahmoud	Software Scope, Functional Requirements: FR#5, 6, 7, 13,14 Non Functional Requirements: Maintainabillity, Reliability Part of The Use Case Model Part of The System Navigation Map User Stories: 6,7,8,9	
Yara Mamdouh Abdelhamid	Definitions and acronyms Functional Requirements: FR#1, 4, 8, 11,12 Non Functional Requirements: Portability, Security, Usability Part of The Use Case Model Part of The System Navigation Map User Stories: 1,2,3,4,5	