

# Ethiopian Stock Market Simulation Platform

September 2024



# Background of the Project

## Why the Ethiopian Stock Market Matters:

Context: Ethiopia is establishing its very first formal stock exchange under the Ethiopian Capital Market Authority (ECMA).

Current Gap: Stakeholders—traders, company representatives, and regulators—lack the hands-on experience needed to operate in a modern securities market.

Solution Vision: An interactive, risk-free Stock Market Simulation Platform that mimics real trading environments, helping users build confidence and competence before the actual market launch.

## The Challenges

- Lack of Practical Experience: Investors, brokers, and regulators lack hands-on exposure to stock market dynamics, hindering their ability to navigate the complexities of trading and compliance.
- Knowledge Gap: There is a critical need to understand securities trading, market analysis, and regulatory standards to ensure smooth market operations.

# Introduction Cont...

## The Solution: An Interactive Stock Market Simulation Platform

- This platform provides a risk-free environment for users to learn and practice stock trading strategies without financial risk.

### Tailored Roles:



**Regular Users  
(Investors/Traders)**



**Regulators (System  
Admins)**



**Simulated Listed  
Company Admins:**

# Statement of the Problem

## Why This Matters?

- Potential Risks: Lack of training can lead to mismanagement and low investor confidence, damaging the market's integrity.
- Opportunity Cost: Insufficient expertise may slow economic benefits from the stock exchange.

### Skill Deficiency:

- Many participants lack the necessary skills for effective trading, market analysis, and adherence to compliance standards in real-world scenarios.

### Educational Gap

- Currently, there is no tool that provides practical learning experiences specifically designed for the Ethiopian market.

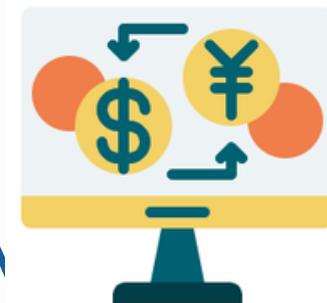
### Regulatory Readiness

- Regulators require a platform to experiment with and refine policies before they are implemented in the actual market.

# Objectives

## General Objective

Develop a user-friendly simulation platform that equips Ethiopian investors, brokers, and regulators with essential stock market skills.



## Specific Objectives

### Engaging Platform Design

- Enable role-based registration for Regular Users, Regulators, and Simulated Listed Company Admins.

### Robust Trading Engine

- Supports various order types: market, limit, and stop orders.
- Provides real-time order matching and execution for a realistic trading experience.

### Regulatory Module

- Allows ECMA to oversee market activities and test the impact of new policies safely.

### Data Analytics Tools

- Offers real-time and historical data to help users analyze trends and make informed decisions.

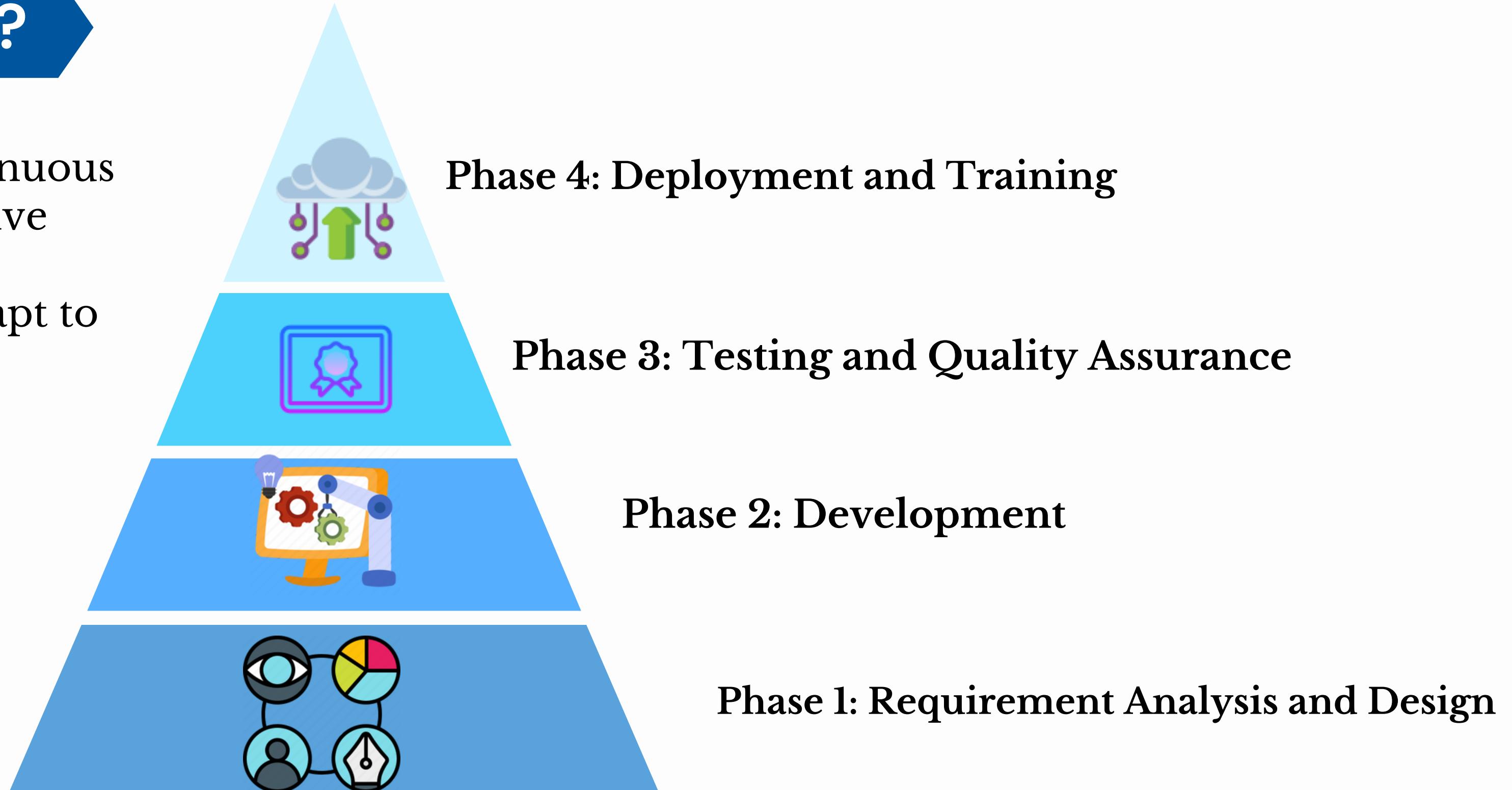
**Profit & Dividend Calculation Module :-** Automates the calculation of capital gains and dividend distribution based on company announcements.

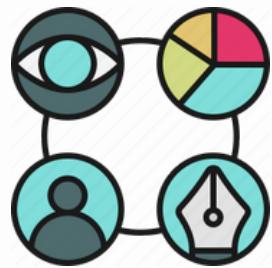
# Methodology

## Our Approach: Agile Development

### Why Agile?

- Facilitates continuous feedback, iterative progress, and flexibility to adapt to changes during development.





## Phase 1: Requirement Analysis and Design

- We analyzed manuals from the ECMA website and other resources.
- Best practices were adapted from similar platforms to fit our needs.
- Developed platform architecture including key components like the trading engine, compliance monitoring tools, and analytics modules.



## Phase 2: Development

- Core Modules:- Created essential modules such as the trading engine, portfolio management, and user management.
- Simulated Systems:- Developed a simulated clearing and settlement system to ensure accurate securities transfer and cash management.

Compliance Tools:- Built tools to enable regulatory oversight of market activities.



## Phase 3: Testing and Quality Assurance

- Comprehensive Testing:- Performed unit, integration, and user acceptance tests to ensure platform reliability.
- Scenario Testing:- Simulated various market conditions to assess platform resilience and functionality.



## Phase 4: Deployment and Training

- Demonstration:- The platform will be demonstrated from our local machines to showcase functionality.
- Training:- Conducted targeted training sessions to help users navigate and utilize the platform effectively.

# Scope and Limitations

## Scope

- Simulates critical stock market functions like trading, order matching, price discovery, compliance, and data analysis.
- Provides role-specific learning experiences for investors, regulators, and company admins.

## Limitation

- Simplification: Initial versions may not fully replicate all real-world market complexities.
- Future Updates: Regular updates will be needed to align with evolving ECMA regulations.
- Educational Features: Some advanced training tools may be added in future iterations.

# Significance of the Project



## Builds Confidence

Offers hands-on learning to help market participants gain experience and skills.



## Enhances Understanding:

Simulates real market conditions to allow users to experience the effects of market movements and policies.

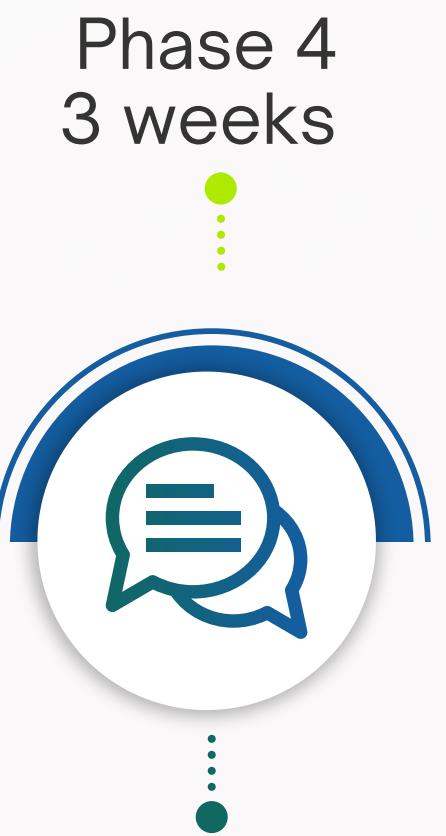
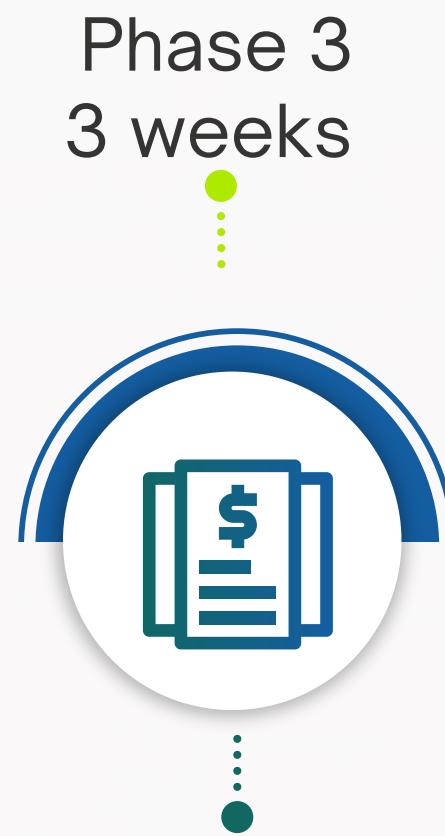
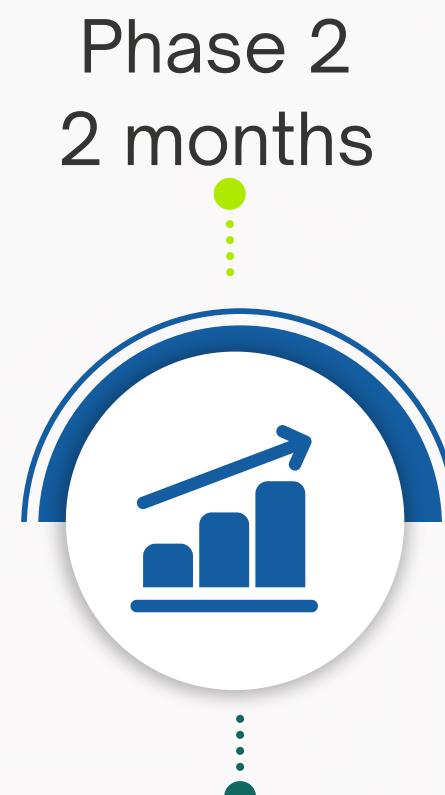


## Supports ECMA

Provides a controlled environment to test regulatory policies before they are implemented in the real market.

# Project Work Plan

The project will be completed in approximately 4 months, with each phase taking the following duration:



# **THANK YOU**

For watching this presentation

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