

## **Documentation for Login/signup page:**

**Use Case Name:** Login/Signup for the user

**Actors:**

- User
- Administrator

**Preconditions:**

- The system is accessible.

**Postconditions:**

- A successful login or Signup.

**Flow of Events:**

**Use Case: Login**

Actor selects the "Login" option.

- System prompts for username and password.

Actor enters valid login credentials.

- System authenticates the user.
- User gains access to the system.

**Alternative Flow: Login Fail**

- If the actor enters invalid login credentials in Step 2:
  - System displays an error message.
  - Actor can retry login or choose the "Forgot Password" option.

**Alternative Flow: Forgot Password**

- If the actor chooses the "Forgot Password" option in Step 2 of "Login":
  - System prompts for email address.
  - Actor enters a valid email address.
  - System sends a password reset link to the provided email.

## **Use Case: Signup**

Actor selects the "Signup" option.

- System prompts for registration details (e.g., name, email, password).

Actor enters valid registration details.

- System creates a new user account.
- Users gain access to the system.

## **Alternative Flow: Signup Failed**

- If the actor encounters an issue during registration in Step 2 of "Signup" (e.g., email already exists):
  - System displays an error message.
  - Actors can retry registration.

## **Exit Condition:**

- User successfully logs in, recovers the password, or registers an account, or they may exit the process at any point by choosing the appropriate option.

# **Documentation for Prediction Feature:**

**Use Case Name:** Stock Prediction

**Actors:**

- User (Registered User & New User)
- Stock API
- System

**Preconditions:**

- User is logged into the system (for registered users).

**Postconditions:**

- The user receives stock predictions for selected companies.
- The user can view trending stocks, filter companies, read/write comments, access their profile, and log out.
- For new users, they can register to become registered users.

**Flow of Events:**

**Use Case: Log in (Managed by System)**

User selects the "Log in" option.

- System prompts for username and password.

User enters valid login credentials.

- System authenticates the user.
- User gains access to the system.

**Use Case: Register (Managed by System)**

New User selects the "Register" option.

- System prompts for registration details (e.g., name, email, password).

New User enters valid registration details.

- System creates a new user account.
- New User becomes a Registered User.

### **Use Case: Stock Prediction**

User selects the "Stock Prediction" option.

- System prompts for selecting a company to predict.

User selects a company to predict.

- System fetches stock data from the Stock API for the selected company.
- System applies prediction algorithms.
- System displays the stock predictions to the user.

### **Use Case: Show Trending Stock**

User selects the "Show Trending Stock" option.

- System fetches trending stock data from the Stock API.
- System displays the trending stocks to the user.

### **Use Case: Filter Companies**

User selects the "Filter Companies" option.

- System allows the user to apply filters (e.g., industry, market cap) to the list of companies.
- System updates the list of companies based on the selected filters.

### **Use Case: Read/Write Comment**

User selects a specific company or prediction.

- System displays comments related to that company or prediction.

User can:

- Read existing comments.
- Write a new comment related to the selected company or prediction.

### **Use Case: Profile (Including Company Details)**

User selects the "Profile" option.

- System displays user profile details and related company information.

### **Use Case: Log Out (Managed by System)**

User selects the "Log Out" option.

- System logs the user out of the system.

**Alternative Flow: Select Company (Stock API)**

- The Stock API receives a request to select a specific company for prediction.
- The Stock API retrieves historical stock data for the selected company.

**Alternative Flow: Filter Companies (Stock API)**

- The Stock API receives a request to filter companies based on user-defined criteria.
- The Stock API provides the filtered list of companies to the system.

**Exit Condition:**

- User successfully interacts with the system to receive stock predictions, view trending stocks, filter companies, read/write comments, access their profile, and log out. New users can also register to become registered users.