IT490 Final Project Documentation

Abstract

The project created by **Team Five** offers users an educational stock market app that helps users understand the concepts of stock market investment. The user can have a real-life portfolio simulating experience with the simulator that enables the user to invest in stocks with their fake money. Thus, learning the theory and practical knowledge of investing in the stock market.The app also offers numerous other features to the user. The app offers education suggestions based on the user's portfolio, graphs to let the user visually interpret the data presented, portfolio evaluation/currency conversion, and current news articles based on the users portfolio.

Primary Setup

1. Download and install VirtualBox
2. Download Ubuntu 18.04 LTS
3. Create and setup a VM in Virtualbox
    a. Select Ubuntu as the operating system.
    b. Use the downloaded Ubuntu virtual disk image.
    c. Make sure to bridge the network adapter to allow network access to the VM.
4. Once setup and on desktop screen: Open the terminal (CTRL + ALT + T //opens new terminal)
    a. **`sudo apt-get update`** - // update list of packages
    b. **`sudo apt-get upgrade`**
    c. **`sudo apt-get install php`**
    d. **`history`** - // able to view all previous commands
    e. **`sudo apt-get install git`**
    f. **`sudo apt-get install gitk`**
    g. **`sudo apt-get install mysql-common`**
    h. **`sudo apt-get install mysql-server`**
    i. **`sudo apt-get install apache2`**
    j. **`sudo apt-get install vim`** - // text editor

RabbitMQ

1. **`sudo apt-get install synaptic`**
2. **`sudo synaptic`**
    a. Search php-ampq

    b. Select and install the php-ampq package
    c. Select and install the php-xml package
    d. Close synaptic
3. Restart apache: **`sudo systemctl restart apache2`**
4. **`sudo apt-get install rabbitmq-server`**
5. **`sudo rabbitmq-plugins enable rabbitmq_management`**
6. Open the Web Browser:
    a. Go to: localhost:15672 - //rabbitmq login page should open
    b. Login:
        i. User: **guest**
        ii. Password: **guest**
    c. Add user:
        i. User: **admin**
        ii. Password: **admin**
        iii. Tags: (click “admin”)
    d. Click “add user”
    e. Click “admin” in the table Permissions: / > Set permissions
    f. Logout and login with the new admin account
    g. Click “Virtual hosts” (on the right-hand side)
    h. Add new virtual host called, “testHost”
    i. Click on “testHost” in the table
        i. Add user
            1. User: admin
        ii. Click “Update”
    j. Click on “Exchanges” and add a new exchange
        i. Name: testExchange
        ii. Type: topic
        iii. Durability: Durable
        iv. Auto delete: No
        v. Internal: No
    k. Click on “Queues” and add a new queue
        i. Select testHost
        ii. Name: testQueue
        iii. Durability: Durable
    l. Click on “Queues”
    m. Bind testQueue and testExchange
        i. From exchange: testExchange
        ii. Routing key: *

Database

1. Login to mysql as root: **`sudo mysql -u root -p`**

2. Create a user named admin:
    a. `CREATE USER ‘admin’@’%’ IDENTIFIED BY ‘password’;`
    b. `GRANT ALL PRIVILEGES ON *.* TO ‘admin@’%’ WITH GRANT OPTION;`
    c. `FLUSH PRIVILEGES;`
    d. `exit` - //to log out.

Proceed to the GitHub page to complete the setup process and begin testing.