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| --- | --- |
| Main Project: | Keyos |
| Project Version: | 1.0 |
| Author: | Orlando Marino, Jace Lecomte |
| Referenced Documents: | list of all other valid documentation, each with title, topic and version |
| Distribution List: | Jace Lecomte, Yousif Kashat, John Hakim, Noel Johny, Orlando Marino |

**Status** (being processed / released): being processed

Information on using the requirement specification:

|  |  |
| --- | --- |
| Help | **Comments** on the individual chapters are shown to help facilitate questions to be asked relative to this section. This aids in thinking through the details and uncovering all requirements. |
| Use | The requirement specification is used for describing requirements for existing software products. |
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| 1. | Authors: | Orlando Marino, Jace Lecomte | Date: | <18.01.19> |

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# Introduction

## Objective (High level Vision in terms of *What?* )

Backgrounds: The goal of the project is to create a website that provides financial insight to users that suggests the most efficient time to buy and sell stocks. The project will use machine learning based on past stock performance to calculate optimal times to buy and sell.

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## Need (High level Vision in terms of *Why?* )

Socio-economic Impact, Business Objects and Gap Analysis: Potential socio-economic impact is the users of this website earn more money than those who do not. Business Objects are the python machine learning algorithms that handle information. Gap Analysis consists of design, creating, and implementing every topic listed in the documentation. Merging each component together will produce the final result.

# Stakeholders

Team Information - Jace LeComte, Noel Johnny, John Hakim, Yousif Kashat, Orlando Marino.

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| **Stakeholder** | **Focus** | **Represented by** |
| Orlando Marino | Full stack development | CIT |
| Noel Johny | Full stack development | CIT |
| Jace LeComte | Documentation and Backend development | CS |
| John Hakim | Full stack development | CS |
| Yousif Kashat | Backend development | CS |

List of relevant stakeholders

# Requirements

* A user is able to make an account used for logging into the website.
* A user is able to log out of their account on the website.
* A user can view current stock prices from a list.
* A user is shown recommendations for buying and selling stocks.
* A user search for stocks and view information regarding that stock price, what company owns it, previous performance, and more.

## Functional Requirements

* + - A user is able to select favorite stocks to show in a favorites bar.
    - A user is able to remove stocks from their favorites.
    - A user is able to add other users as business partners who often buy and sell together.

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## User Interface Requirements

* + Preliminary Design
  + User Effort Estimation

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## Static Design

* + Sequence Diagrams
  + Interface Specification
  + State Diagrams

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## System Architecture and System Design

* + Subsystems / Component / Design Pattern Identification
  + Mapping Subsystems to Hardware (Deployment Diagram)
  + Persistent Data Storage
  + Network Protocol
  + Global Control Flow
  + Hardware Requirement

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## Algorithms and Data Structures

* + Algorithms - 2.2 details the various python extensions and add ons which will be used to generate machine learning algorithms.
  + Data Structures - MySQL will be used to manage the project database.

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# Basic Conditions

## Quantity Structure / Performance/ Testing

* + Unit Test Architecture and Strategy/Framework
  + Unit Test Definition, test data selection
  + System Test Specification
  + Test Reports per Spring

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## User Interface Design and Implementation

* + User Interface Design
  + User Interface Implementation

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# Appendix

## Glossary

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| **Term** | **Meaning** |
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## Risk Assessment

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| A risk disclosure statement is required for the functionality requested: | |
| ( ) Yes | ( ) No |

# Open Issues

List of open issues regarding this requirement. This list must be completed in full before the requirement is accepted.

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| --- | --- | --- | --- |
| **No.** | **Description** | **Status**  **(open/ done)** | **Responsible** |
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