InvestiMapp

Configuration Management Plan

Deliverable 2

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1 INTRODUCTION

Our software project is building a web application, InvestiMapp, from which users can sign in to track real-time progress for their stock market portfolio.

1.1 SOFTWARE CONFIGURATION ITEMS

- Amazon Web Services' Cognito JavaScript SDKs and libraries.
- Stock Market data API (real-time and historical data)

1.2 OTHER SOFTWARE

- Amazon Web Services' CodeStar (Version/Release Control)
- Amazon Web Services' BeanStalk (Application Hosting)

1.3 CONFIGURATION AND PROJECT RELATIONSHIP

This configuration plan details the various software, components, and libraries that will be used in our project. The goal is to control development, codeline and baseline versions and releases.

1.4 CONFIGURATION APPLICATIONS

This Configuration Management Plan's aim is to set a general direction for our application's development. With an informal depth of control, the developers should follow this plan as guidelines for managing versions and releases of the project.

1.5 CONFIGURATION ASSUMPTIONS

This plan assumes a high level of flexibility due to the timeframe of the project, as well as the schedules of those involved. Customer interaction will be limited to Deliverable feedback.

2 CONFIGURATION MANAGEMENT

2.1 ORGANIZATION

- Code pipelines (codeline, baseline, and mainline) are handled by Amazon Web Servcies
- Developers commit code, from which we can test in a closed envrironment. When a new version release is ready, we can release all added changes simultaniously with the click of a button in the CodeStar environment..

2.2 RESPONSIBILITIES

- Product Owner
  - To maintain the list of product features, and mark their progress
  - Part of the development team, but posses more of an overseer’s role
  - In effect for the duration of one sprint.
  - Scope includes the main features being implemented during each sprint.
  - Maintain, share, and advises on product features and implementations
- Scrum Master
  - To keep track of team progress, overseer and handler of each sprint.
  - Part of the project team, manages overhead.
  - In efect for the duration of one sprint.
  - Handles the scrum duties; conducts meetings and promotes teamwork for solving issues.
  - Hold daily scrum meetings
- Developers
  - To develop the application and implement project features.
  - Core of the prject development team.
  - Duration of the entire project
  - Develop features and commit changes.
  - Implement features and maintian the sprint backlog document.

2.3 APPLICABLE POLICES, DIRECTIVES, AND PROCEDURES

- User Data Protection Requirements
- Federal Regulations for the Stock Market

3 CONFIGURATION ACTIVITIES

3.1 CONFIGURATION IDENTIFICATION

- Amazon Web Services’ Cognito
  - User Authentication
    - GetID
    - GetOpenIDToekn
    - CognitoIdentityCredentials
    - Config.credentials.get

3.2 CONFIGURATION CONTROL

- Requesting changes:
  - Create a pull request to the repository linked with Amazon Web Services CodeStar
- Evaluating changes:
  - A developer (differing from the pull request originator) will evaluate the pull request, and upon evaluation, will accept the request into the test environiment.
- Change approval:
  - From the test environment, begin verification and validation processes.
  - If the change is declined, revert to baseline prior to the pull request.
- Implementing changes
  - Once new features have been tested and validated, the development team will collectively decide to release the newest mainline to the public URL of our web app through CodeStar.

3.3 CONFIGURATION STATUS ACCOUNTING

- All software, systems, and components will be tracked through AWS CodeStar, and our GitHub configuration repository.
- All included configuration components will have details noting where, what, and why each configuration item is used.
- Each devleoper will autmoatically have access to control and view the status of all configuration items through CodeStar. Those outside of the development team will be invited to the repository with all relavant documentation.

3.4 CONFIGURATION EVALUATION AND REVIEWS

- Prior to release, all configuration items need to be inspected by 3 individuals. The objective of these inspections is to ensure the addition of configuration items (CI) that benefit the application, progress development, and do not compromise existing systems:
  - Product Owner: Judge the CI based on its effectiveness towards implementing a feature
  - Scrum Master: Judge the CI based on its contributions to reaching a sprint goal
  - Developer: Judge the CI based on its merits to the overall health of the application, and compatibility with the existing system.

3.5 INTERFACE CONTROL

- All configuration items will be heavily tested to ensure no existing items outside of this plan lose functionality.

3.6 VENDOR CONTROL

- Due to the scope and budget of the project, all included items originating from outside the prjoect envirionment will be open source packages, components, APIs, etc.
- Only those that can be worked in to the project in their initial state will be included, and no contact with outside vendors is expected.

3.7 RELEASE MANAGEMENT AND DELIVERY

- Control of build versions is handled through CodeStar. Version pipelines are designated as private or public. Private pipelines include features in development, and features currently being tested.
- Once a private pipeline has been validated and verified for release, no less than three project team members will collectively decide to push the private pipeline for public release through CodeStar’s UI.

4 CONFIGURATION SCHEDULE

4.1 CONFIGURATION ACTIVITIES AND MILESTONE RELATIONSHIP

- Sprint 2: Implented the UI baseline and included SDKs.
- Sprint 3: Completed database schema

5 SOFTWARE CONFIGURATION RESOURCES

- Our central enviroinment is Amazon Web Services; CodeStar. From here we can accesss source code and mainlines. It also allows for real-time updates and releases.
- Individual developers can use whichever IDE they wish, so long as they are capable to pushing to the repository.
- The infrastructure of our application results from AWS pipelines and BeanStalk, which handles everything natively.
    - Functionality maintained through CodeStar
    - Performance and availability handled by AWS servers
    - Security and Safety handled by Cognito Authentication
    - Equipment and Costs are all managed through AWS
- No extraneous equipment is required.

6 CONFIGURATION PLAN MAINTENANCE

- Plan monitoring
  - Handled by entire development team, Product Owner and Scrum Master to take majority of responsibility.
- Updates
  - Should be updated at least once every sprint.
- Update approval
  - Updates should be evaluated by at least 3 members of the team, and aproved based on the health and contributions to the proejct plan.
- Update communication
  - Once an update has been approved, an announcement shall be made during the next scrum meeting, and the update origniator shall make the changes.

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