

EE / CprE / SE 491 – sdmay19-07

Real Estate Portfolio Optimization

Weekly Report 11

Monday, January 28 – Sunday, February 3

Client: Principal

Faculty Advisor: Chinmay Hegde

Team Members

Blake Roberts - Project Manager / Backend
Colton Goode - Meeting Scribe / Backend
Kevin Johnson - Quality Control / Frontend
Leelabari Fulbel - Meeting Facilitator / Frontend
Nickolas Moeller - Report Manager / Backend

Past Week Accomplishments

- Fixed connectivity issues with the frontend and backend - Colton
 - Due to multiple merges and a rework of the backend, the frontend needed to be adjusted to compensate for the changes
 - Moved around functions to make them more reusable in the future
- Created new branch to embed Power BI test report into dash app
 - Got a test report embedded into the dash app using a link generated by the Power BI service. Still looking into how dashboards/reports can be generated dynamically and embedded into the dash app.
- Researched Dash standards and practices - Nick
 - Compiled design practices that will be referenced when creating our data visualizations
 - Reference resource for our software architecture
- Started the look for user input - Leelabari
 - Created “pages” for the two main pieces of user input (file and constraints)
- Added a Dockerfile - Blake
 - Created a Dockerfile so our application can be run on any hardware architecture
- Added loading style during UI callback processing - Blake
 - Before, the only thing that would change is the title of the page which might be hard to notice for application users. The added style makes page element loading obvious.
- Outlined a software architecture for the frontend - Blake
 - We didn't have a standard way to implement new features on our frontend. By outlining what the structure of our application should look like, we can better parallelize our development efforts.

- Added the ability to upload a NCREIF market data file via the Dash app - Blake
- Added the options for added new options for Markets and Property Types - Leelabari
- Added delete buttons - Leelabari

Individual Contributions

Team Member	Contribution	Biweekly Hours	Total Hours
Blake Roberts	Added a Dockerfile to run our application on any platform. Added code to style web app pages while callbacks are processing. Outlined a software architecture for our frontend code. Added the ability to upload a NCREIF market data file via the Dash app.	6	70
Colton Goode	Reviewed code merge requests, reworked how the frontend code interacts with the markowitz calculations on the backend	6	72
Kevin Johnson	Created new branch to embed a test report in dash app	6	68
Leelabari Fulbel	Added the options for choosing constraint. Also worked on deleting constraints	6	63
Nickolas Moeller	Reviewed code, researched Dash standards and practices	6	69

Pending Issues

-

Plans for Coming Week

- Authentication with Power BI via REST API
- Uploading application user portfolios
- Markowitz Constraints UI implementation

