

Team 28: DocuSign Integration

Requirements and Standards

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PROBLEM STATEMENT

BuilderTrend creates construction project management software that is widely used in the development of new homes. Due to the large number of workers involved (i.e contractors, homeowners, and builders), BuilderTrend's software needs a solution to manage contracts between these parties. DocuSign is a third party company that provides infrastructure for securely signing documents, and we are tasked with researching DocuSign, creating extensive usage documentation, and creating a 'proof of concept' web application that utilizes DocuSign for many of BuilderTrends different use cases.

REQUIREMENTS & CONSTRAINTS

- We must avoid the DocuSign API rate limit (**constraint**)
- Our web application must demonstrate the main use cases for DocuSign in BuilderTrend:
 - Homeowner + Contractor signatures
 - Multiple contractor signatures
 - Homeowner + Builder signatures
- Our web application must use modern Javascript frameworks
- Our application must be encrypted and secure when dealing with contracts (**constraint**)
- Thorough documentation about DocuSign's API + use cases
- Our documentation must be organized and readily accessible to BuilderTrend developers
- There must not be significant delay when sending documents in our web app
- Our application must be developed using Agile methodologies

ENGINEERING STANDARDS

- IEEE-29119: We will write Unit Tests for our web application to ensure functionality in each separate piece
- IEEE-12207: We will follow the standard software lifecycle process
- IEEE-7.8: Code of ethics: We will follow ethical development practices
- IEEE-1363: Encryption. We will follow standard hashing and encryption policies to store user data, namely passwords and logins.

INTENDED USERS AND USES

Our project has two distinct parts, each of which has different use cases. First, we are creating a web application to demo DocuSign integration as a proof of concept. This is useful for management and other stakeholders (such as product owners) who are concerned with how the final product fits into BuilderTrend's business model and goals. This will allow them to envision a more complete integration with BuilderTrend's existing applications. Next, we will create extensive documentation about DocuSign's API as it relates to BuilderTrend's use cases. Developers and other individual contributors will reference our work in the future as they work more closely with BuilderTrend's apps.