

**MICHIGAN STATE**  

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**UNIVERSITY**

# Project Plan Presentation

## Universal Guided Web Editor

### The Capstone Experience

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*From Students...  
...to Professionals*

# Project Sponsor Overview

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- Subsidiary of Delta Dental
- Deliver simple, smart automation for business
- Allows to focus on growth
- Business Rule Management System (BRMS)
- Create intuitive, non-technical online rule editor
- Develop, test, deploy, and maintain business logic



# Project Functional Specifications

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- Allow users to edit business models without external software
- Precise editing, mitigating potential mistakes
- Create specific and complex business rules without other technical team members
- Minimal learning curve; Easily navigable



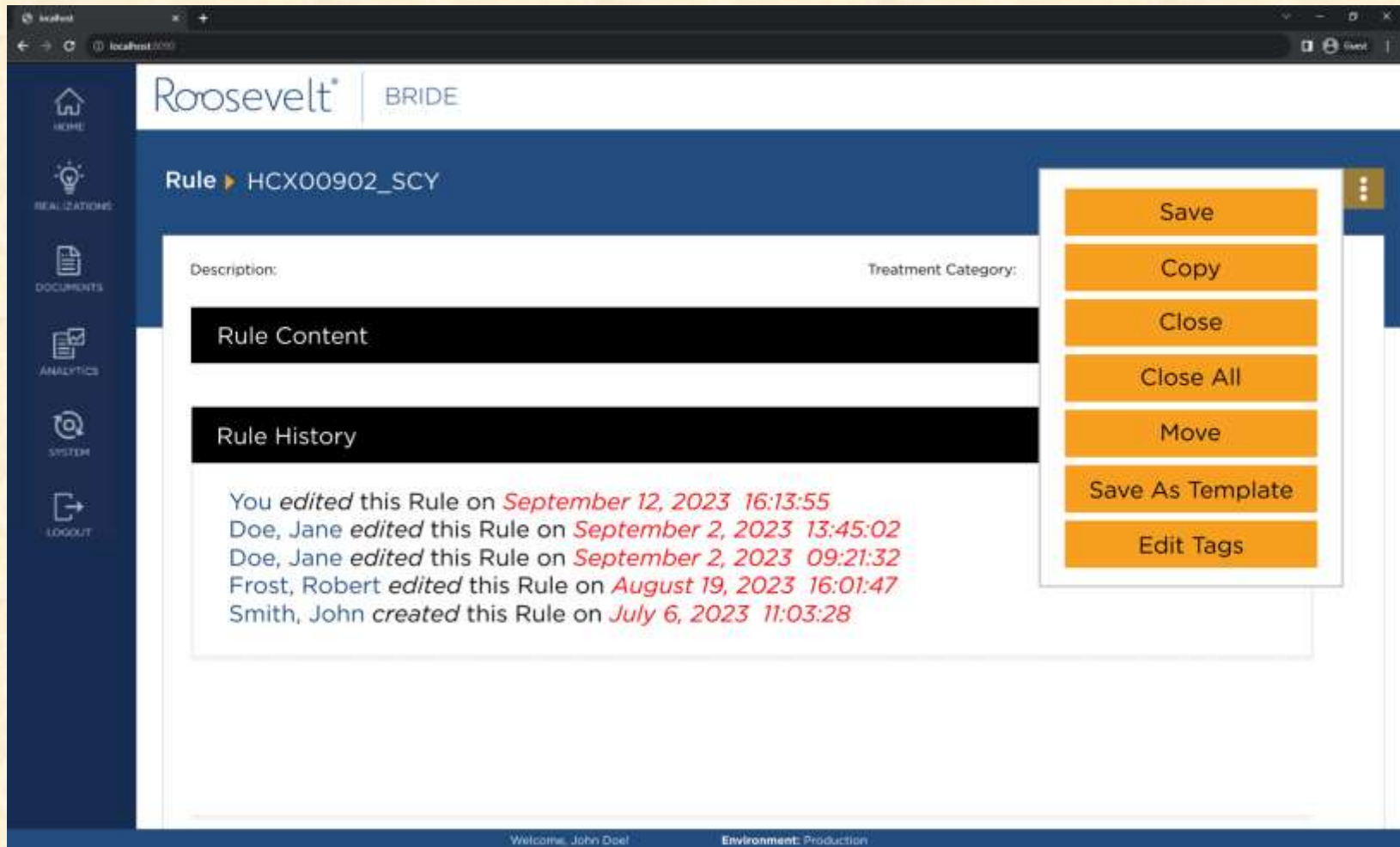
# Project Design Specifications

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- Select Business Rule template
- Be presented with blank rule
- Fill the rule with desired constraints
- Save the business rule



# Screen Mockup: Business Rule Options



# Screen Mockup: Creating Rule

localhost

localhost

Roosevelt® BRIDE

Rule ▶ HCX00902\_SCY

Rule Management

Description: Treatment Category:

### Rule Content

#### Definitions

```
set Eligibility Reinstatement to a Biller Subscriber Adjustment
  where [not] Adjustment Reason OF this Billing Subscriber Agreement is : ELIGIBILITY_REINSTATE
  +
```

**If**

```
[not] : Adjusted Billing Cycle OF Eligibility Reinstatement is Adjusted Billing Cycle OF
```

**Then**

```
: Set Adjustment Reason OF Coverage Type Change TO : ELIGIBILITY_REINSTATE
: Set Coverage Type of Eligibility Reinstatement TO : Adjusted Coverage Type OF Coverage Type Change
: Record Rule Name
+
```

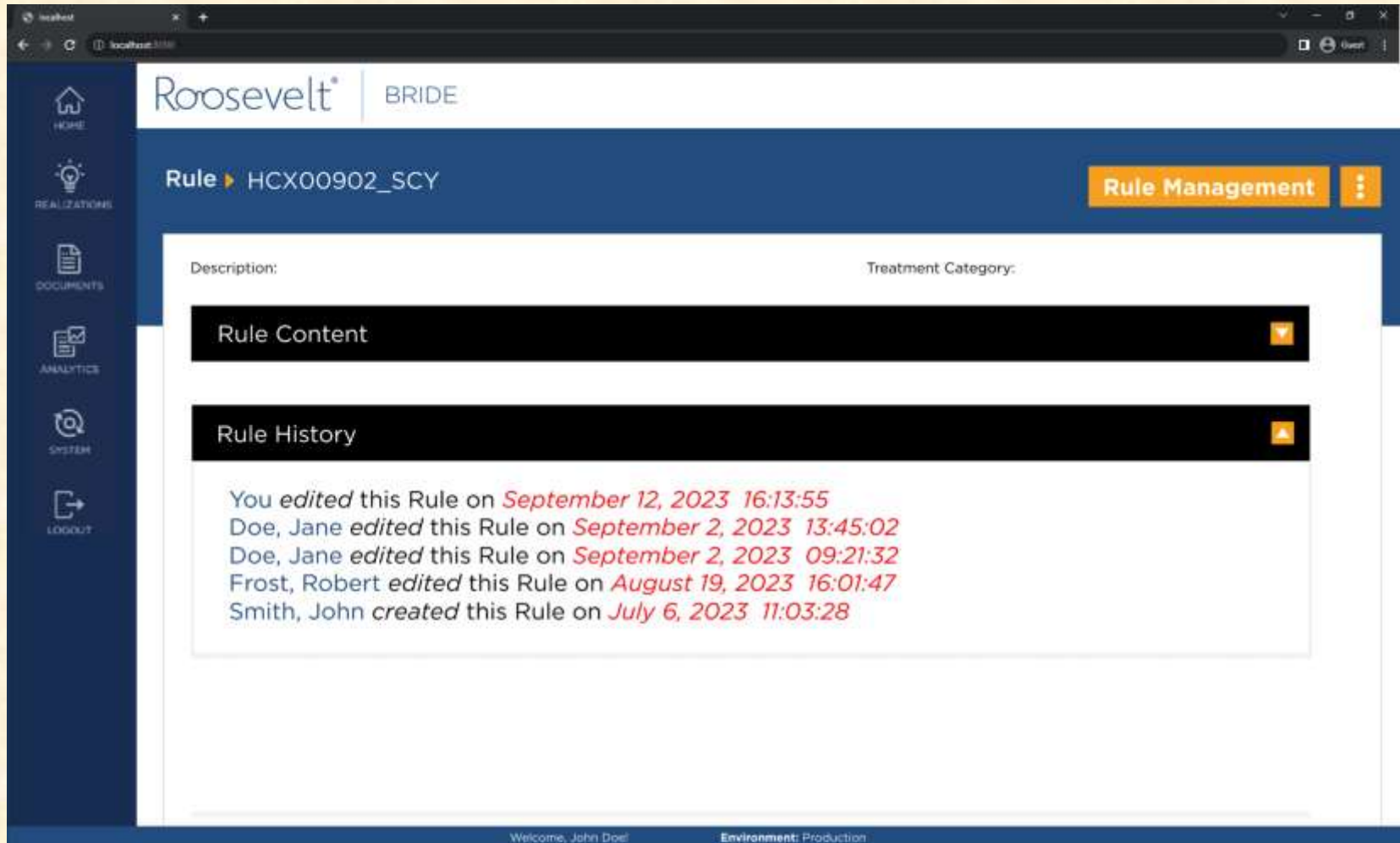
<select variable>  
Coverage Type Change  
Billing Type Change  
Coverage Exception

### Rule History

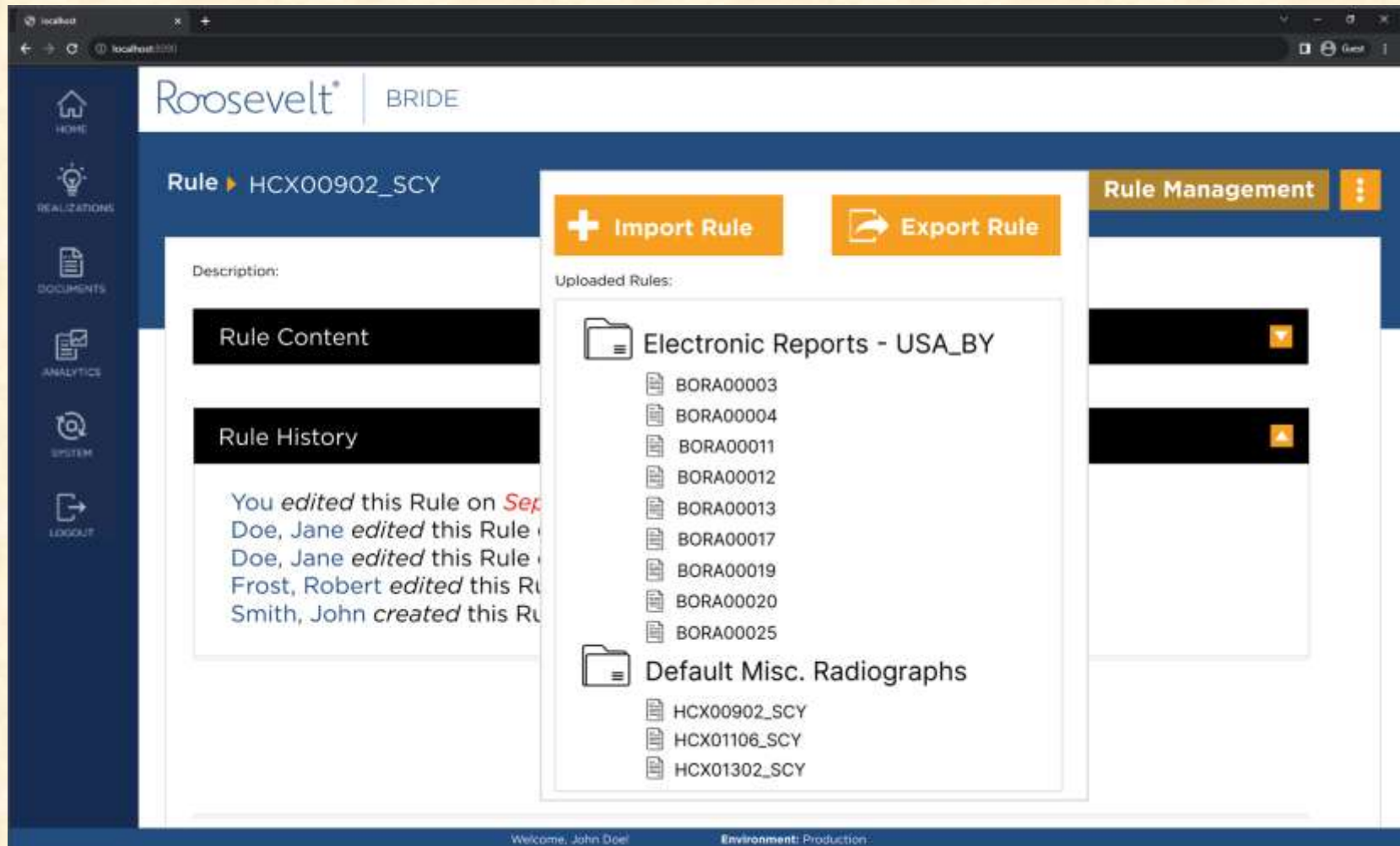
Welcome, John Doel Environment: Production



# Screen Mockup: Viewing Rule History



# Screen Mockup: Selecting Rule





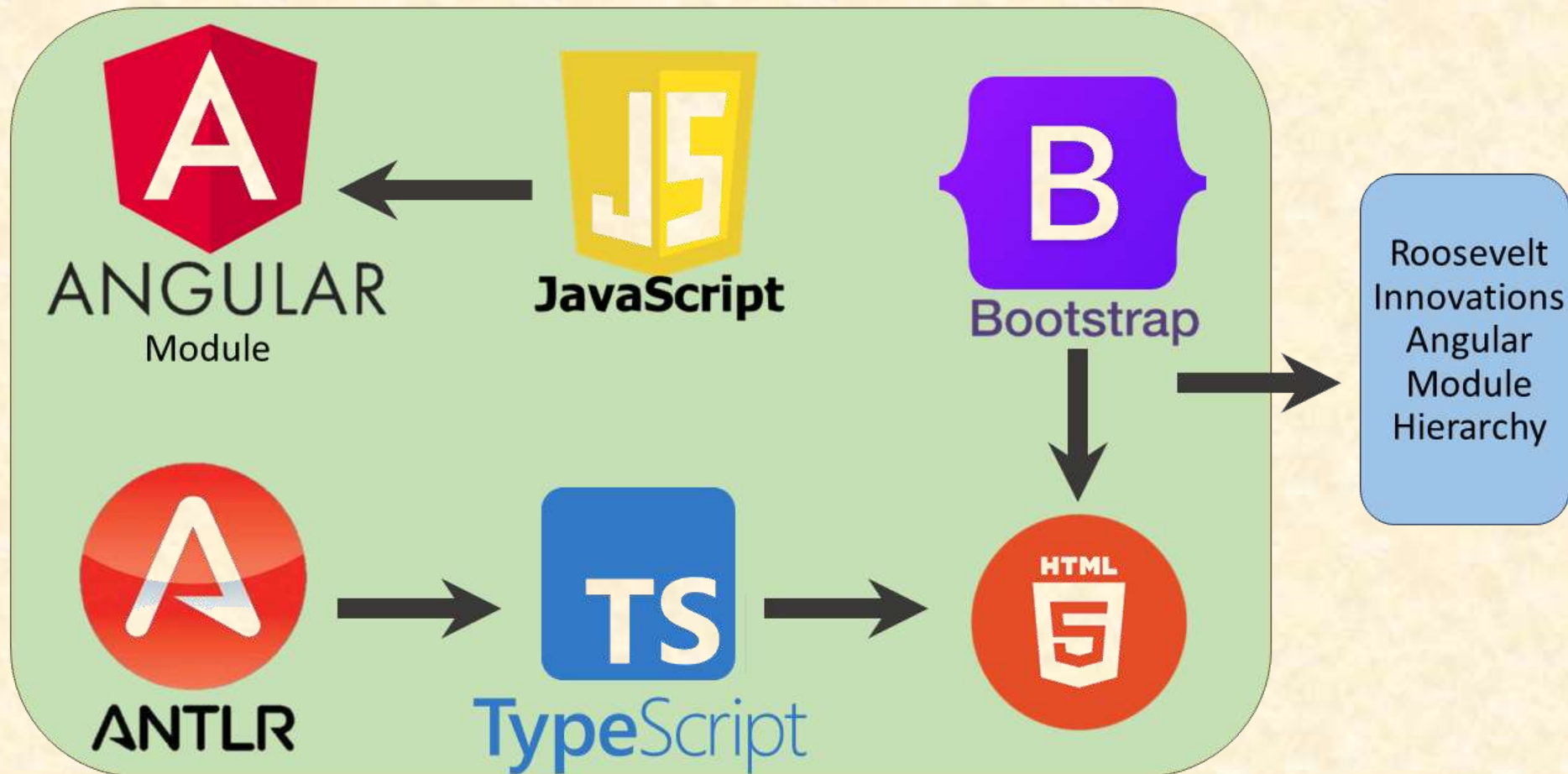
# Project Technical Specifications

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- Angular
- ANTLR
- Bootstrap
- TypeScript
- JavaScript
- HTML



# Project System Architecture



# Project System Components

- Hardware Platforms
  - MySQL
- Software Platforms / Technologies
  - ANTLR
  - Angular
  - Bootstrap
  - JavaScript
  - HTML
  - TypeScript



# Project Risks

- Integration to existing Roosevelt web
  - Maintain consistent UI/UX for a seamless integration
  - Use correct version of Bootstrap; follow UI guidelines
- Adjustment to different input format
  - The editor needs to handle many different business rules
  - Communicate with client to resolve all inputs/syntaxes
- Computationally intensive operation in development
  - No backend; Will parse everything in the browser
  - Test heavy parsing for performance
- Create a modular solution
  - Client will integrate editor into existing website
  - Prioritize reusability when designing components



# Questions?

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