



Project Plan Presentation

Backstage's Back Alright

The Capstone Experience

Team Kohl's

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

Project Sponsor Overview

- Kohl's is one of the largest department store chains in America
- Over 30% of Kohl's sales are from online sales, tallying up to roughly \$1 billion quarterly
- Online sales are made from webpage and mobile apps



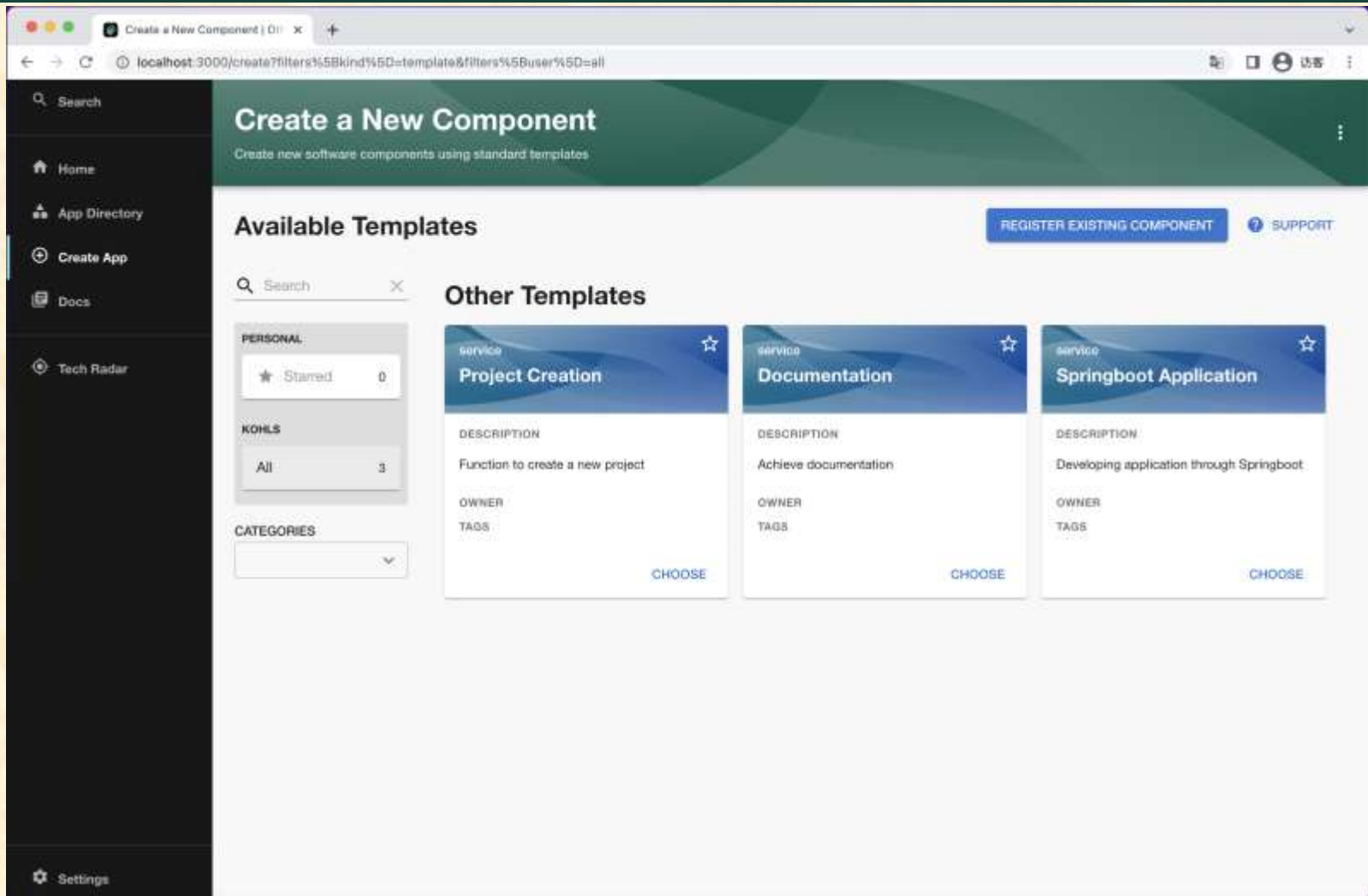
Project Functional Specifications

- Developers often struggle with the deployment, development, maintenance and testing of software. A new way of managing these issues is with developer portals.
- Companies like Kohl's run and maintain a large amount of custom software, by using developer portals, developers can easily deploy complex software and projects. Kohl's has developed their own developer portal called "Ensemble".
- The two major parts of this project are solving an underlying inefficiency in the current Ensemble platform and extending the functionality.
- The Ensemble platform is functionally broken into two separate applications on different platforms, by merging these two applications together, we intend to save a lot of time for developers to deploy software.

Project Design Specifications

- Create App Page
 - User will populate a template that will create a project, a documentation page, or a Spring Boot app
- App Directory Page
 - Displays a catalog of the developer's current applications and their details

Screen Mockup: Create App Page



Screen Mockup: Product Creation Page

Create a New Component | 5:00 X

localhost:3000/create/templates/default/dogimageapi

Search

Home

App Directory

Create App

Docs

Tech Radar

Settings

Create a New Component

Create new software components using standard templates.

Product Creation

1 Enter Product Environment Information

Name of the product to create*

Display name of the Product

Description*

Description of the product. Values up to 100 characters are valid.

OpenShift Cluster Type*

Shared Cluster

What OpenShift clusters should your deployments target? Shared Cluster or Connected Customer Experience Cluster (CCE)? If your application is not subject to low latency requirements of CCE you should choose Shared Cluster.

Is your application Payment Card Industry (PCI) or Personal Identifying Information (PII) scoped?*

No

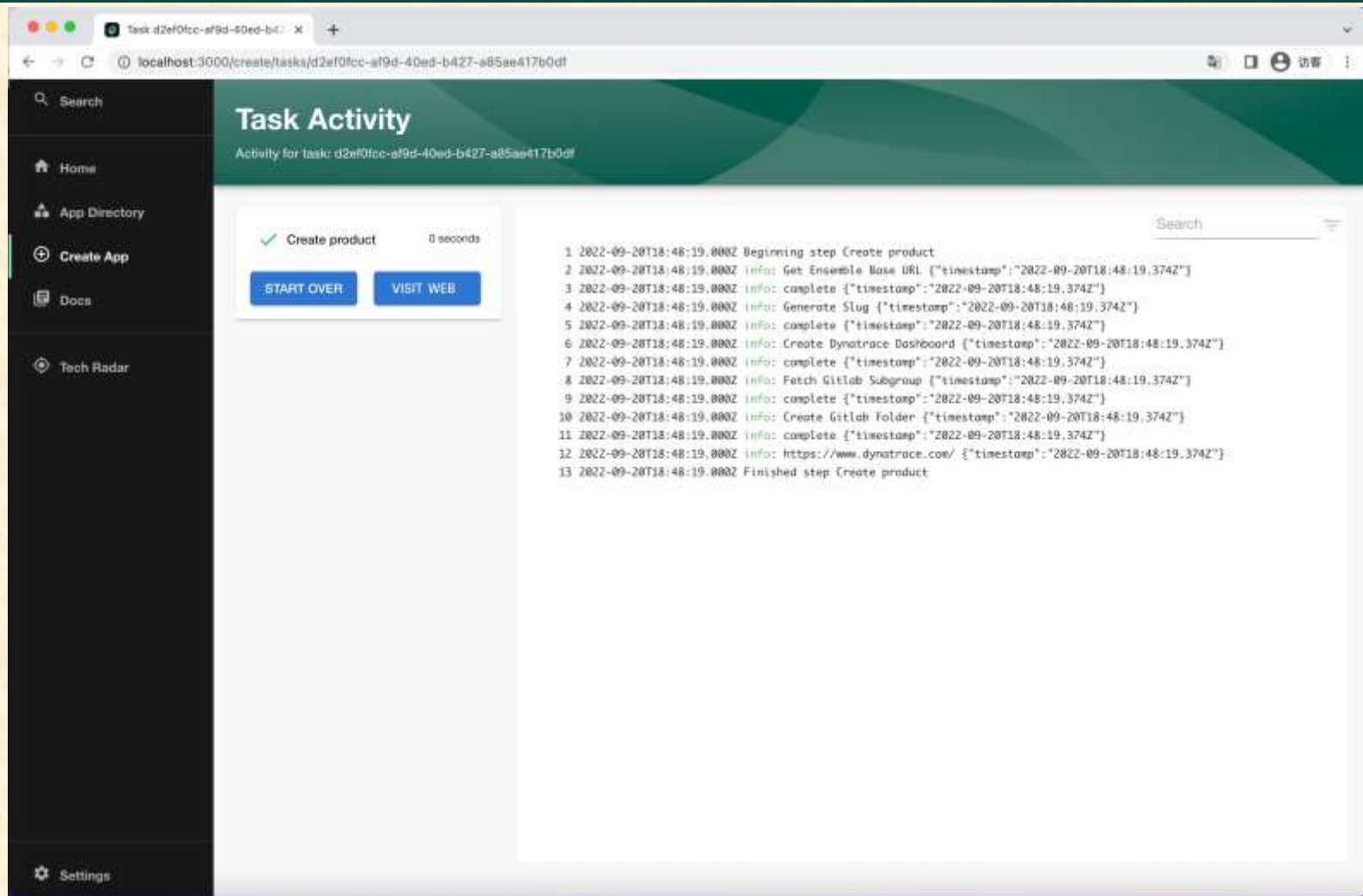
Is your application PCI or PII scoped? Defaults to "No". This is used to determine the type of openshift node on which your application will run.

Team role for access to product resources*

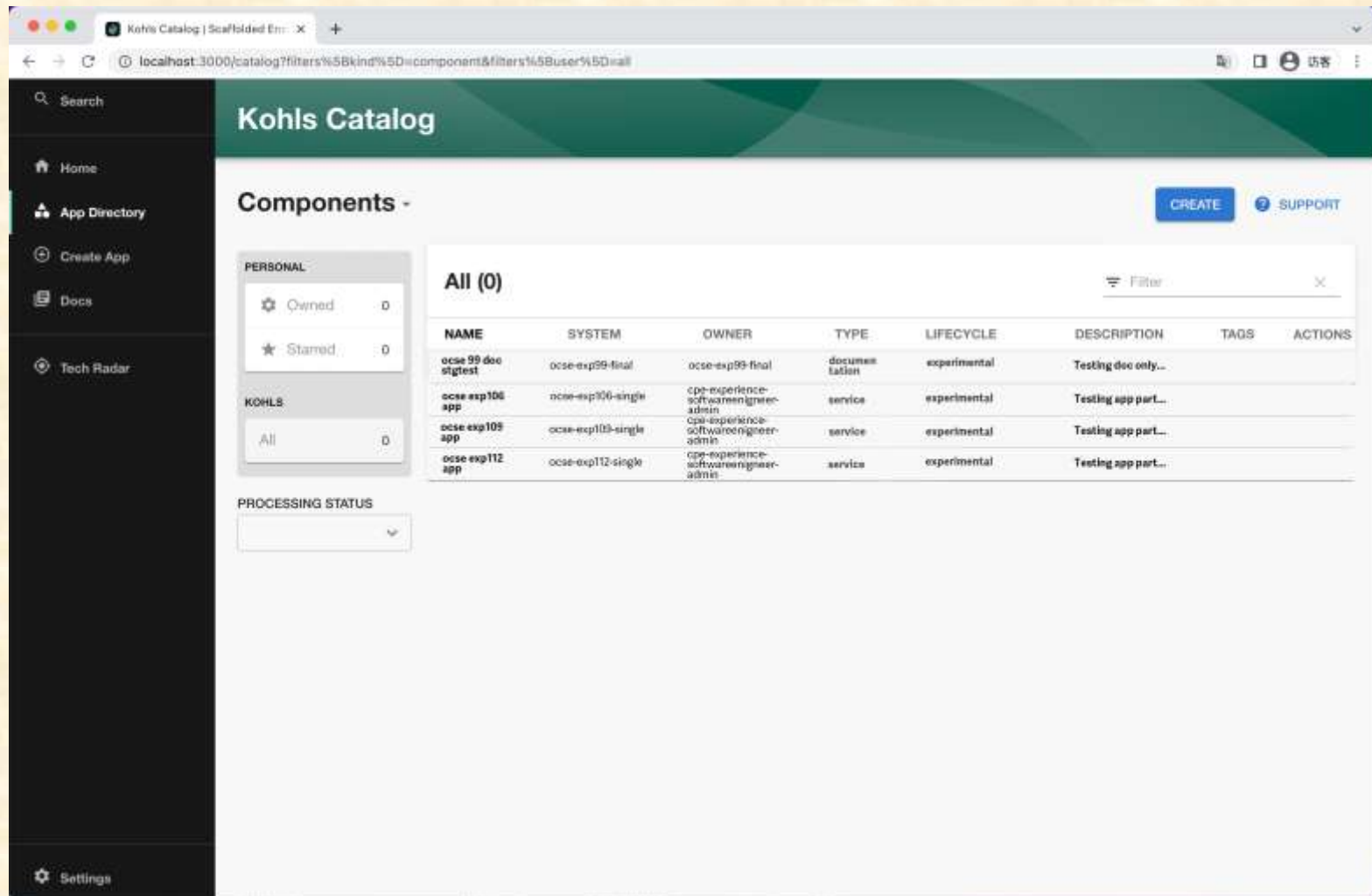
Team role for access to product resources. Must include an "OpenShift" access profile. Values up to 100 characters are valid.

BACK NEXT STEP

Screen Mockup: Task Activity Page



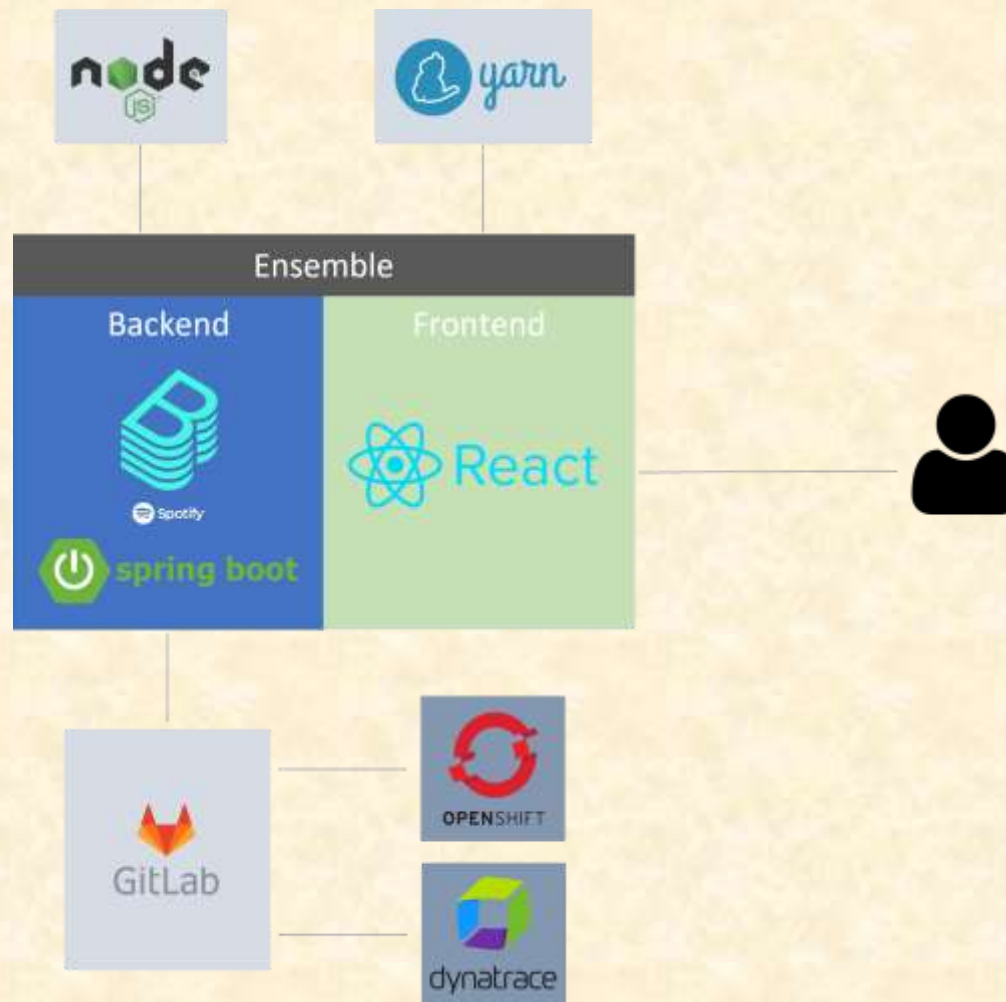
Screen Mockup: App Directory Page



Project Technical Specifications

- Ensemble web application
 - Backend
 - Uses both Backstage and Spring Boot
 - Frontend
 - Uses React
 - Run with Node.js and Yarn
- GitLab
 - Employs both Dynatrace and OpenShift

Project System Architecture



Project System Components

- Hardware Platforms
 - None
- Software Platforms / Technologies
 - React
 - TypeScript
 - Node.js
 - Yarn
 - Visual Studio Code
 - Backstage
 - GitLab
 - Dynatrace
 - OpenShift

Project Risks

- Risk 1 - Local Testing
 - Description - Testing code without access to Kohl's internal network
 - Mitigation - Work closely with the Kohl's engineers to develop methods for local testing
- Risk 2 - Security
 - Description - Each API used must be secured with authentication
 - Mitigation – Research how to utilize libraries in the Ensemble backend to limit access for particular users and add encryption to all sensitive data
- Risk 3 – Dynatrace Dashboard Connection
 - Description – Building the connection between the Ensemble dashboard and Dynatrace dashboard
 - Mitigation – Research the process behind linking Dynatrace to Backstage, and discuss non-trivial modifications Kohl's team previously made to get the connection working correctly

Questions?

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