

**MICHIGAN STATE**  

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**UNIVERSITY**

# Alpha Presentation

## Infinity Gauntlet

### The Capstone Experience

Team Kohl's

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Fall 2023



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

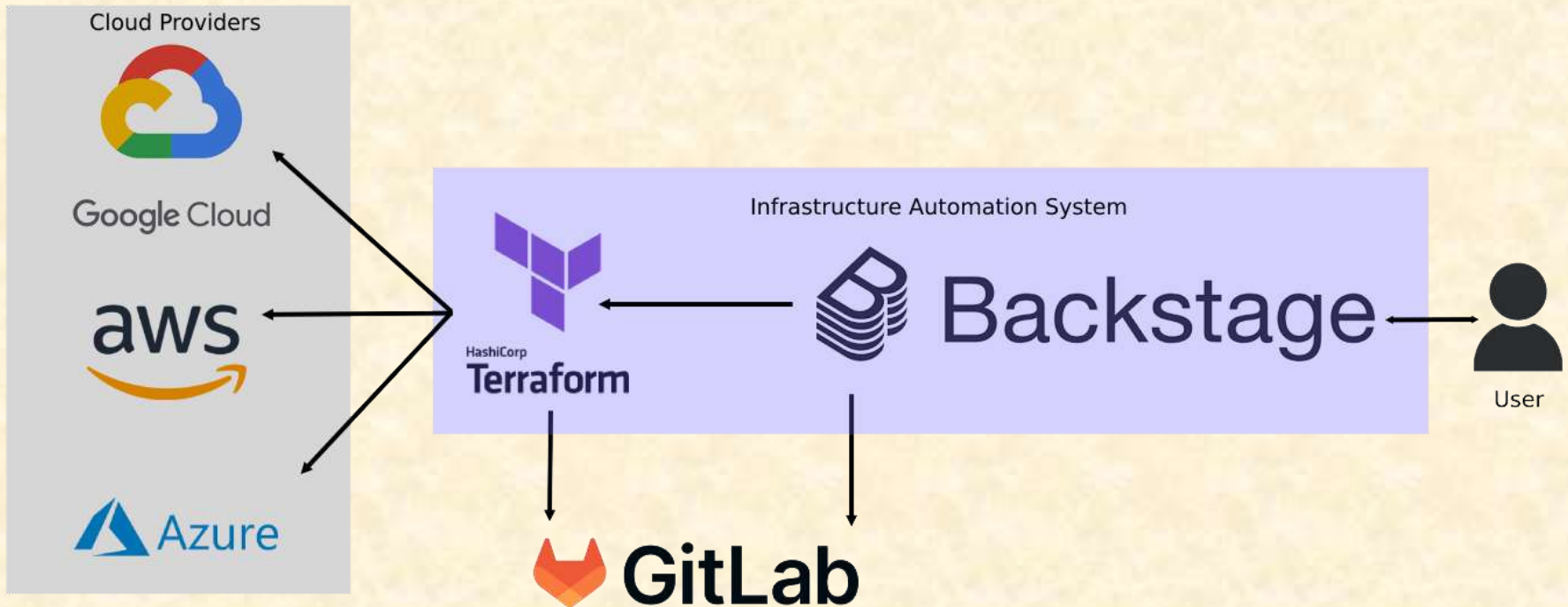
# Project Overview

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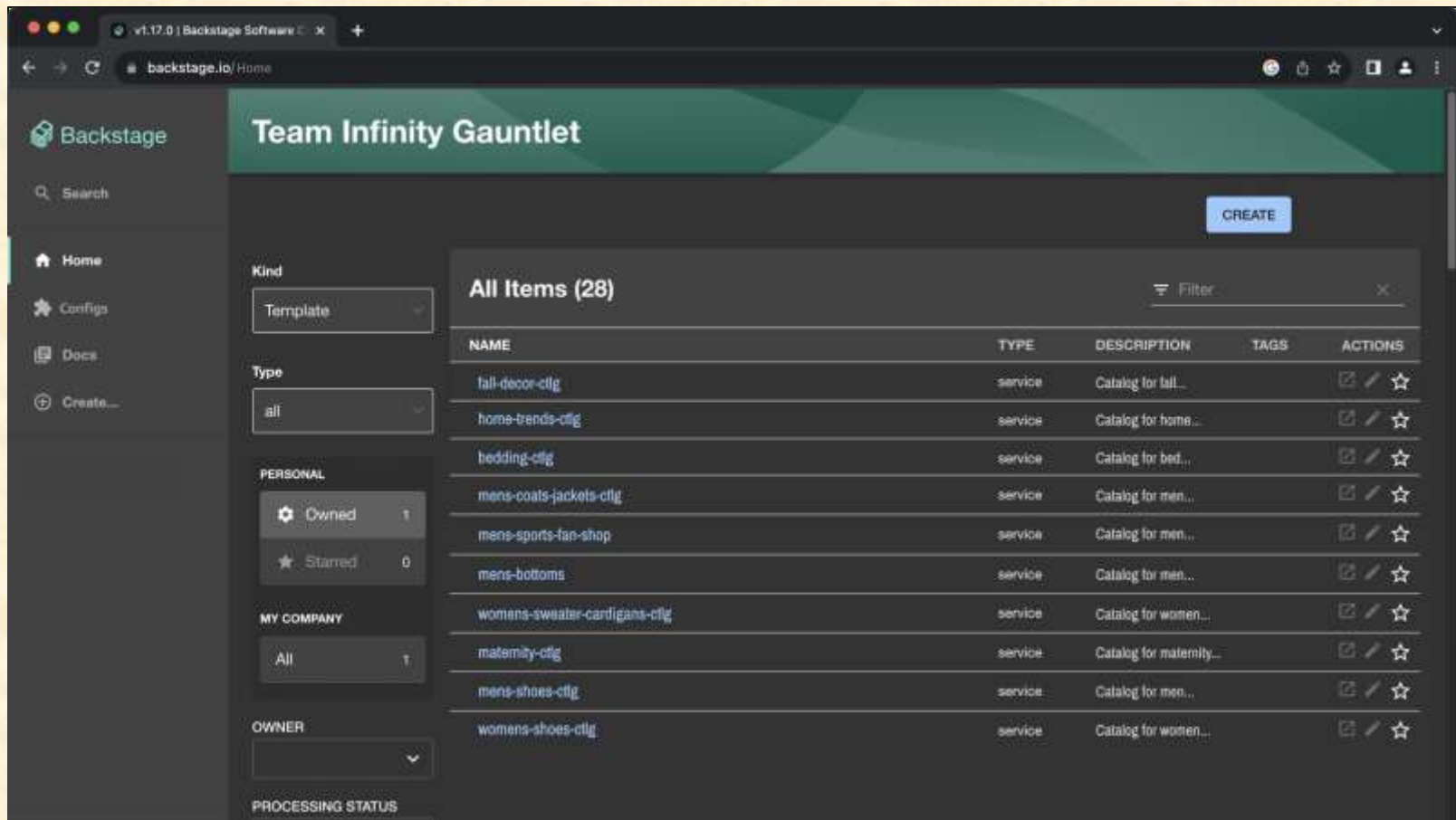
- Kohl's does lots of development
- Managing cloud service providers is hard
  - Amazon Web Services
  - Google Cloud Platform
- The Infinity Gauntlet aims to streamline this
- Creating one platform
- Devs can spin up server with as few clicks as possible



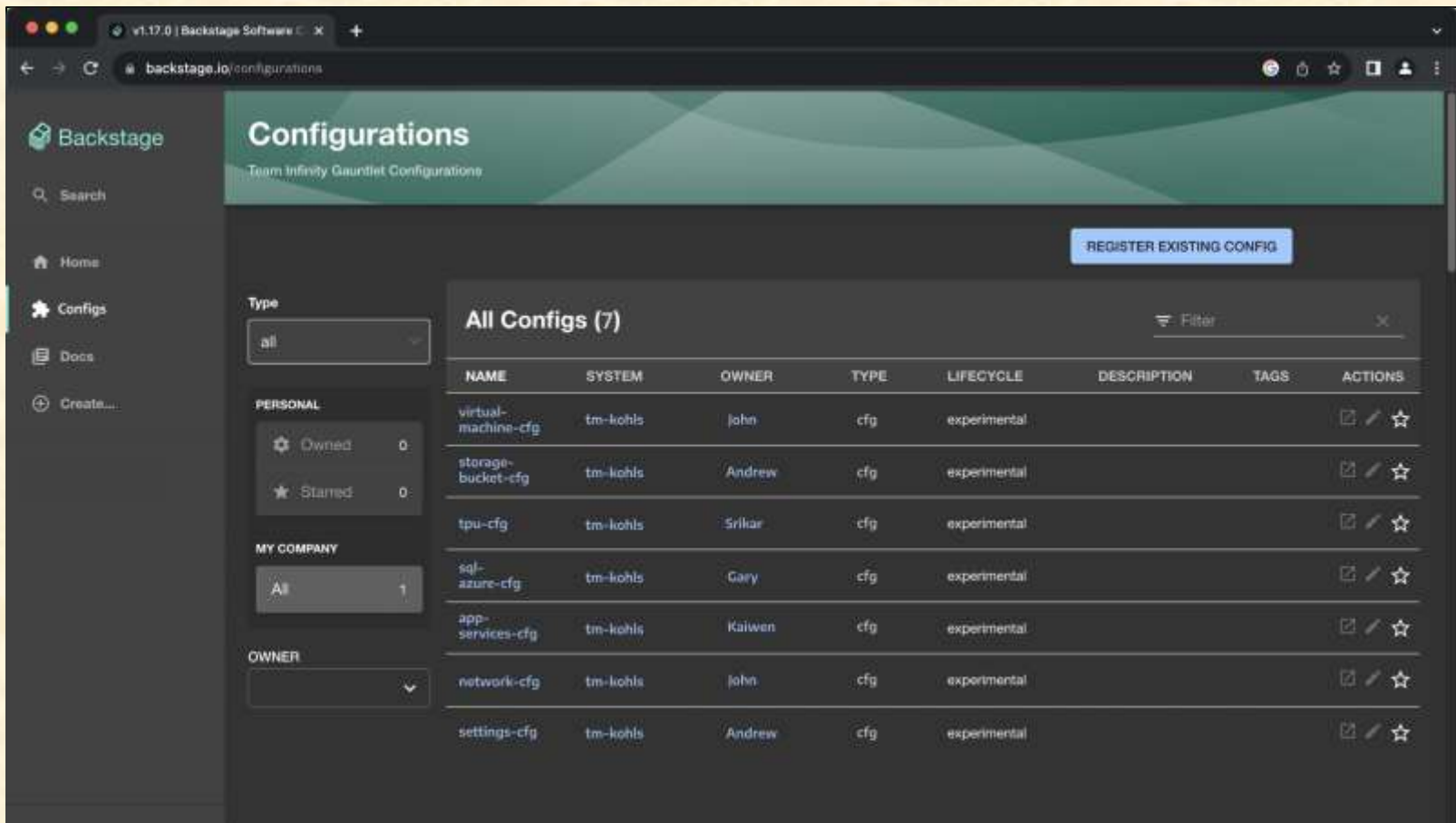
# System Architecture



# Home Screen



# Config Selection Screen

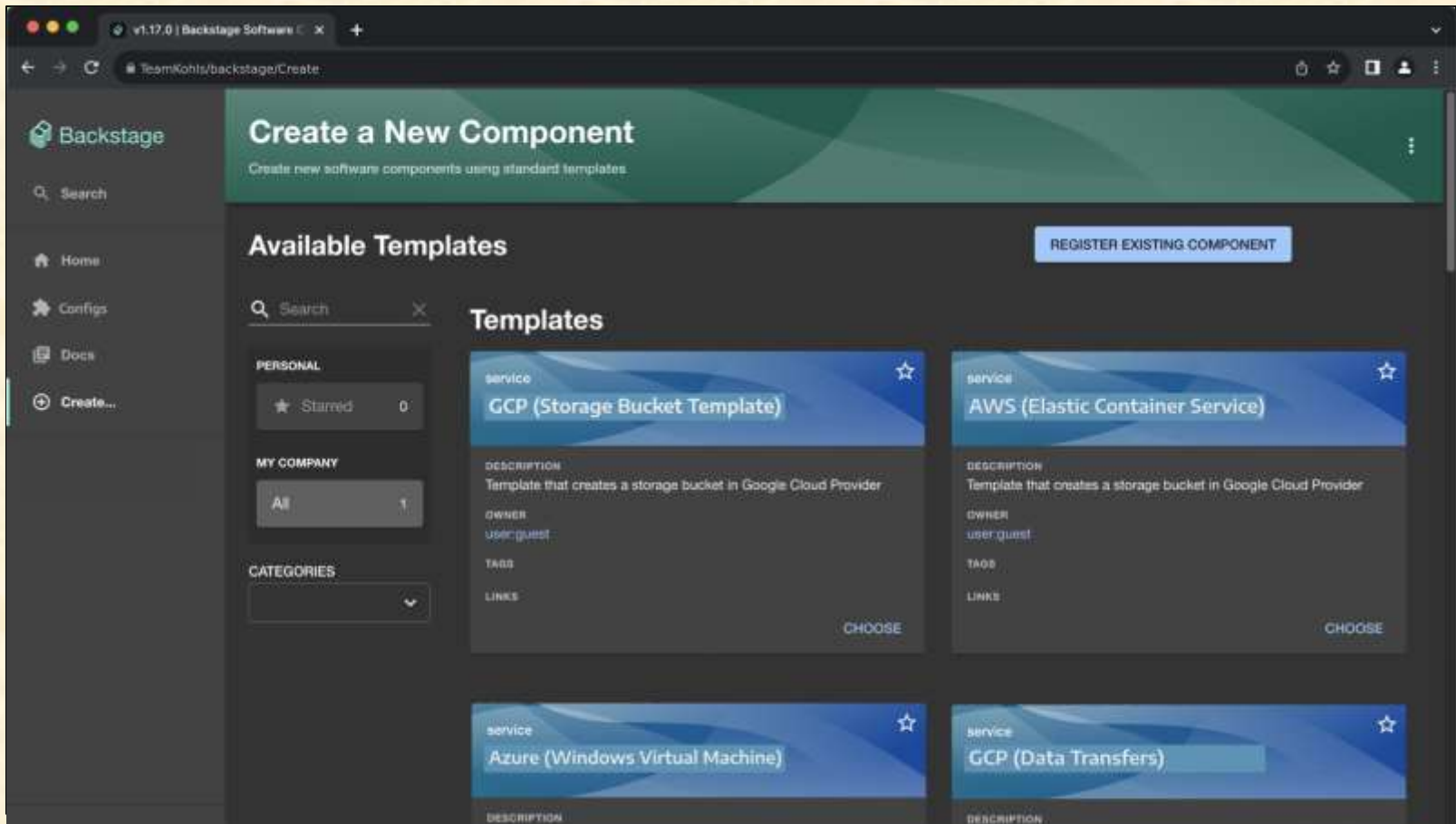


The screenshot displays the Backstage Configurations page. The page title is "Configurations" with the subtitle "Team Infinity Gauntlet Configurations". A "REGISTER EXISTING CONFIG" button is visible in the top right. The left sidebar contains navigation options: Search, Home, Configs, Docs, and Create... The main content area shows a list of configurations under the heading "All Configs (7)". The list is filtered by "Type" (all) and "OWNER" (All). The configurations are listed in a table with columns: NAME, SYSTEM, OWNER, TYPE, LIFECYCLE, DESCRIPTION, TAGS, and ACTIONS.

| NAME                | SYSTEM   | OWNER  | TYPE | LIFECYCLE    | DESCRIPTION | TAGS | ACTIONS              |
|---------------------|----------|--------|------|--------------|-------------|------|----------------------|
| virtual-machine-cfg | tm-kohls | John   | cfg  | experimental |             |      | [Icon] [Icon] [Icon] |
| storage-bucket-cfg  | tm-kohls | Andrew | cfg  | experimental |             |      | [Icon] [Icon] [Icon] |
| tpu-cfg             | tm-kohls | Srikar | cfg  | experimental |             |      | [Icon] [Icon] [Icon] |
| sql-azure-cfg       | tm-kohls | Gary   | cfg  | experimental |             |      | [Icon] [Icon] [Icon] |
| app-services-cfg    | tm-kohls | Kaiwen | cfg  | experimental |             |      | [Icon] [Icon] [Icon] |
| network-cfg         | tm-kohls | John   | cfg  | experimental |             |      | [Icon] [Icon] [Icon] |
| settings-cfg        | tm-kohls | Andrew | cfg  | experimental |             |      | [Icon] [Icon] [Icon] |

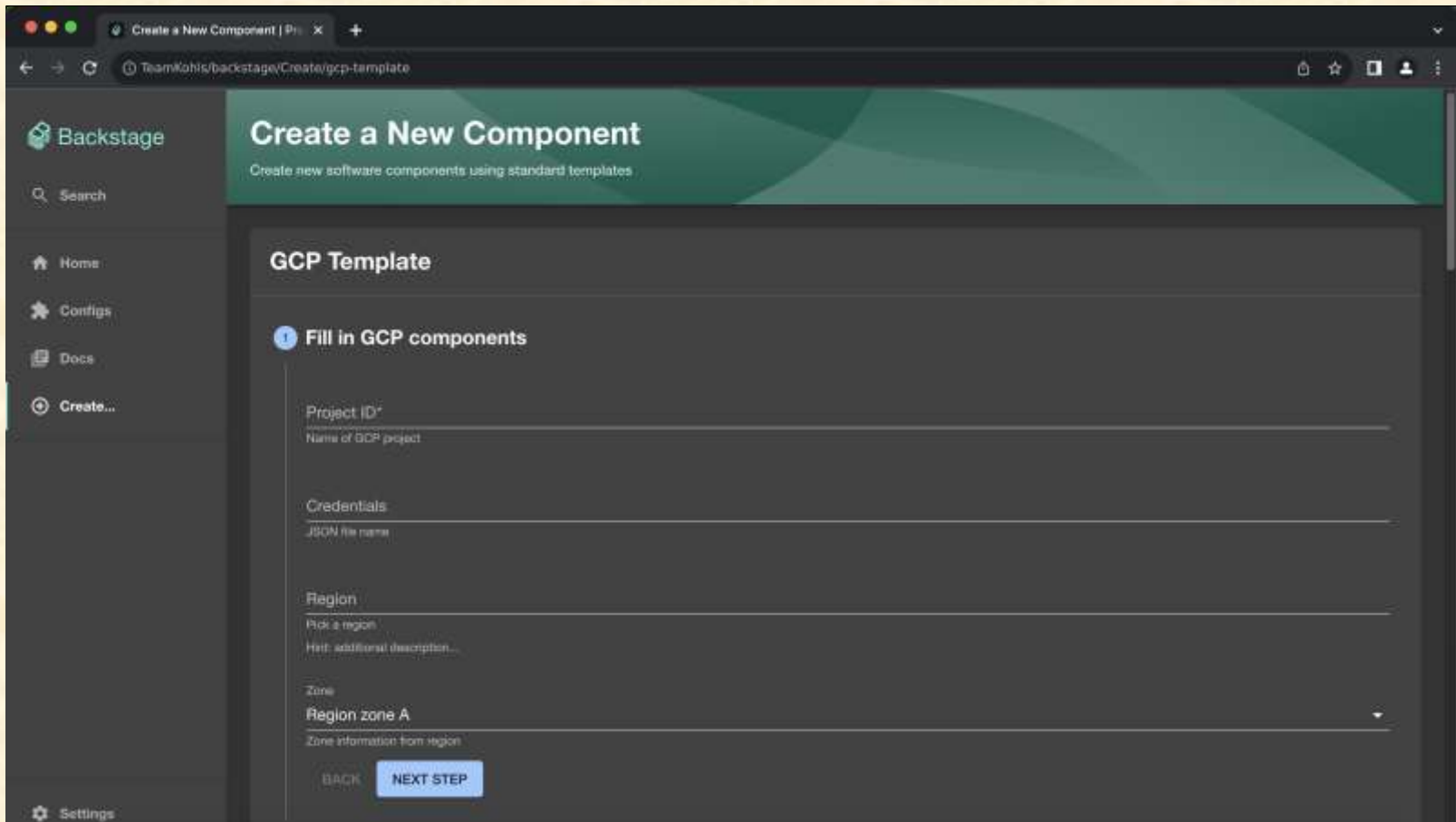


# Create Component from Template





# Create Component Configuration



The screenshot shows a web browser window with the Backstage interface. The browser's address bar shows the URL `TeamKohls/backstage/Create/gcp-template`. The page title is "Create a New Component" with the subtitle "Create new software components using standard templates".

The left sidebar contains the Backstage logo and navigation links: Search, Home, Configs, Docs, and Create... (highlighted). A Settings icon is at the bottom of the sidebar.

The main content area is titled "GCP Template" and features a step indicator "1 Fill in GCP components". The form includes the following fields:

- Project ID\***: A text input field with the placeholder "Name of GCP project".
- Credentials**: A text input field with the placeholder "JSON file name".
- Region**: A text input field with the placeholder "Pick a region" and a hint "Hint: additional description...".
- Zone**: A dropdown menu with the selected value "Region zone A" and a hint "Zone information from region".

At the bottom of the form, there are two buttons: "BACK" and "NEXT STEP".



# What's left to do?

- Backstage scripts in wrong directory
- Pass input to scripts
- Ensure scripts only run when invoked
  - Scripts run on launch
  - Pass parameter to only run in template
- Update Terraform to work with other providers
- Expand template functionality
- Handle server deployment





# Questions?

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