Blueprint Admin - Spring 2024

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We are glad that you have decided to join the Tech Team this semester. We hope this experience serves as an introduction to the world of software development. By the end of the semester, you will be able to improve your coding skills and have a greater understanding of Web/API development.

Overview of the project

To help our Project Teams develop software faster, we provide the teams with a staging environment. Here, Project Teams are able to deploy a production-ready application that will help them test new features and showcase their progress to the NPOs. We don't want anyone to have access to this staging environment. Therefore, we use a tool named SSO (Authelia).

Have you noticed that whenever you try to access Canvas or Workday, you are prompted to log in to a page? This is an SSO. It is a way for Blueprint to have a homogenous login. The SSO we use is called Authelia. The way Authelia retrieves the users with permission is through a YAML file. For example:

```
users:
  user1:
    disabled: false
    displayname: Blueprint User 1
    password: existingpassword
    email: user1@blueprint.com
    groups:
      - admin
      - dev
  user2:
    disabled: true
    displayname: Blueprint User 2
```

```
    password: existingpassword
    email: user2@blueprint.com
    groups:
      - admin
```

The main feature of our project is having a way to manage this YAML file. We need to be able to add, delete, disable, and update users in this YAML file. However, we also want to extend the functionality of our application by adding new features such as Team Management, Finances, Blog management, and Event Management.

Blueprint Admin (Frontend)

The frontend application is currently being developed with React using TypeScript. The web application should have the following pages:

1. Member Management
2. Application Management
3. Team Management
4. Budget Management

Member Management

The User Management page serves as the central hub for administrators to oversee and control user access and profiles within the system. This page allows for creating, editing, and deleting user accounts, enabling administrators to assign or revoke permissions and access levels. Key features include user search, filter options to locate users quickly, and detailed user profile views that display login history, activity logs, and personal settings. Through this interface, administrators can also reset passwords, manage roles (e.g., admin, user, guest), and set up multi-factor authentication to enhance security.

Application Management

The Application Management page is tailored to oversee and process applications submitted to the organization. This platform serves as a centralized system for administrators to review, sort, and respond to various applications efficiently. Key functionalities include viewing and assessing each application, tracking its status (e.g., received, under review, approved, rejected), and managing communications with applicants directly from the interface.

Team Management

The Team Management page focuses on facilitating team organization, collaboration, and productivity within the company or system. It provides tools for creating and managing team structures, including working groups. Administrators can assign members to teams, set roles and responsibilities, and track progress on team objectives or projects. Features may include shared

calendars, task assignments, performance metrics, and communication tools to support effective teamwork. The page aims to centralize team resources and information, making it easier to manage workflows and ensure that team members are aligned with their goals and deadlines.

Budget Management

The Budget Management page provides a comprehensive way to track Blueprint's budget. Throughout the semester, we organize various events for which we need a budget. This page will help us track how much of our budget we have allocated to events and how much we have left for future events. Since we are migrating our servers to a cloud provider, we need to see if our server usage will exceed the budget.

Blueprint Admin (Backend)

User Management