MICHIGAN STATE
UNIVERSITY

Project Plan Presentation
Evolutio Project Reporting Tool

The Capstone Experience

Team Evolutio

Satya Byreddy

Juan Faure

Rushil Mantripragada

Arjun Gupta

Ammar Elkafrawy

Department of Computer Science and Engineering

Michigan State University

Spring 2024

From Students…
…to Professionals

Project Sponsor Overview

- Evolutio is a small technology consulting company

- Has around 30-40 employees, headquartered in Chicago but has international reach as well.

- Assists clients in projects involving observability, automation, cloud management, security and data

ēVOLUTIO

Project Functional Specifications

- Evolutio struggles with finding a way to present key information to their stakeholders in an organized/timely manner.

- Team Evolutio is creating a project reporting tool that will allow consultants and clients to oversee projects and progress through status reports, progress timelines, and task overviews.

- Consultants and stakeholders alike will be able to share key information through a dynamic exportation feature.
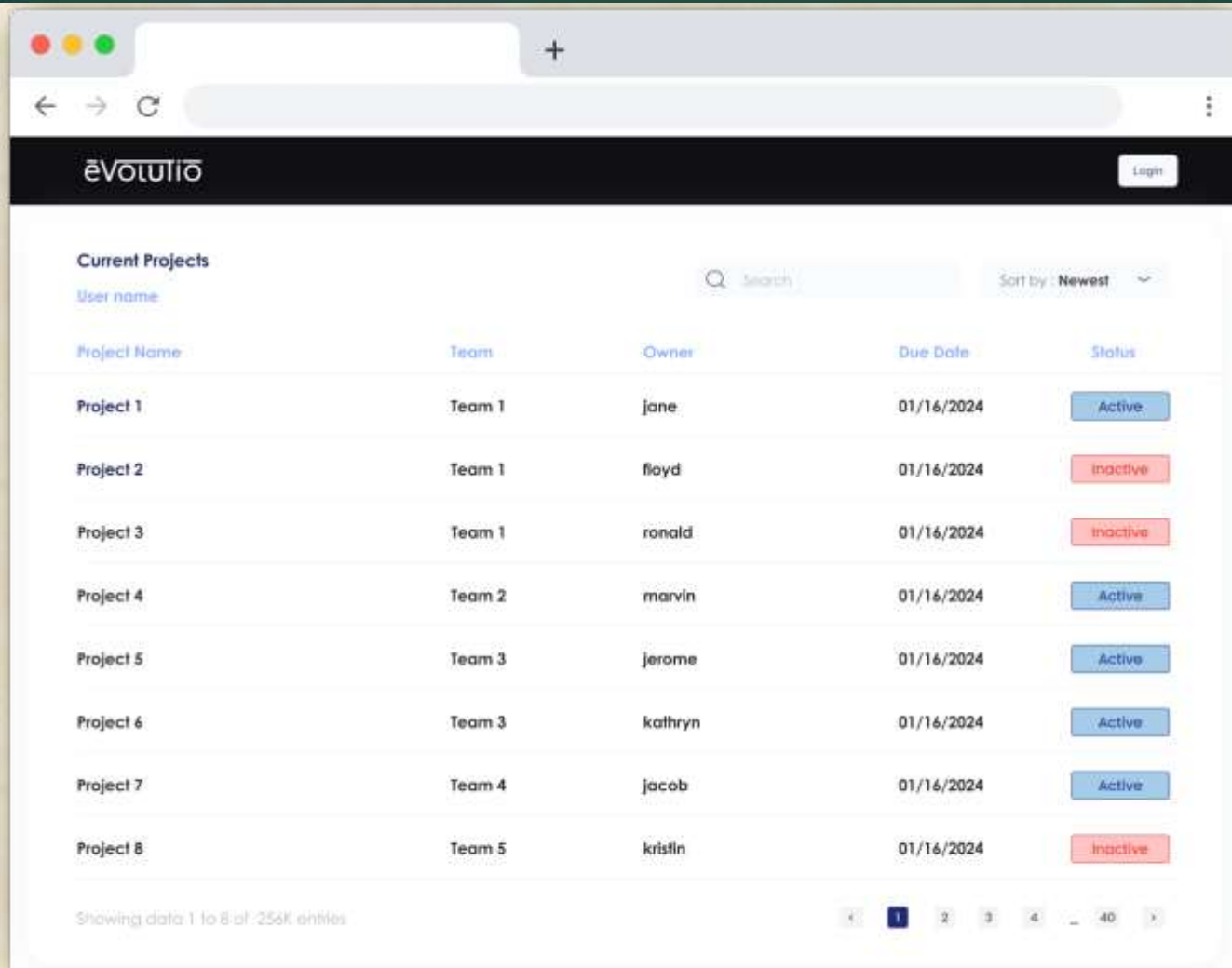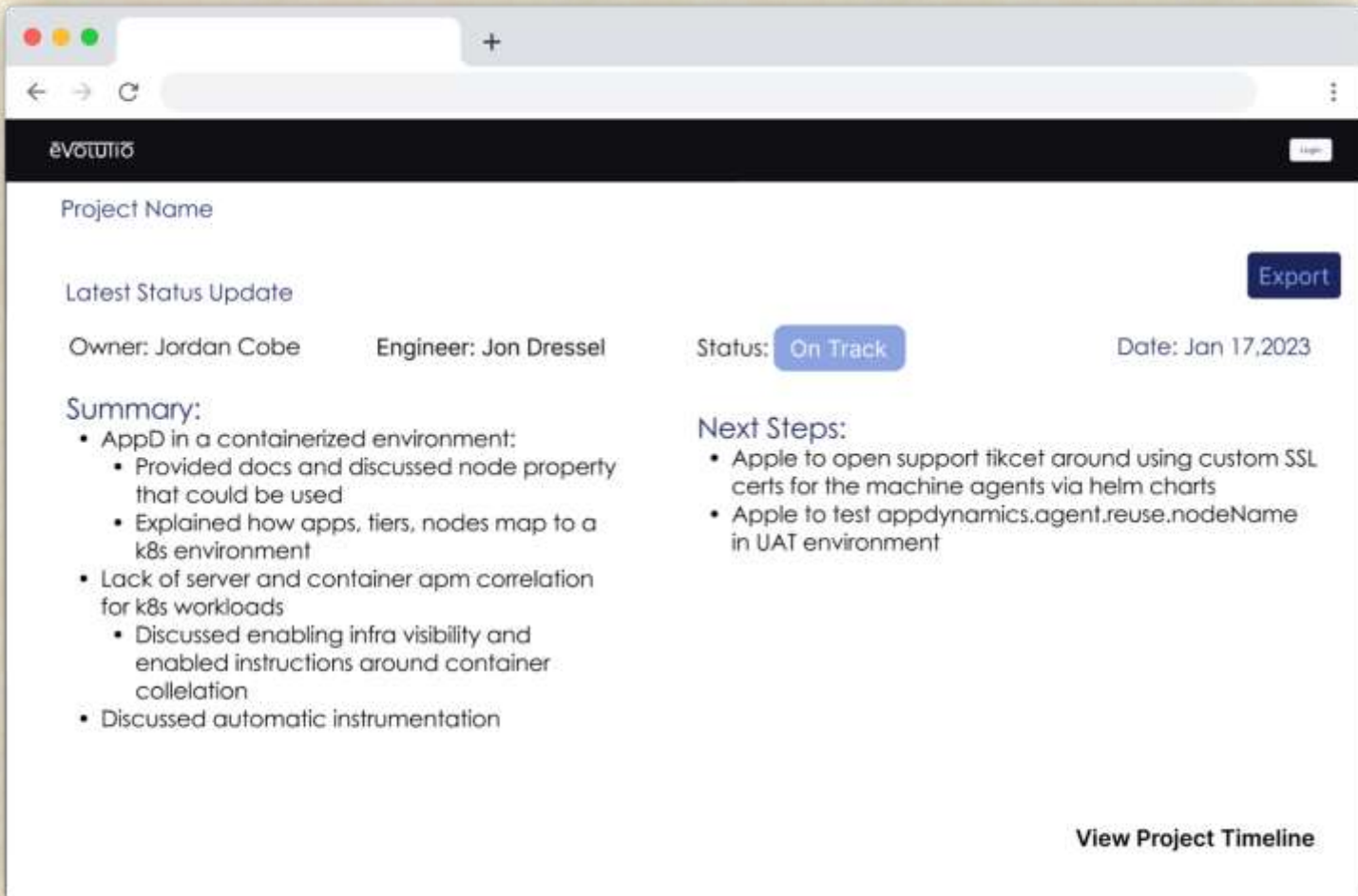
Project Design Specifications

- Support generation of multiple exportable formats.

- Reports will be customizable for each format.

- Regularly run scheduled reports that are automatically sent to clients.

- Tool will be split into a project dashboard, status update summary, task list view summary, and a progress timeline summary.
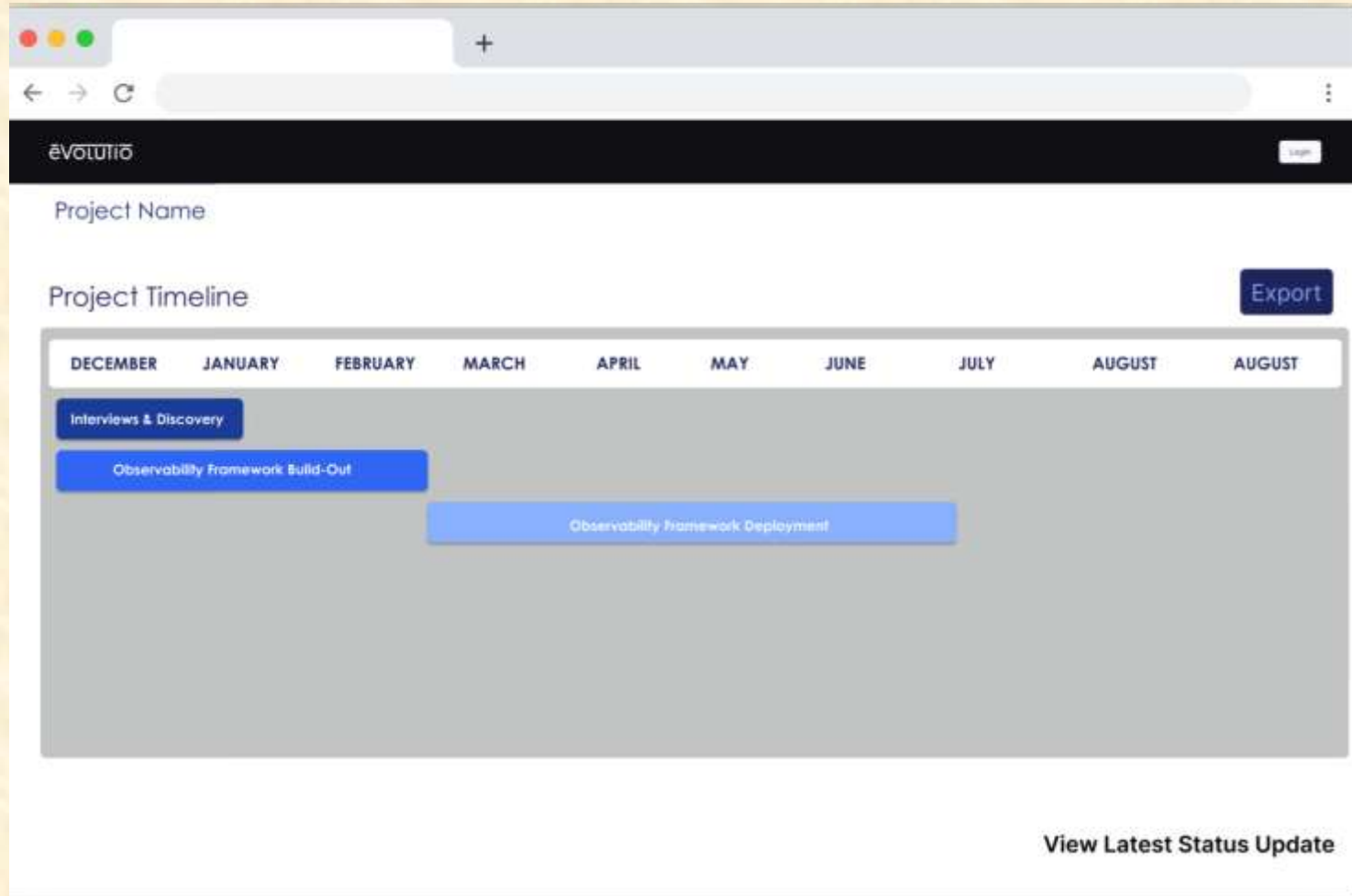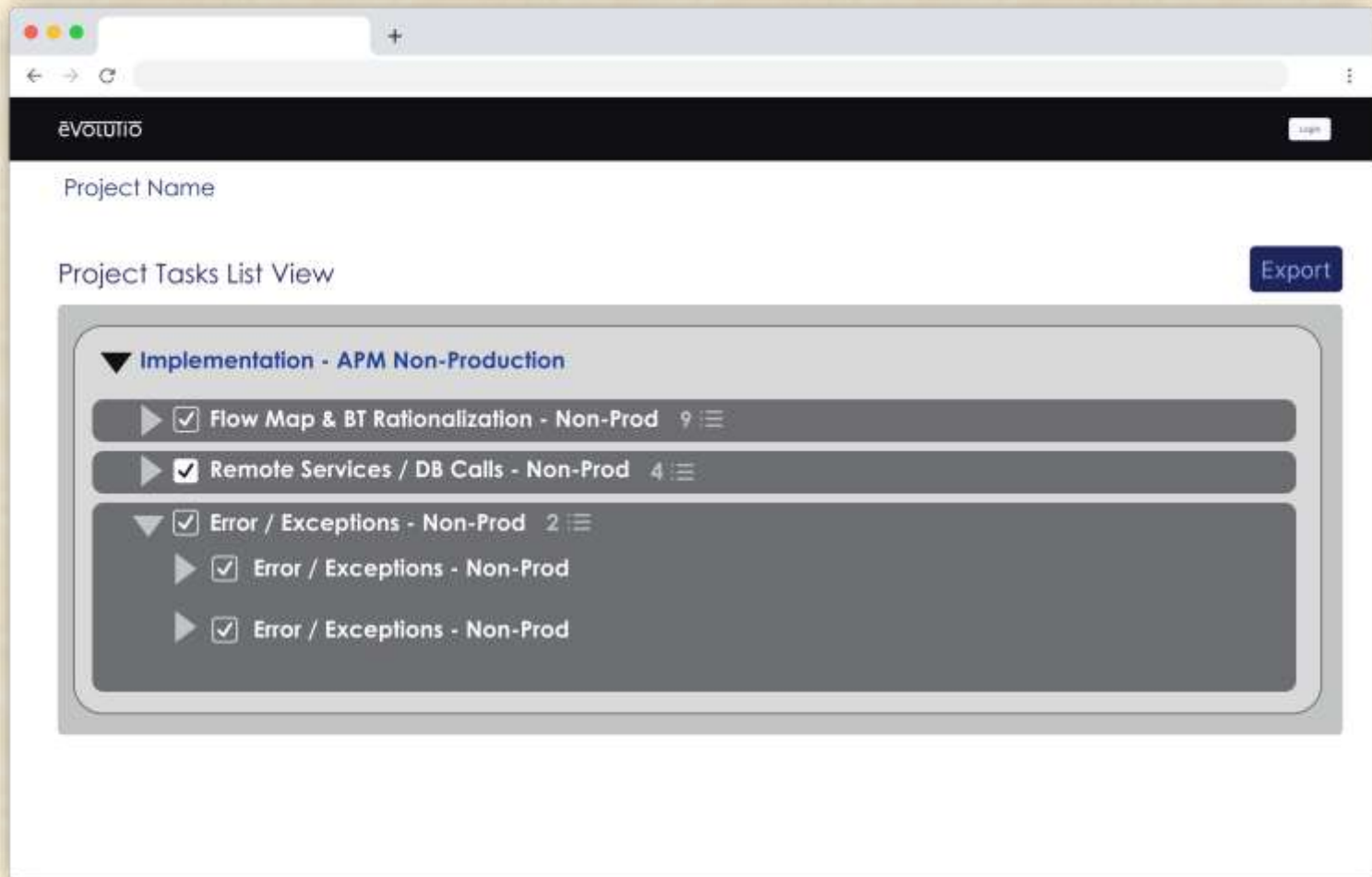
Screen Mockup: Dashboard/Landing

Screen Mockup: Project Status Update

Screen Mockup: Project Timeline

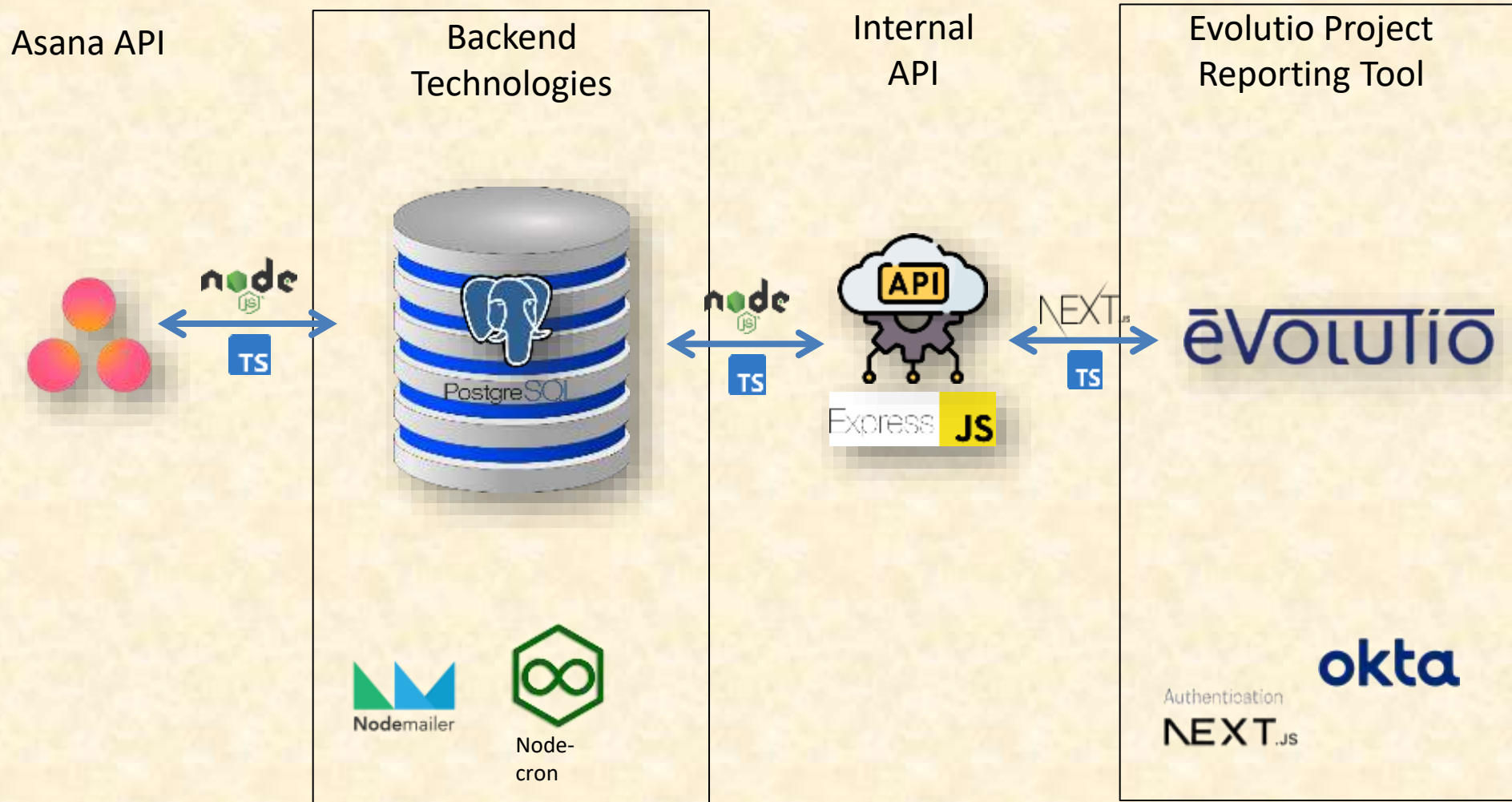# Screen Mockup: Project Task List View

Project Technical Specifications

- Frontend: Utilizing Next.js and React.js, the Evolutio Project Reporting Tool offers a responsive and user-friendly interface, ensuring quick and efficient project reporting experiences.

- Backend: Powered by Node.js and integrated with a SQL database, the backend ensures efficient data processing and secure management, catering to complex reporting needs.

- Middleware and Integration: The reporting tool is secured with Okta's identity management, and its real-time synchronization with Asana's API enhances the accuracy and timeliness of reports.

Project System Architecture

Asana API

Backend
Technologies

Internal
API

Evolutio Project
Reporting Tool

Project System Components

- **Software Platforms / Technologies**
  - **Next.js Frontend**: Enables fast, optimized experiences with server-side rendering.
  - **React.js UI**: Ensures a scalable, interactive user interface.
  - **Node.js Backend:** Manages asynchronous events and heavy I/O efficiently.
  - **Express Framework:** Facilitates smooth frontend-backend data flow.
  - **SQL Database:** Guarantees data integrity and supports complex queries.
  - **Okta Security:** Provides strong authentication and role-based access.
  - **Asana Integration:** Allows real-time project data sync for up-to-date reporting.
  - **Scalable Architecture:** Ready for future expansions with additional features.

Project Risks

- **Data Extraction and Integration from Asana**
  - Receiving the information in Asana using the core API can be time/resource consuming
  - We plan to analyze developer examples that utilize the API and thoroughly test the calls we make
- **Email Scheduler Security and Integration**
  - Implementation of an email scheduler to answer a client pain point without compromising application function or security
  - We will Research any implementations in current applications the sponsor may have, and look into developer examples we found
- **Customizable PDF Report Generation**
  - The project requires the capability to generate PDF reports that are not just functional but also customizable.
  - We will look into technologies such as Apache PDFBox or iText to create a flexible template system
- **Integration with Okta and Adoption Compatibility**
  - Unaware on process of implementing Okta for user verification
  - Research Github Repositories and have specific times set to research documentation. Also Communicate with sponsors to ensure easy migration

Questions?

? ? ? ?
? ?
? ?
?