learn..evolve

WIPRO NGA Program – 25SUB4530_CP_JAVA

Capstone Project Presentation – 9th Feb & 10th Feb 2026

E-commerce Order Management System

Batch - 11

Presented by -

58674 - Abhinay Matam

58664- Nandyala Siva Sai Danush

General - RPS
Data

Introduction:

- This E-Commerce Order Management System streamlines online shopping by efficiently handling products, orders, and delivery statuses.
- The application features a responsive Angular frontend, offering distinct dashboards for admins and customers to manage their activities.
- Built on a robust Spring Boot backend with Spring Data JPA, it ensures secure, reliable, and high-performance data processing.
- To ensure scalability and high availability, the system is containerized with Docker and deployed on the Azure cloud platform.
- Key capabilities include real-time product inventory management and comprehensive order lifecycle tracking from placement to delivery.
- This full-stack solution demonstrates modern DevOps practices, combining powerful frameworks to solve real-world retail challenges.

RPS learn..evolve
2024 - RPS Consulting all rights reserved

General - RPS Data

Technologies Used:

- Frontend
  - Angular
  - TypeScript
  - HTML & CSS
- Backend
  - Java
  - Spring Boot
  - Spring Data JPA
  - Hibernate
  - MySQL
- DevOps & Deployment
  - Docker
  - Azure App Service
  - GitHub

RPS learn..evolve

2024 - RPS Consulting all rights reserved

General - RPS Data

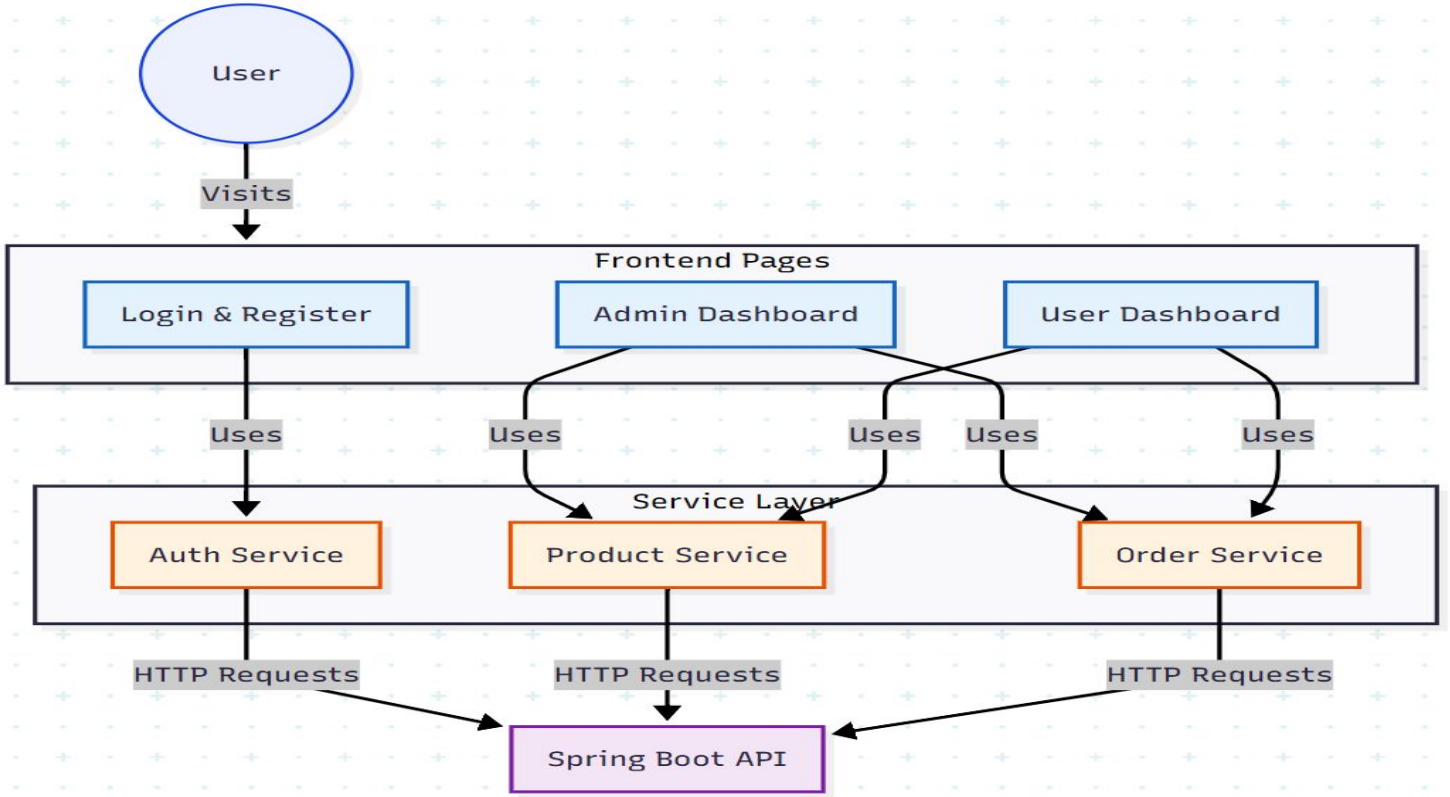
Implementation:

- **Project Setup:** Initialized the Angular frontend and Spring Boot backend to establish the full-stack architecture.
- **Database Configuration:** Configured MySQL and defined JPA entities to model Products, Users, and Order data.
- **Backend Development:** Implemented secure REST APIs for authentication, product management, and order processing logic.
- **Frontend Design:** Built responsive Angular components for Login, Admin Dashboard, and User Shopping interfaces.
- **Integration:** Connected the frontend to backend services using HttpClient to enable real-time data flow.
- **Deployment:** Containerized the application with Docker and deployed it to Azure for public accessibility.

2024 - RPS Consulting all rights reserved

General - RPS Data

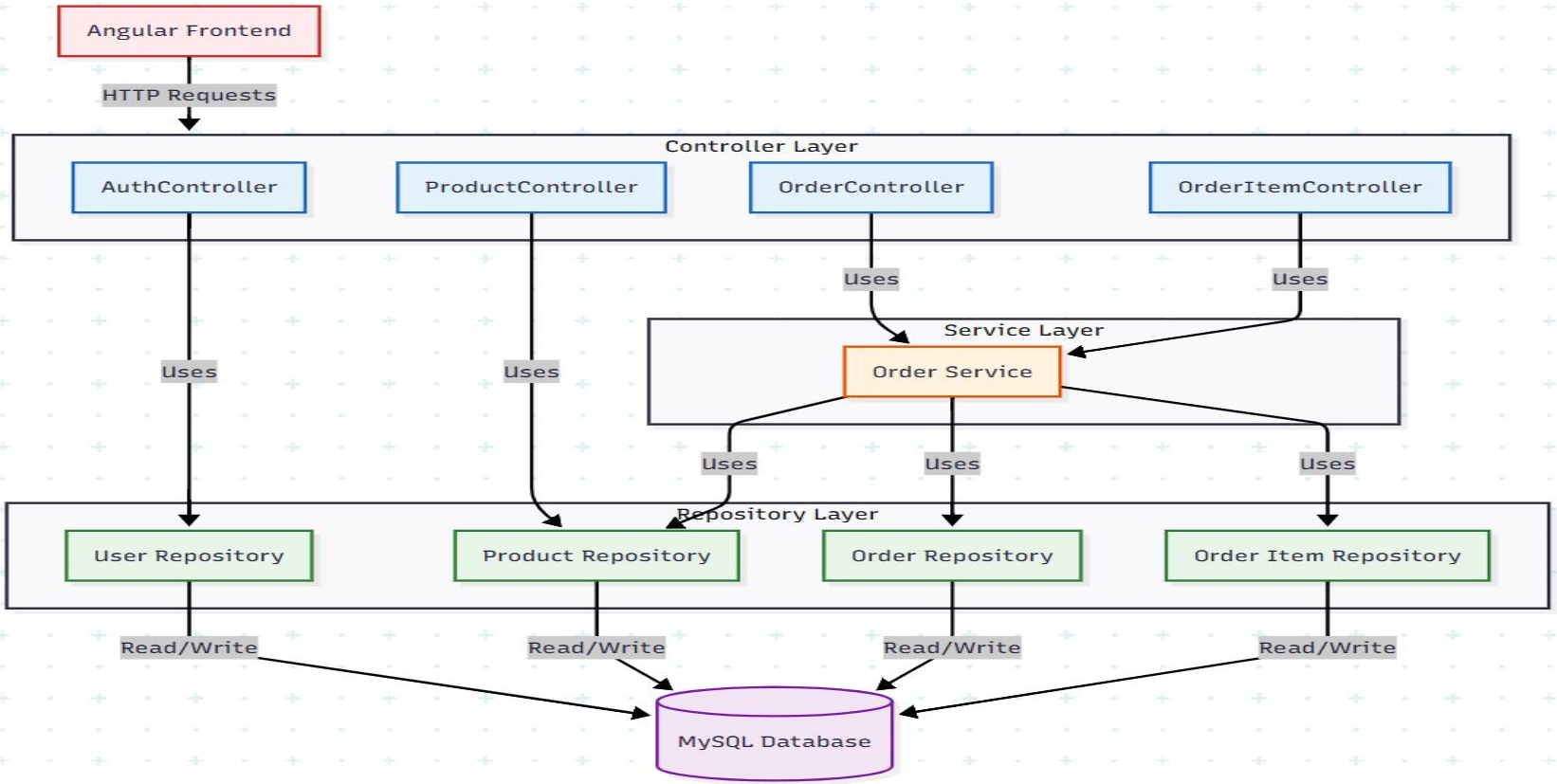
Frontend Architecture:



2024 - RPS Consulting all rights reserved

General - RPS

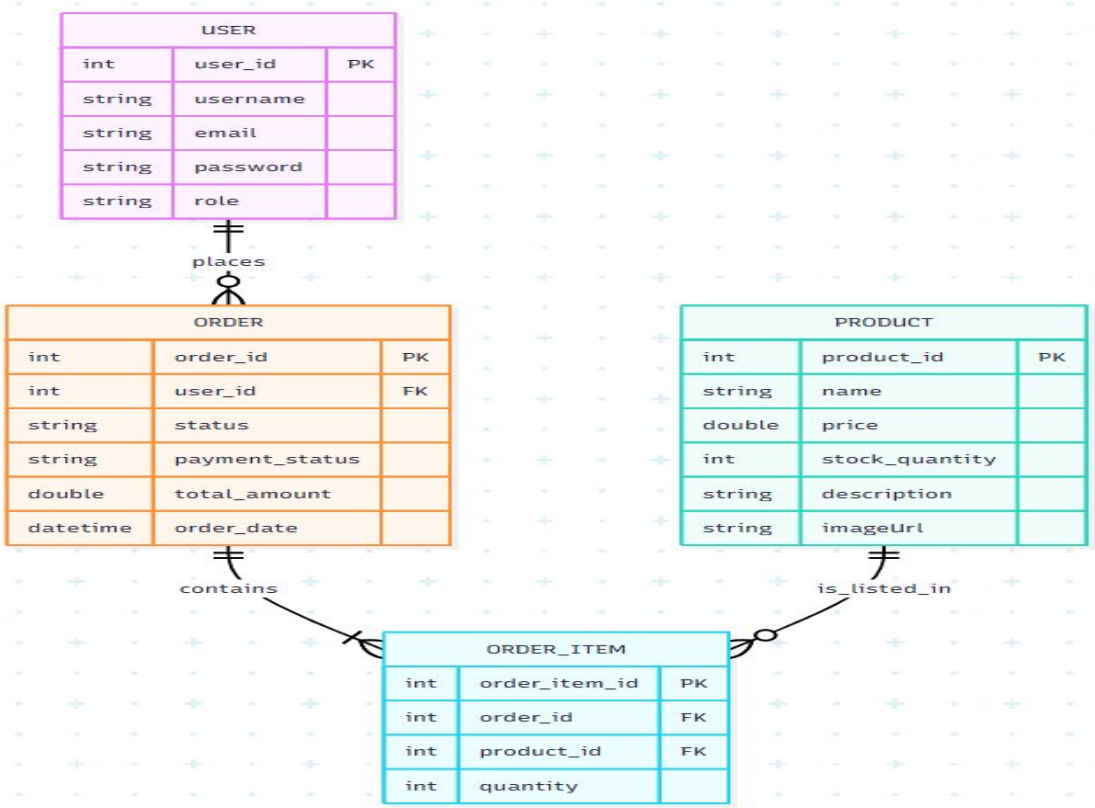
Backend Architecture:



2024 - RPS Consulting all rights reserved

General - RPS
Data

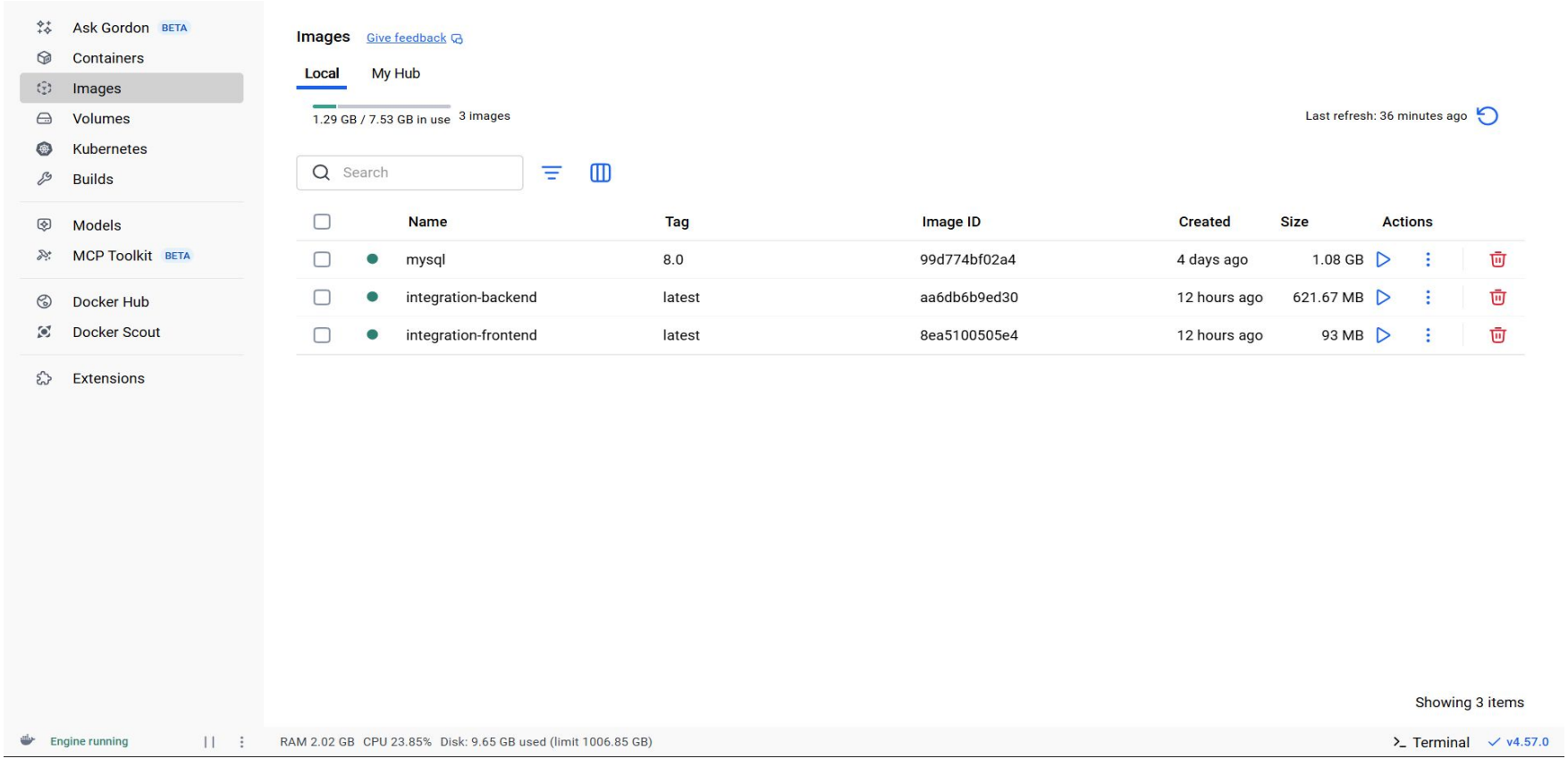
Database Implementation:



2024 - RPS Consulting all rights reserved

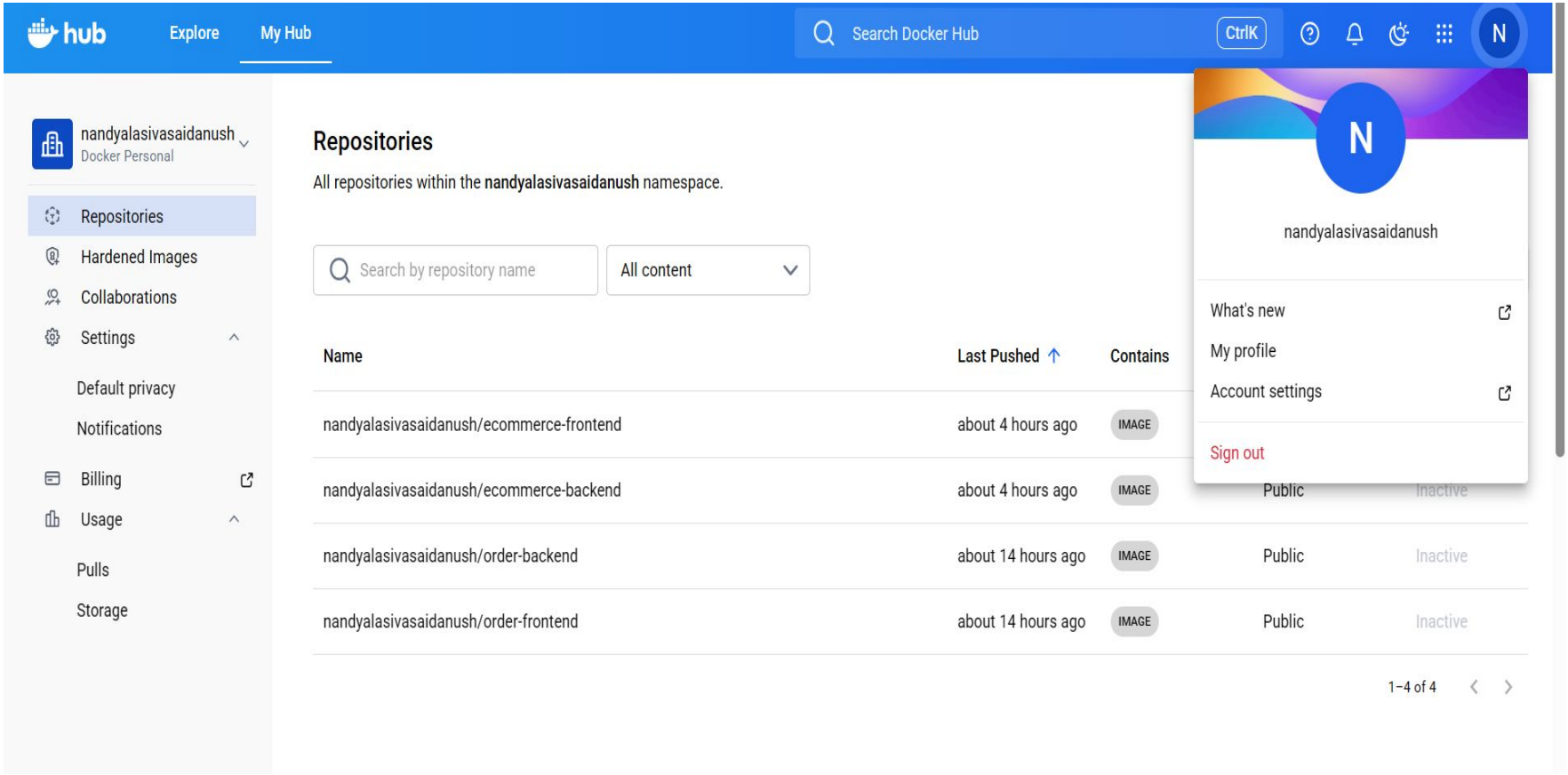
General - RPS
Data

Docker Implementation:



2024 - RPS Consulting all rights reserved

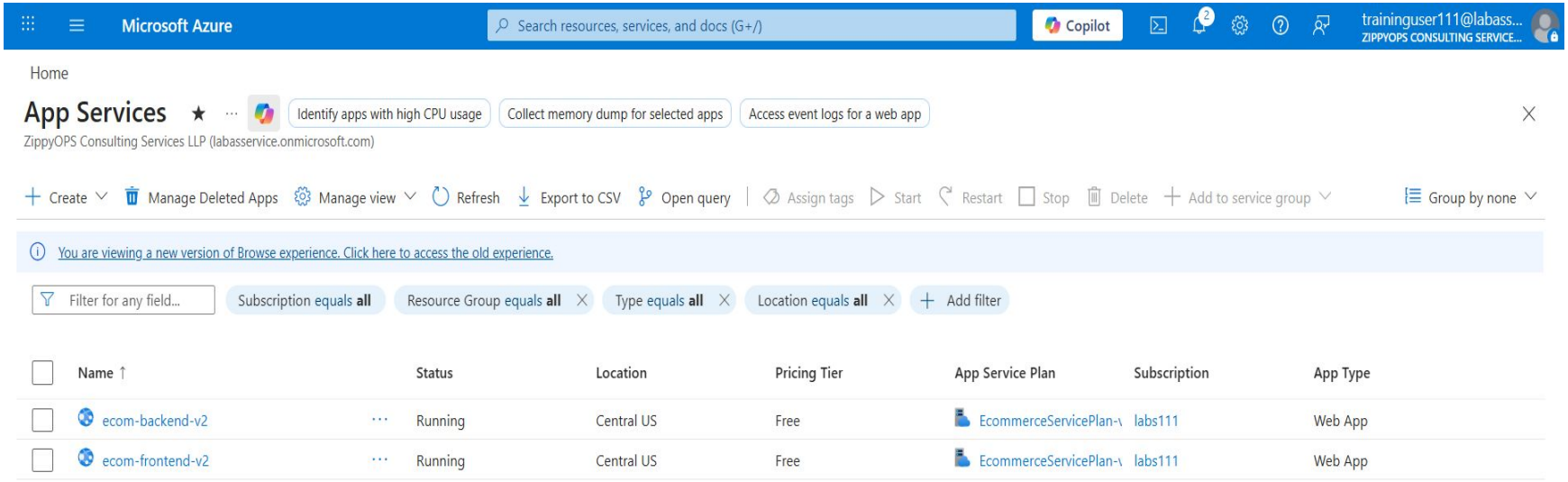
Docker Implementation:



2024 - RPS Consulting all rights reserved

General - RPS Data

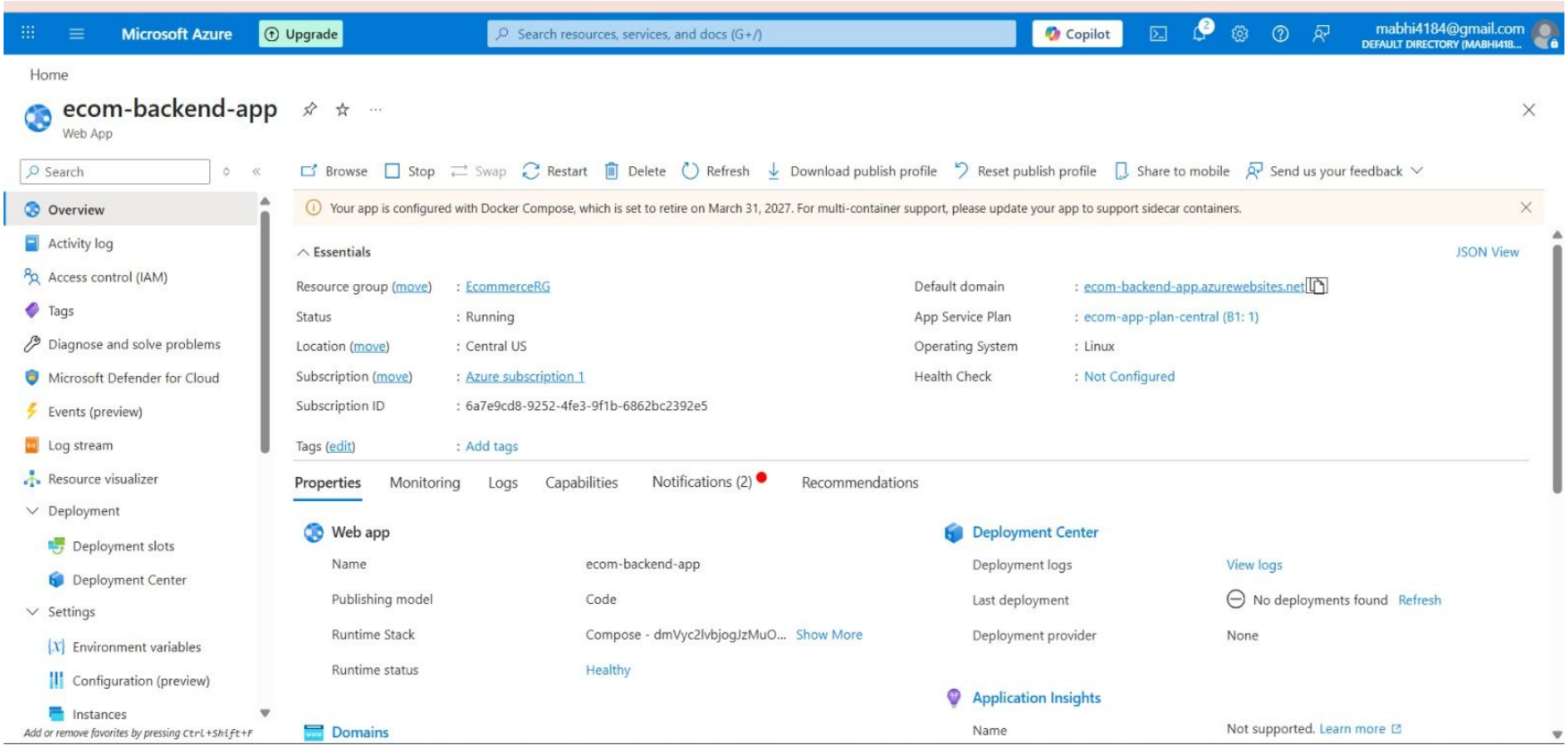
Azure Deployment:



2024 - RPS Consulting all rights reserved

General - RPS Data

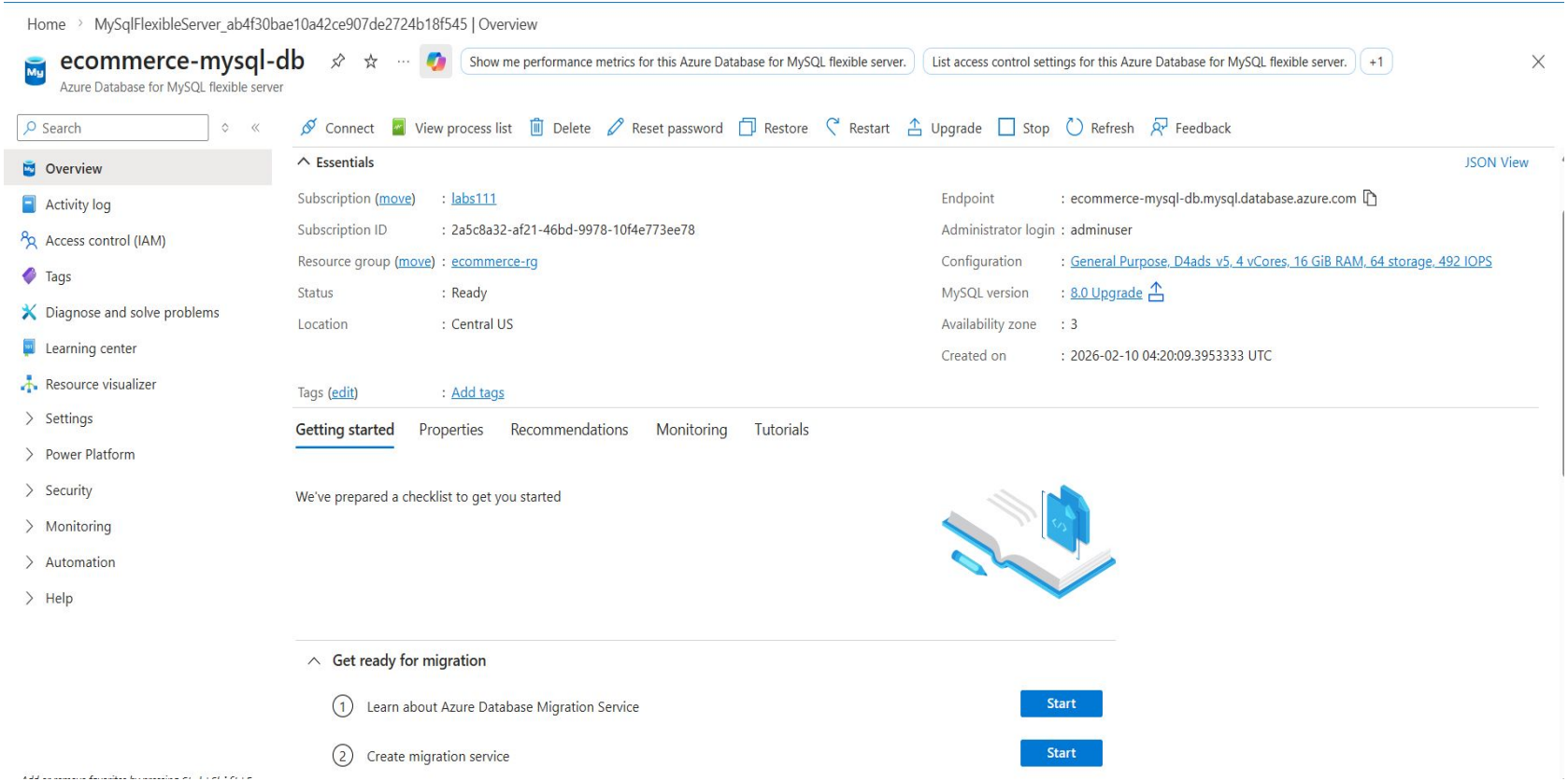
Azure Deployment:



2024 - RPS Consulting all rights reserved

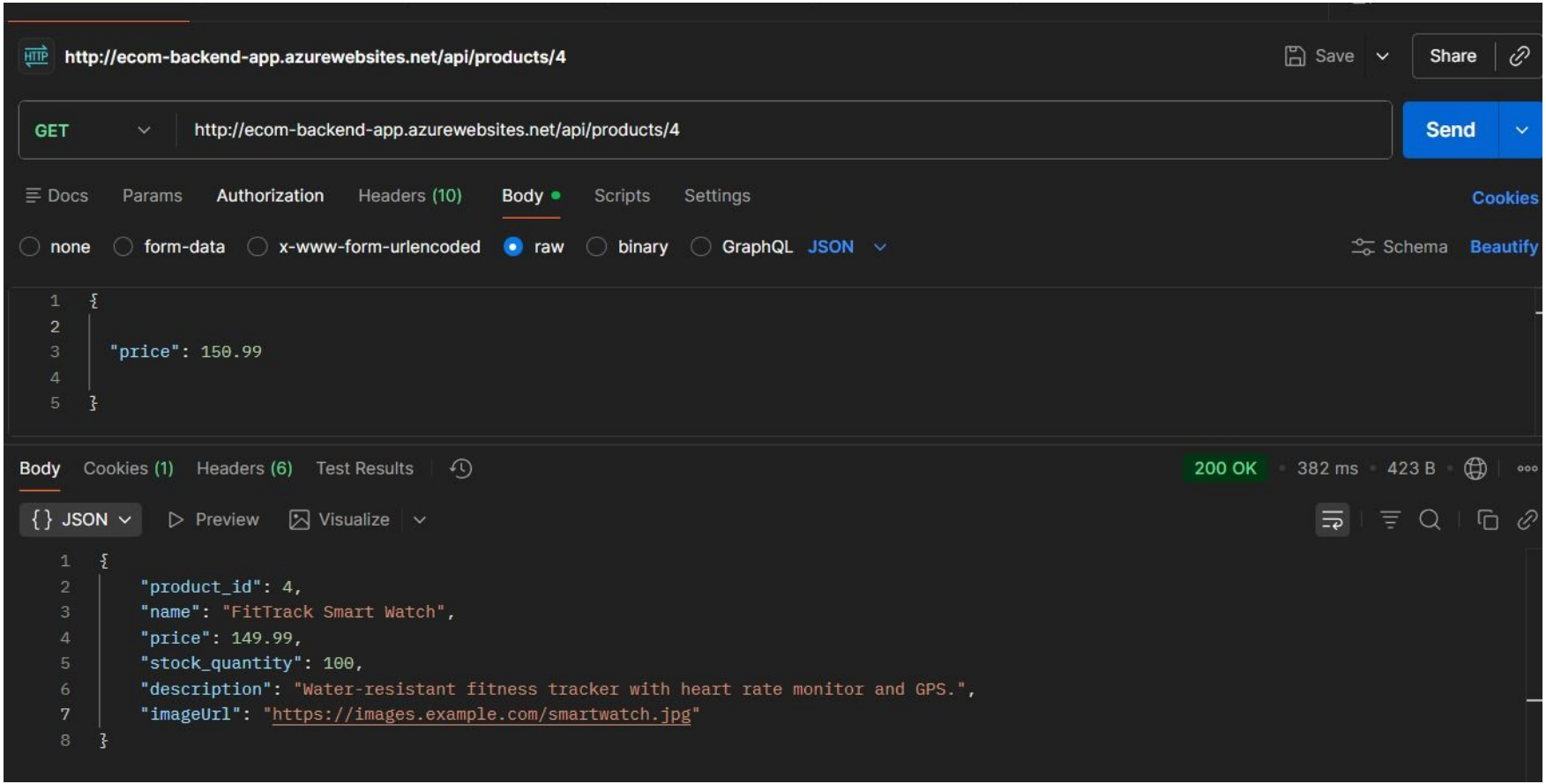
General - RPS Data

Azure Deployment:

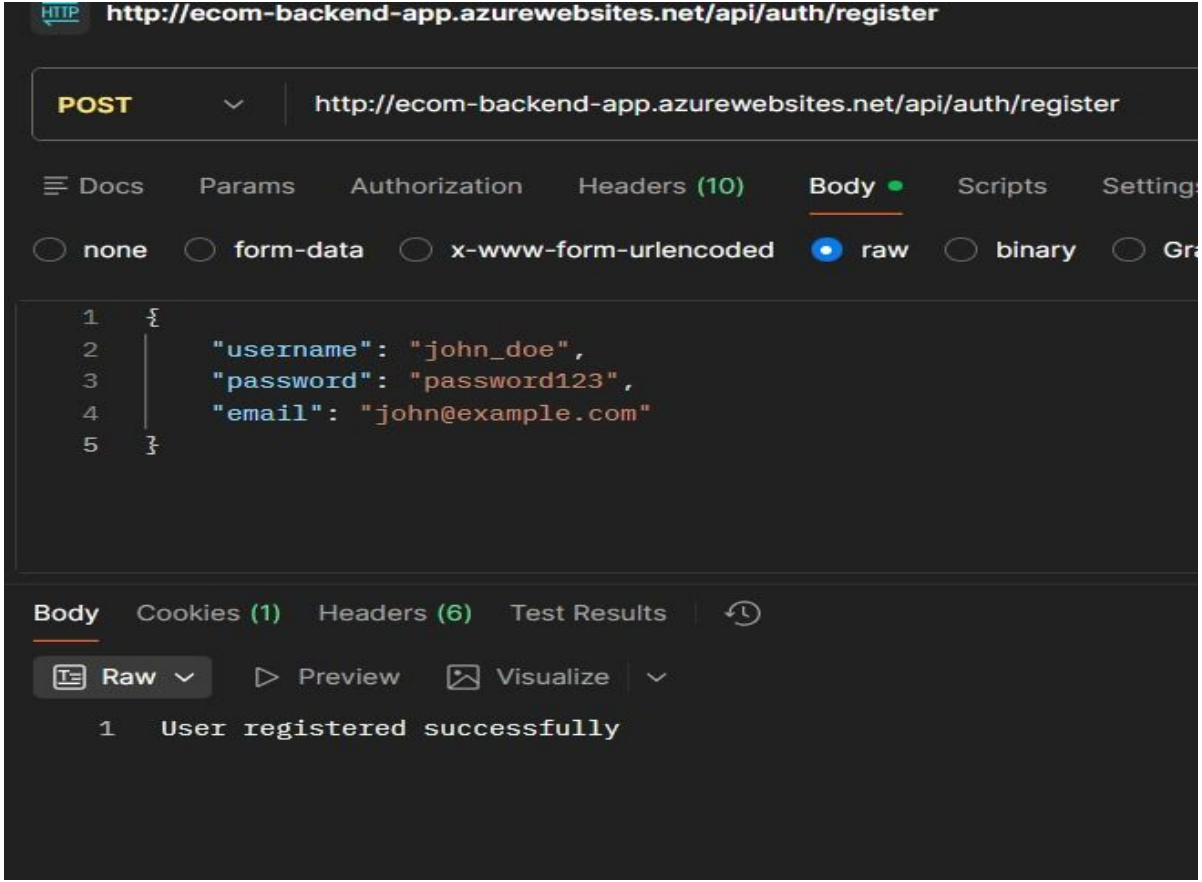


2024 - RPS Consulting all rights reserved

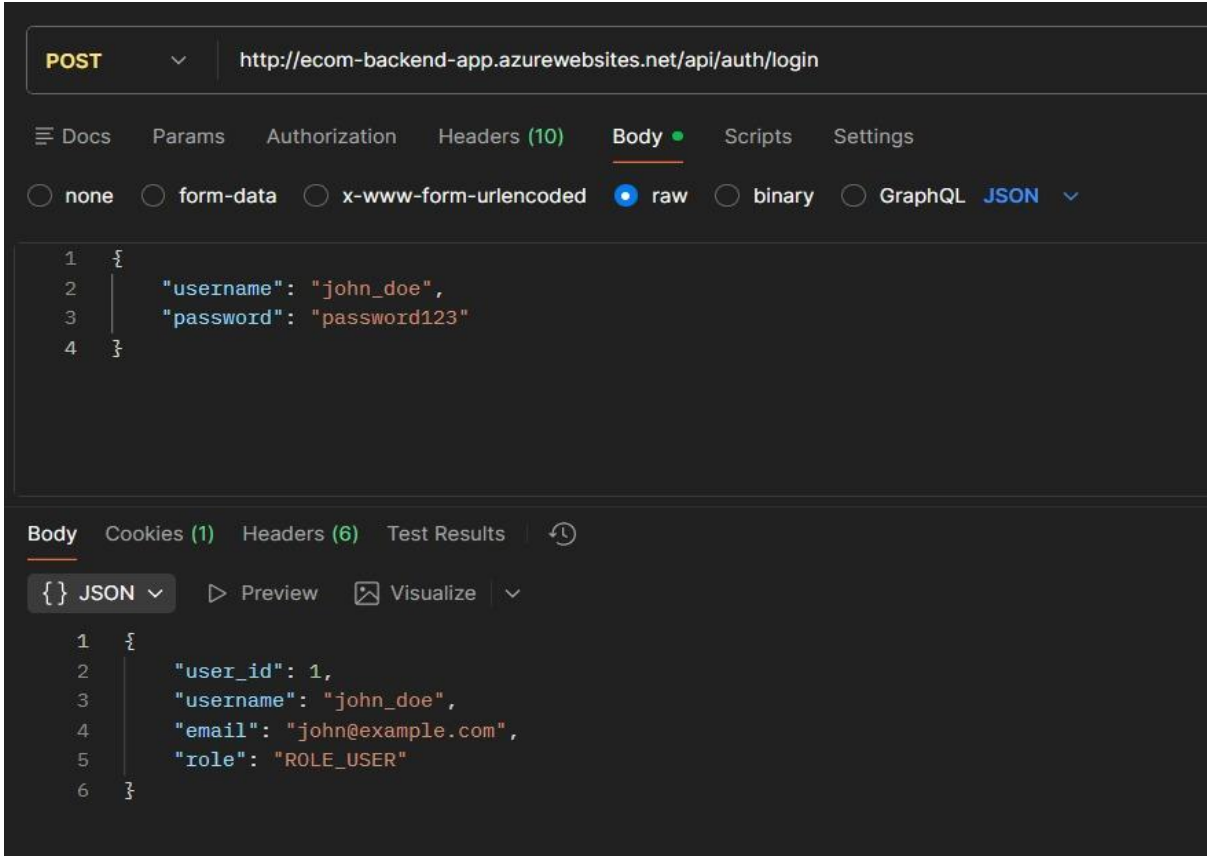
General - RPS Data



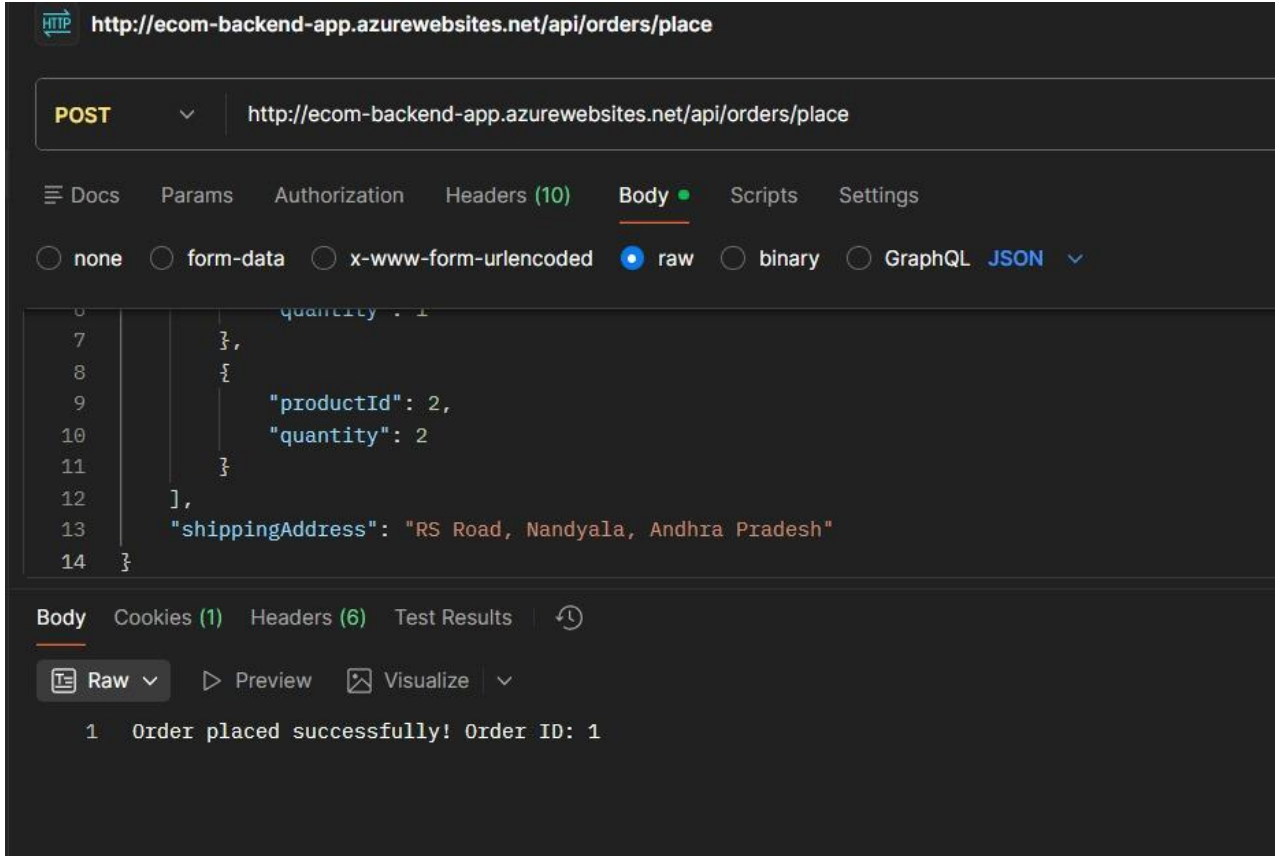
2024 - RPS Consulting all rights reserved



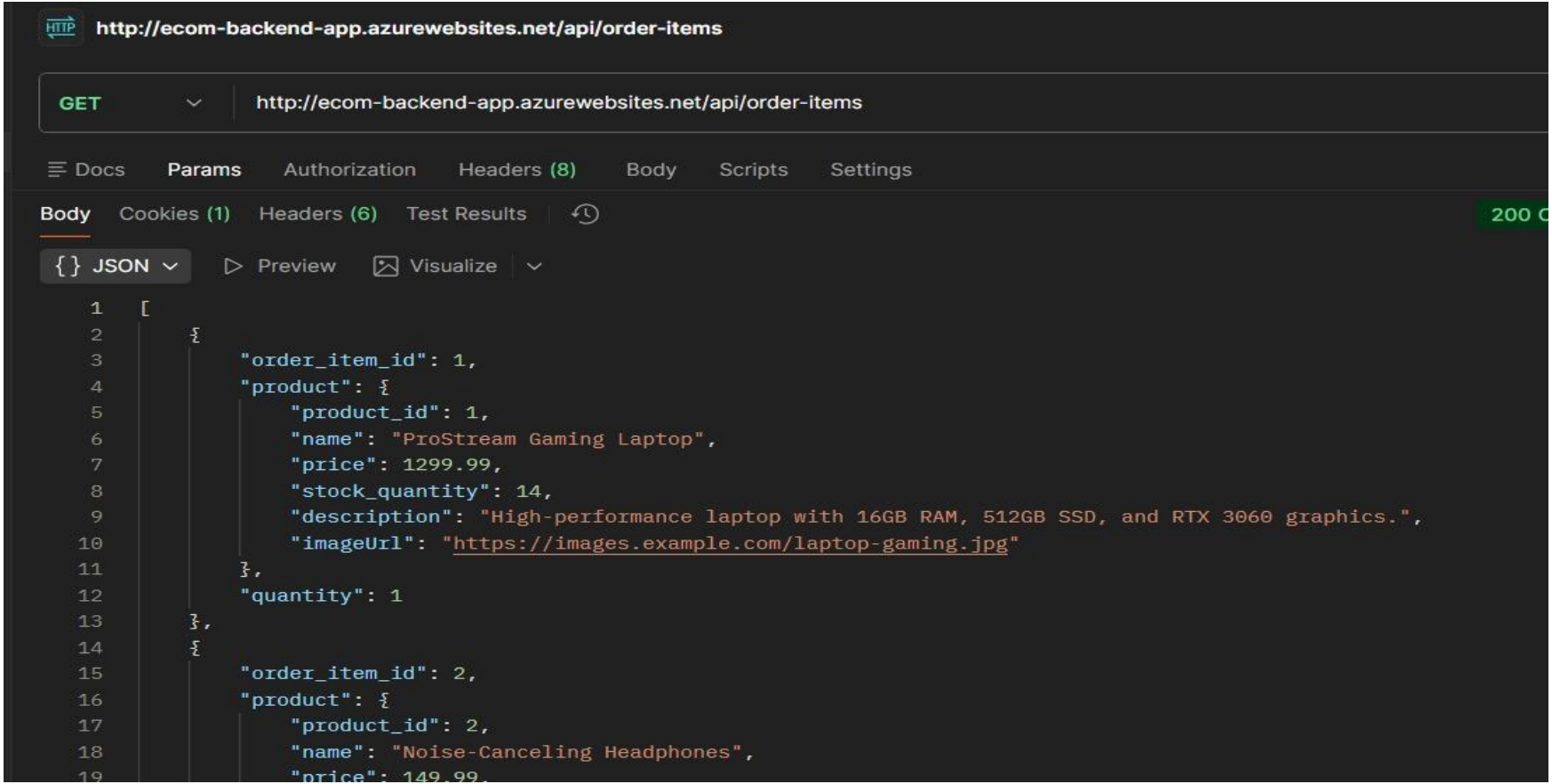
2024 - RPS Consulting all rights reserved



2024 - RPS Consulting all rights reserved

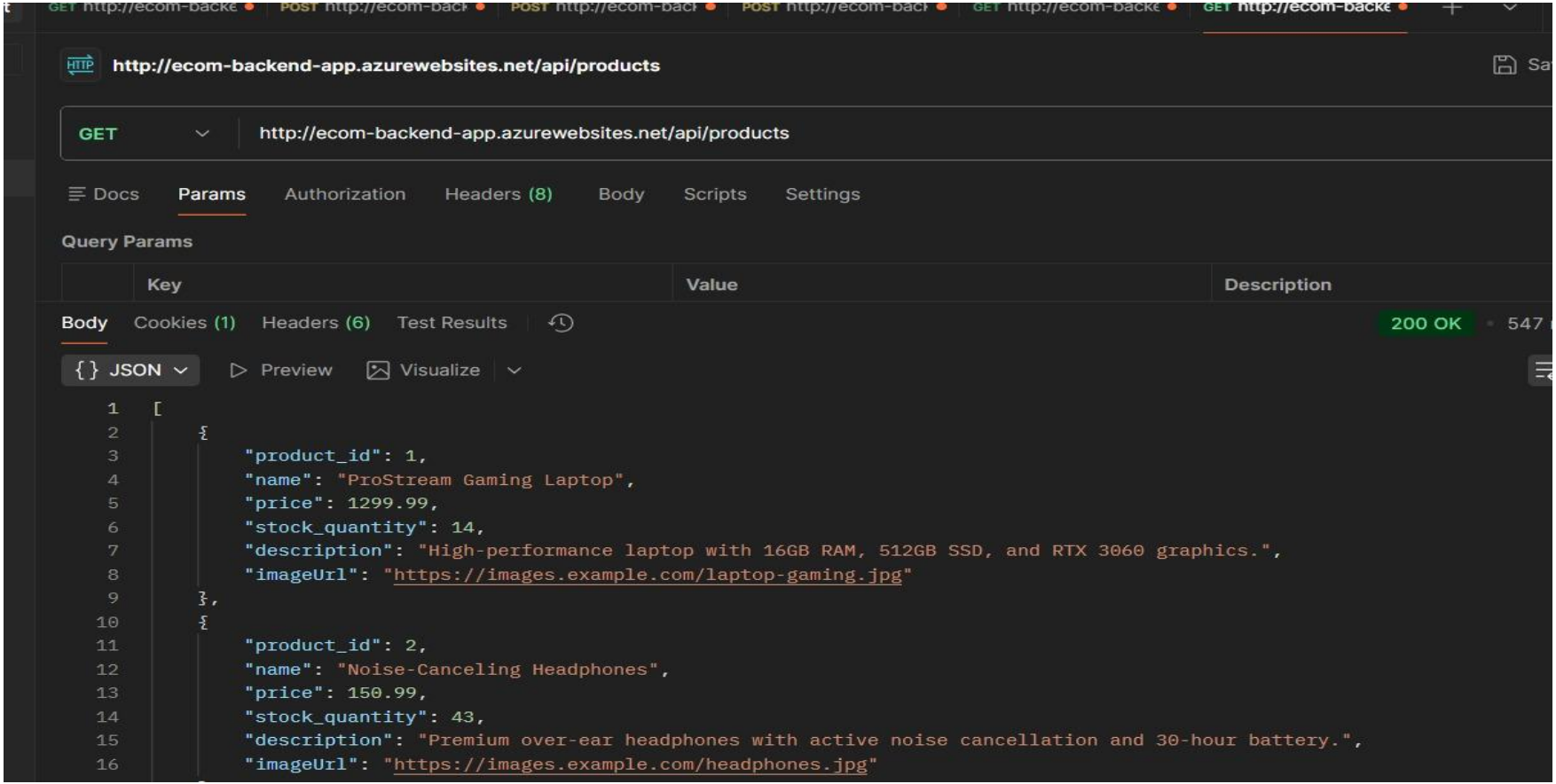


2024 - RPS Consulting all rights reserved



2024 - RPS Consulting all rights reserved

General - RPS Data

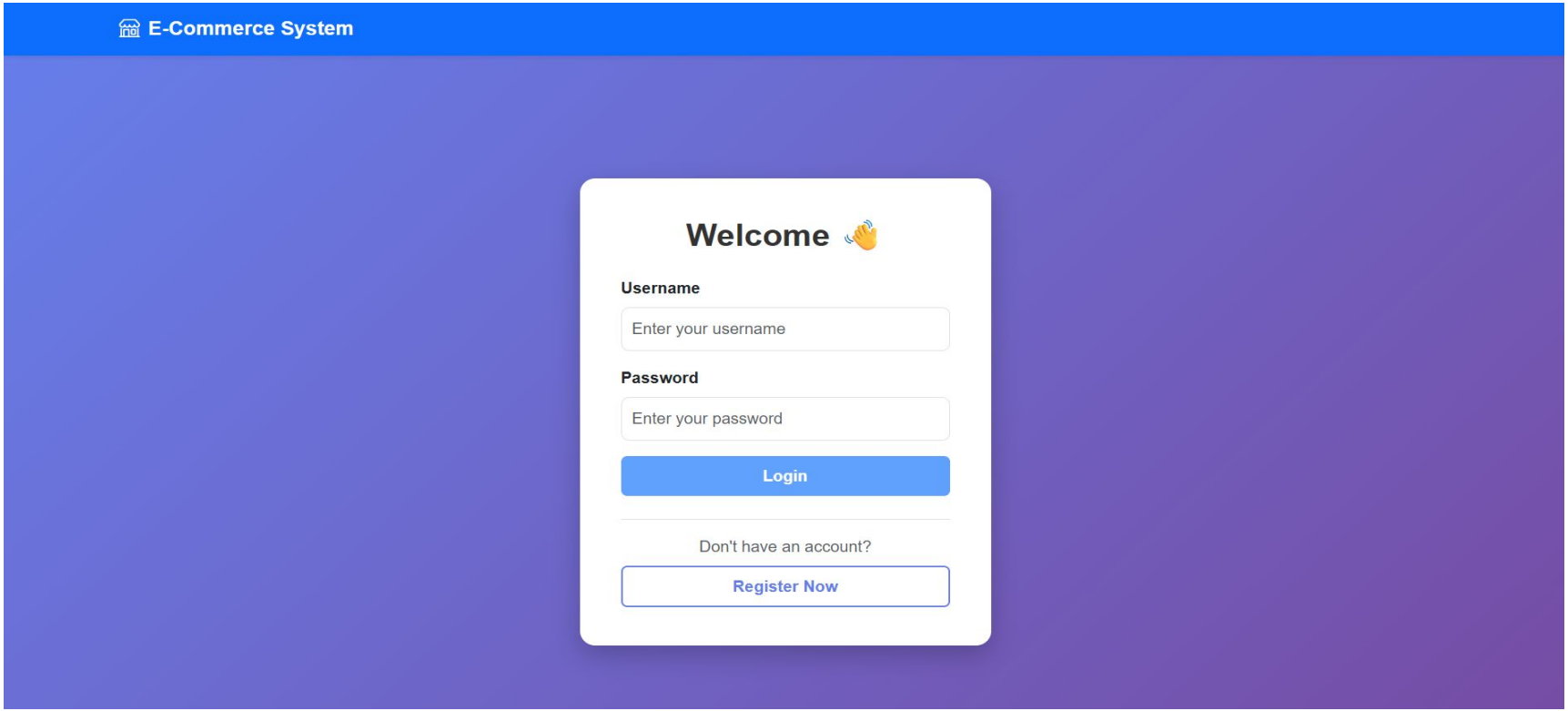


2024 - RPS Consulting all rights reserved

General - RPS

Application Walkthrough:

Login Page:

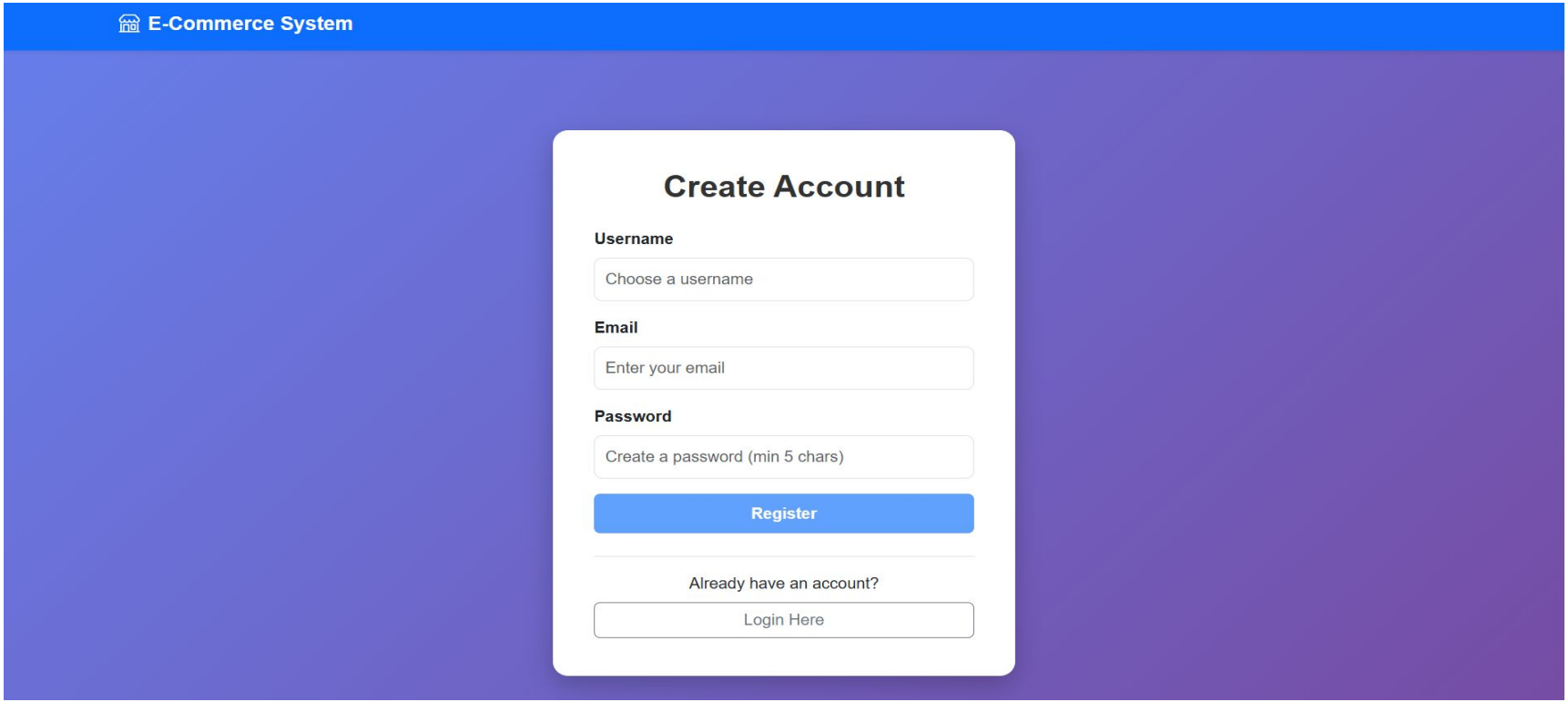


2024 - RPS Consulting all rights reserved

General - RPS

Application Walkthrough:

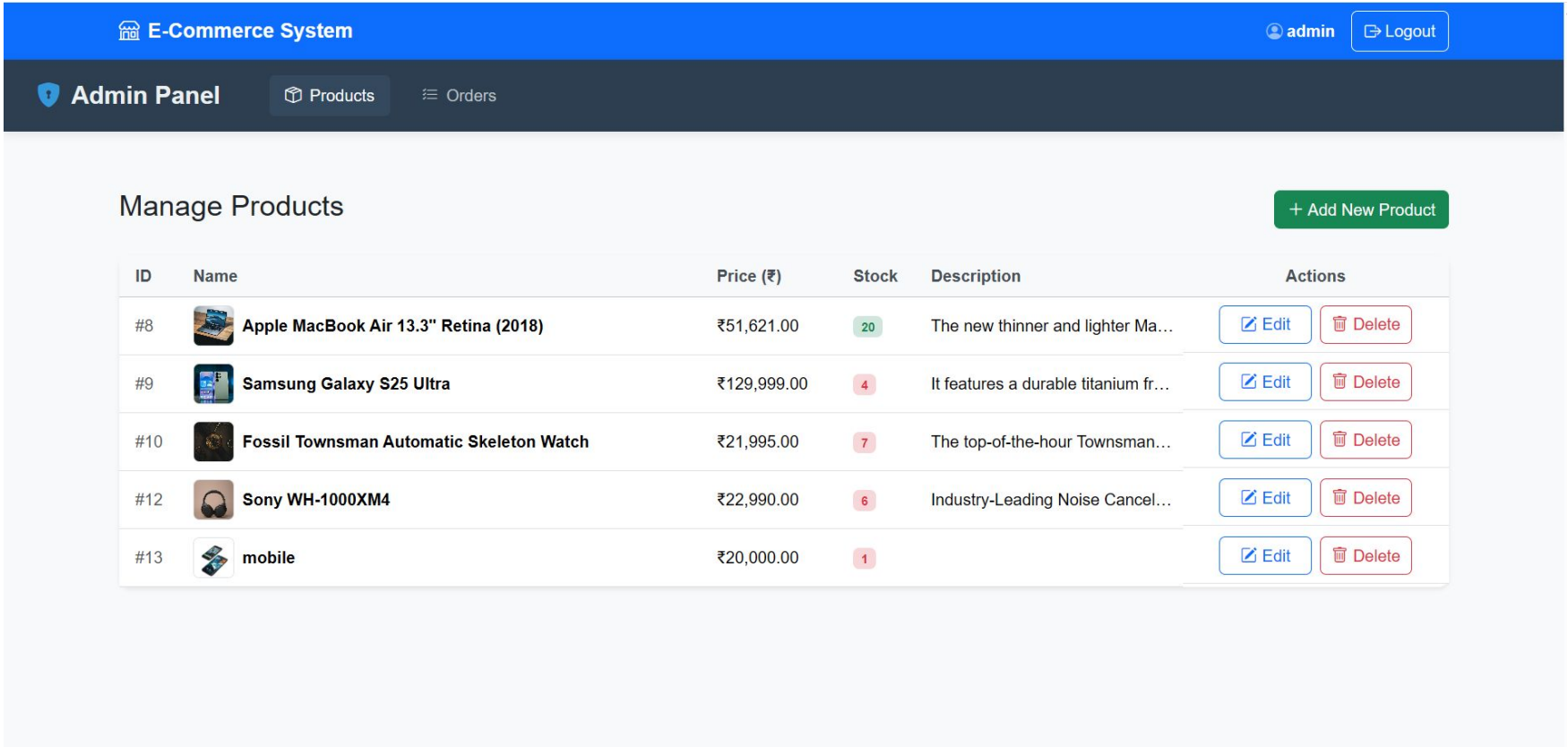
Registration Page:



2024 - RPS Consulting all rights reserved

General - RPS

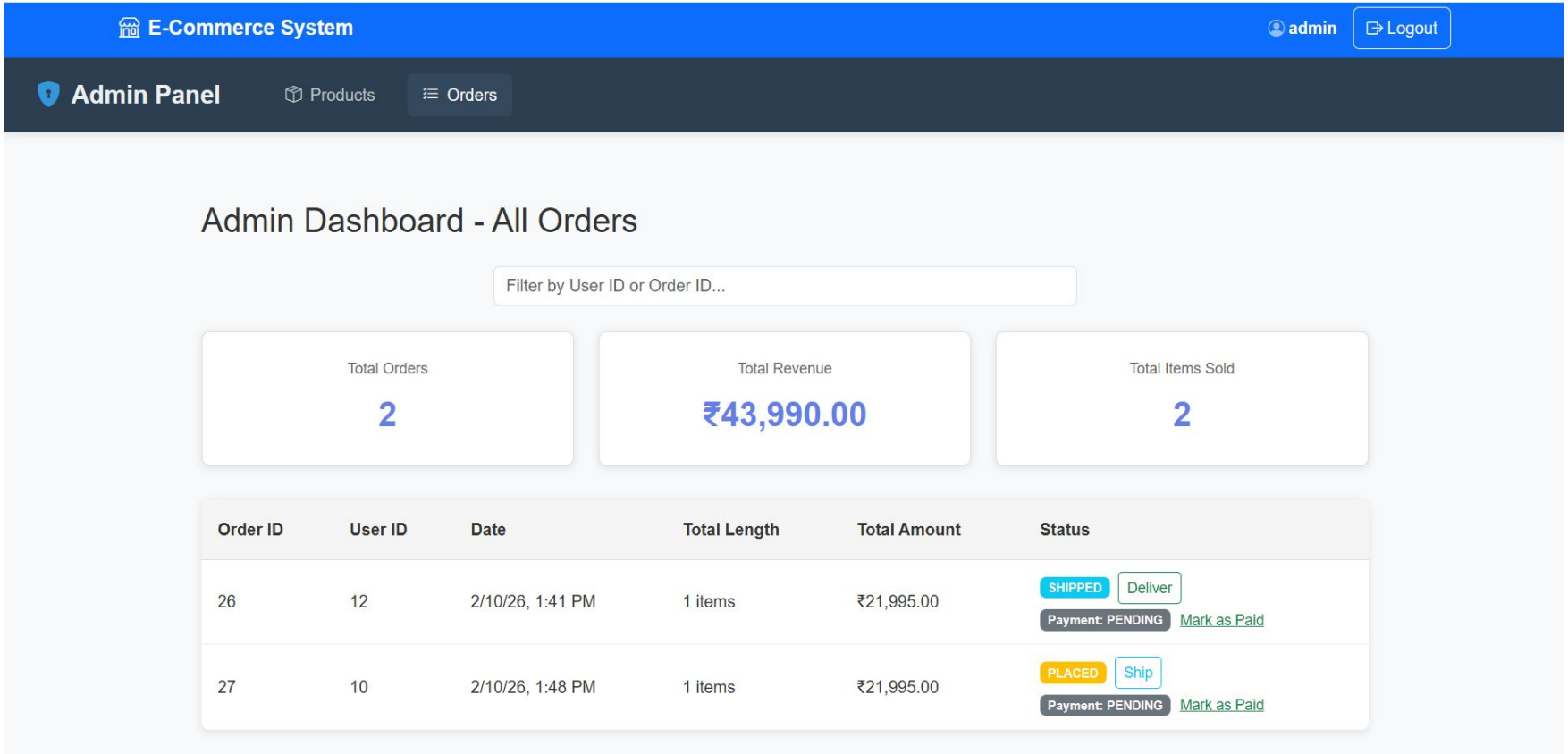
Admin Dashboard:



2024 - RPS Consulting all rights reserved

General - RPS

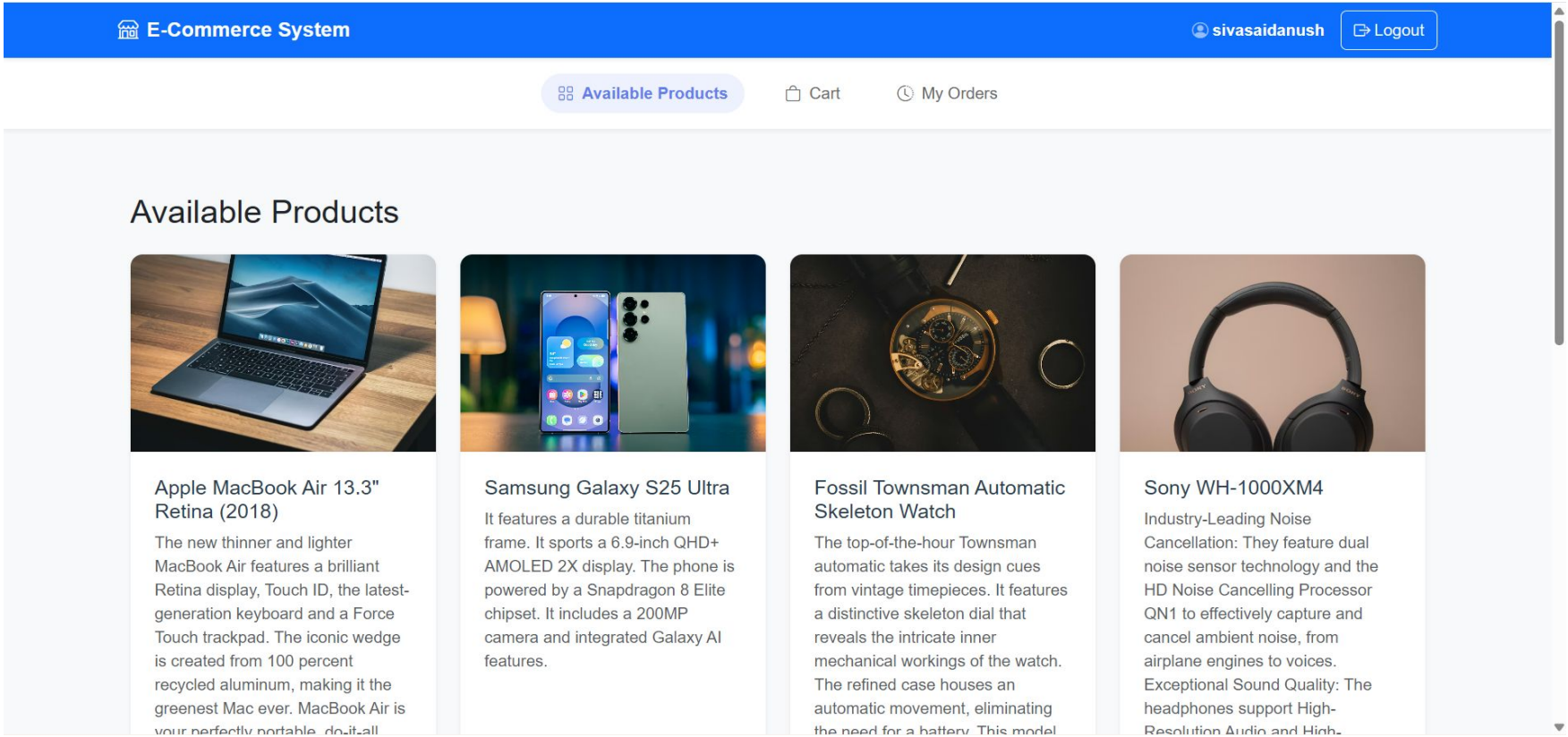
Admin Dashboard:



2024 - RPS Consulting all rights reserved

General - RPS

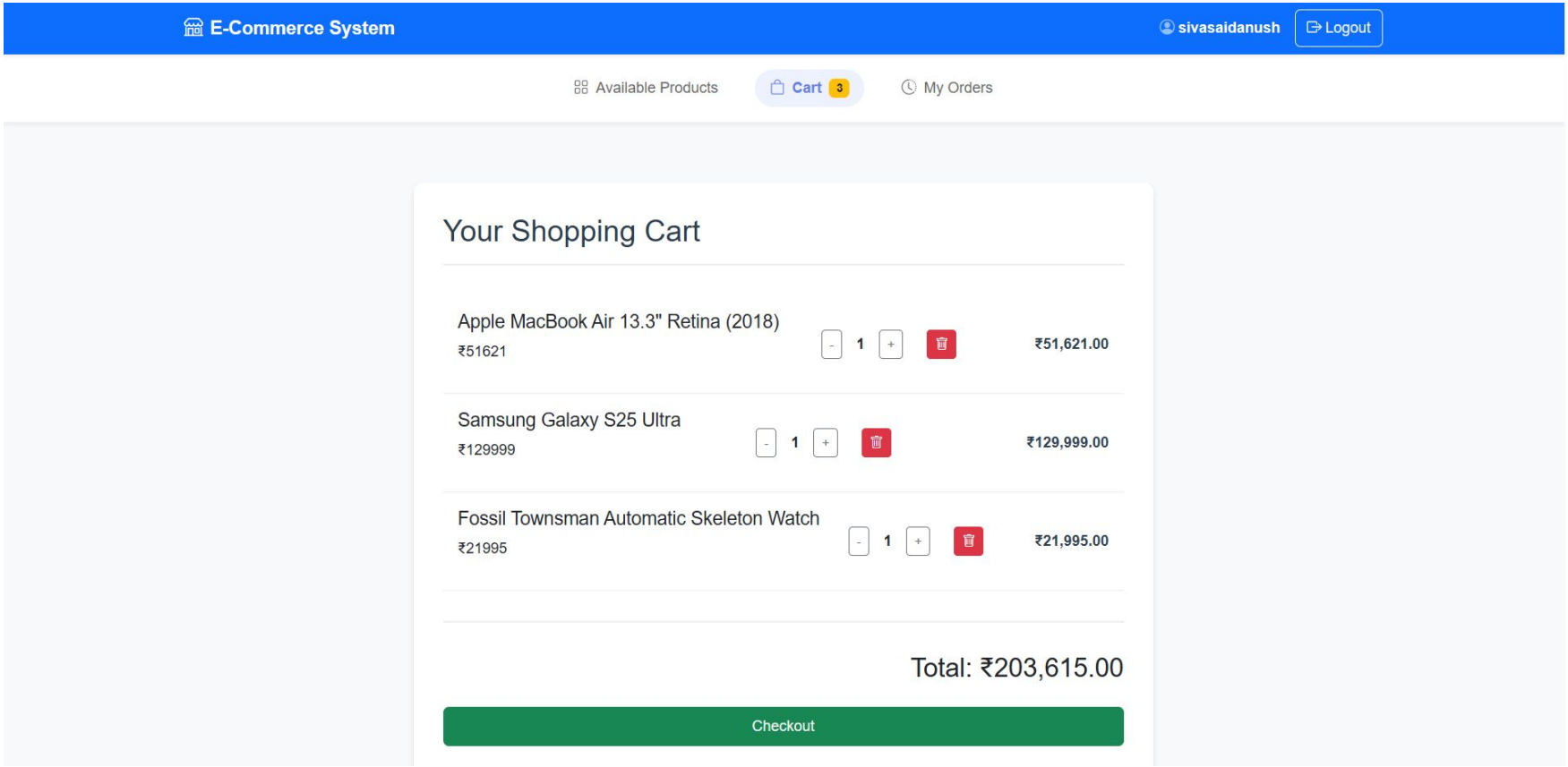
User Dashboard:



2024 - RPS Consulting all rights reserved

General - RPS Data

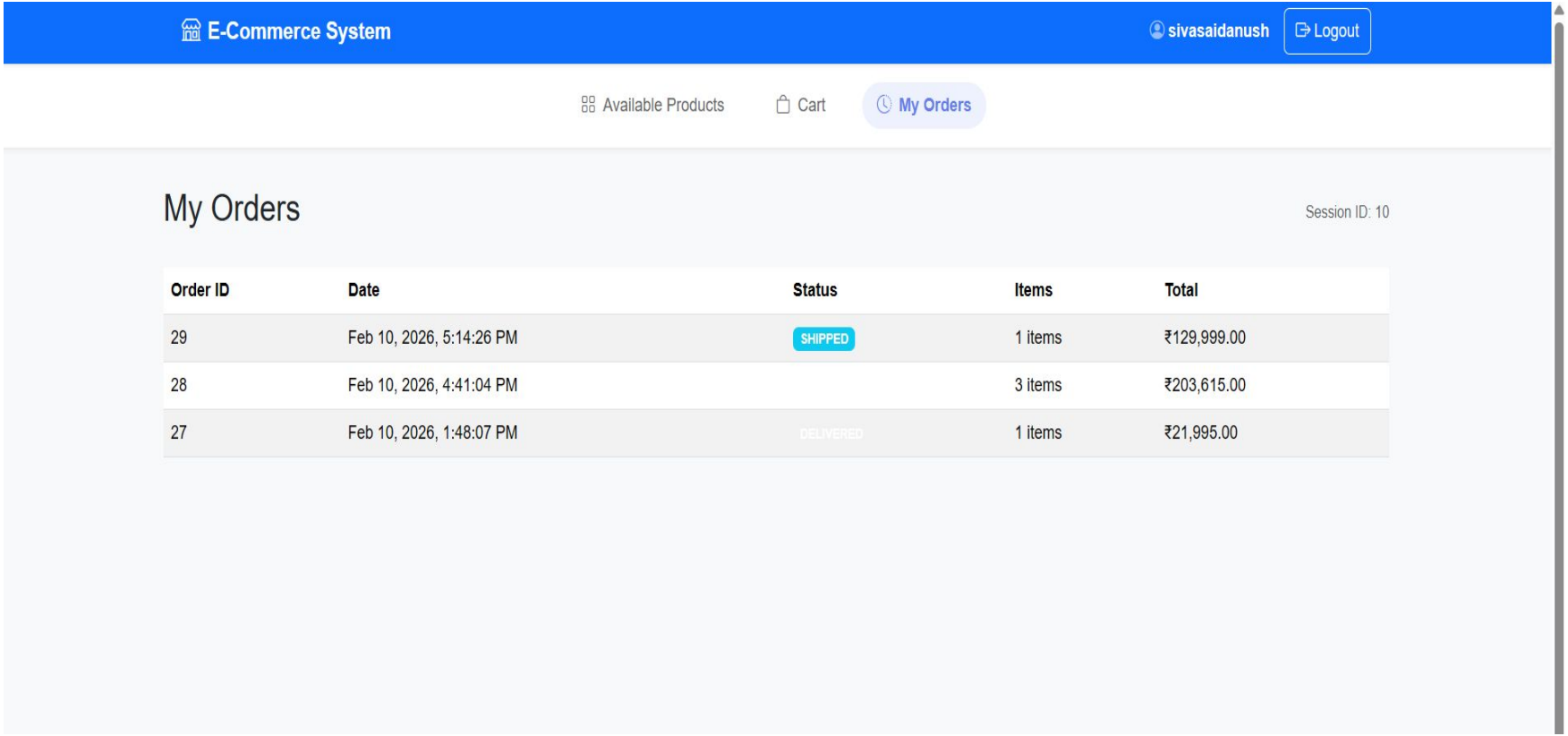
User Dashboard:



2024 - RPS Consulting all rights reserved

General - RPS
Data

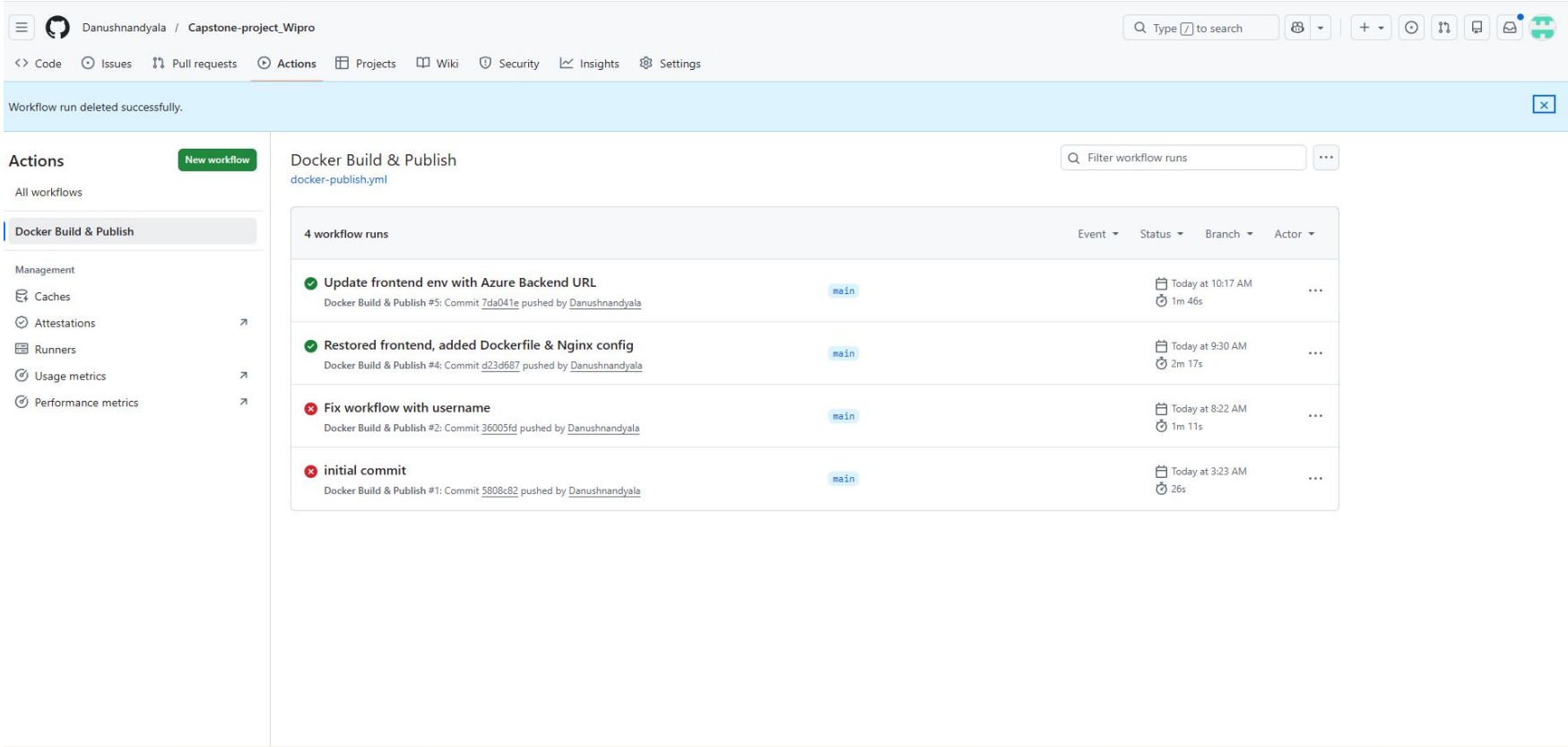
User Dashboard:



2024 - RPS Consulting all rights reserved

General - RPS

Git Deployment:



2024 - RPS Consulting all rights reserved

Outcome:

- Full-Stack Proficiency: Successfully built and integrated a complete web application using Angular (Frontend) and Spring Boot (Backend).
- Scalable Deployment: Demonstrated cloud readiness by deploying the system on Azure App Service, ensuring accessibility and high availability.
- Secure Architecture: Implemented Role-Based Access Control (RBAC) to secure sensitive administrative data while providing a seamless shopping experience for users.
- Real-World Simulation: Delivered a functional E-Commerce platform that handles the complete order lifecycle, solving practical business requirements.

2024 - RPS Consulting all rights reserved

General - RPS
Data

Conclusion:

- **Mission Accomplished:** The project successfully delivers a robust, end-to-end E-Commerce solution, bridging the gap between product management and customer satisfaction.
- **Modern Architecture:** By leveraging Angular, Spring Boot, and Azure, the system is built on industry-standard technologies that ensure performance, security, and scalability.
- **Future-Ready:** The modular design allows for easy integration of advanced features like AI-driven recommendations and multiple payment gateways in future updates.
- **Closing thought:** "This project not only solidified my full-stack development skills but also provided a scalable platform ready for real-world deployment."

2024 - RPS Consulting all rights reserved

General - RPS Data