

RewardReady

Sprint 3 Progress Report



Anurag Saroha, Ayush Sahay, Diego Espinoza,
Jackson Prillaman, Jacob Kubik, Rohit Rane

Context & Background

What is RewardReady?

- Web-based application
- Maximize your savings
 1. Find deals and coupons
 2. Get credit and loyalty card recommendations

Who is it for?

- Owns multiple cards
- Looking to maximize rewards
- Looking for coupons or deals

What does it offer?

- Personalized rewards based on users
- Flexibility in different ways to save

Project Focus

Project Goals



- Register users
- Store card types
- Provide coupons
- Display current sales and deals

Target Users



- Built to serve any consumer/ user who wishes to look for deals or coupons related to a merchant store
- Student/People on a tight budget
- Online Shoppers
- Looking to maximize rewards over multiple cards

Functions & Features


Main Functions

- Register User
- Sign-in User
- User Survey
- User Input Card
- Provide Latest Deals
- Provide Latest Coupons
- Redirect to Store Sites

Unique Features

- Regular and discount price comparison
- One app reward management
- Search functionality for relevant deals
- Credit and reward card tracking
- Personalization of deals and coupons based on stores you like
- User history tracking to remember deals and coupons clicked on

Tools & Technologies

- IDE : Visual Studio Code 
- Programming Languages
 1. Backend Development : Node.js 
 2. Frontend Development : React 
- Database Management System : MySQL 
- API Development tool : Postman 
- Infrastructure Management : Docker 
- Application Deployment : Kubernetes 
- Design
 1. Whimsical 
 2. Figma 
 3. Tailwind 
- Project Management : Gitlab 
- Team communication : Discord 

System Design

Technical Details



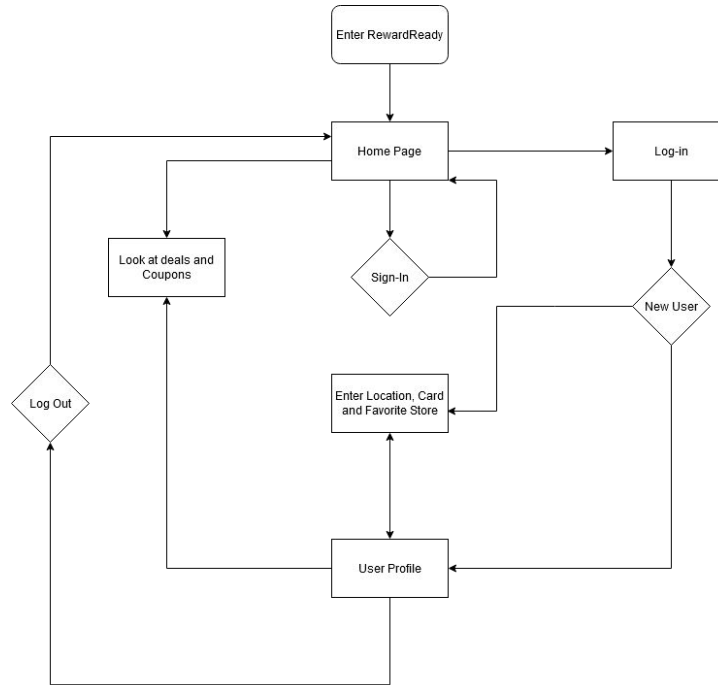
- ExpressJS backend
- JWT tokens for authentication
- Varying APIs for data collection
- MySQL database using Sequelize
- Encryption for sensitive data
- React frontend
- Redux for state management
- Tailwind for design

Design Choices



- Model-view-controller (MVC)
- UI with accessibility in mind
- Secure backend API

System Design



Challenges & Solutions

Challenges	Solutions
Managing interdependent user stories	Increased coordination between backend and frontend team
Navigating convoluted user stories	Designing better stories
Too many stories with a specific framework/specialization required	Increased training time
Unforeseen issues in the development process	Planning for potential future problems ahead of time
Time Management	Increased team meetings and working hours

Project Demonstration

<https://rewardready.discovery.cs.vt.edu/>

Reflection & Retrospective

Reflection

- Our team learned a lot about React, Node, and SQL
- Good communication throughout the project
- Project needs and stories change as development progresses
- Gained practical knowledge about software development cycle

Retrospective

- Avoid functionality replication in multiple stories
- Better completion conditions for stories
- Stories should be broken down into less complex tasks
- Better time estimation on stories
- Pair Programming to further improve team collaboration and task management

Future Direction

- Use paid APIs to extract even more deals and Coupons, along with automatic frequent updates.
- Currently only goods related Coupons and deals are being displayed. Additional and separate section for food and restaurants related information can be added. Highly applicable for fast food chains like Mcdonalds and Subway with frequent deals.
- Loyalty reward system can be added to encourage customers to use the RewardReady website over competitors. Can use it to provide early access to certain deals and coupons during holiday season sales.
- Potential tie-up with local and smaller stores to increase area traffic.