

PlantPalaceX - הצעת פרויקט

Project Proposal: PlantPalaceX - The Ultimate Movie Review Platform

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Executive Summary

PlantPalaceX is a modern e-commerce platform built specifically for plant lovers and indoor gardening enthusiasts. The platform allows users to browse and purchase a wide variety of plants, tools, and accessories. With personalized recommendations, user reviews, and a powerful admin panel, PlantPalaceX ensures both a smooth shopping experience and efficient backend management. It leverages AWS cloud services to create a scalable, reliable, and serverless infrastructure.

What does the project do and why is it needed?

PlantPalaceX is a serverless AWS-powered e-commerce platform for plant lovers, offering secure shopping, real-time inventory, and admin control. It improves scalability, reduces costs, and provides smart features like personalized recommendations, notifications, and analytics—ideal for growth-focused businesses and investors.

Problem:

Many plant enthusiasts struggle to find reliable online platforms that offer healthy plants, accurate care information, and trustworthy reviews. Business owners often lack the tools to manage inventory, orders, and customer feedback efficiently in the cloud.

Solution:

PlantPalaceX bridges this gap with a seamless online platform where users can explore plant types, get personalized recommendations, and make secure purchases. Admins get a dedicated panel to manage inventory, view analytics, and respond to customer activity—all powered by AWS cloud services.

Key Features

• Home Page Feed:

- o Displays featured products, seasonal picks, and bestsellers.
- o Users see plant images, names, prices, care level, and reviews.

- **Search & Filters:**

- o Search by plant name, category (indoor, outdoor, cactus, etc.), sunlight/water needs.
- o Filter by price, rating, popularity, and care level.

- **User Profile:**

- o View order history, wishlists, and personal reviews.
- o Edit account info and track delivery statuses.

- **Product Reviews:**

- o Customers can rate products and leave feedback with photos.
- o Reviews can be liked, reported, or replied to.

- **Admin Panel:**

- o Manage products (add/update/delete), view orders, and monitor stock.
- o View customer reviews, ban/report users, send promotions.
- o Access real-time sales and customer behavior analytics.

Solution and Tools/Technologies

PlantPalaceX will utilize modern cloud-based technologies, leveraging AWS services to build an efficient, secure, and highly scalable system. It will be implemented using a serverless and event-driven architecture:

1. **AWS Lambda:**

Serverless compute for processing user requests like placing orders, updating inventory, or posting reviews.

2. **Amazon DynamoDB:**

NoSQL database to store user data, product info, orders, and reviews with high scalability.

3. **Amazon S3:**

Stores product images, review images, and static frontend assets securely and durably.

4. **Amazon Cognito:**

Handles authentication, authorization, and user roles (User/Admin) securely.

5. **AWS API Gateway:**

Serves as the entry point for frontend-backend communication, handling RESTful API calls efficiently.

6. **Amazon SNS:**

Sends order status notifications, restock alerts, and promotional messages to users and admins.

7. **AWS CloudWatch:**

Monitors application performance, logs Lambda function errors, and sets up alerts for unusual behavior.

8. **Amazon ElastiCache (Redis):**

Caches frequently accessed data like product listings, user carts, and popular items to improve performance.

9. **Cost Explorer:** Tracks AWS usage for budget management