Recipe Sharing System

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**Architecture Diagram**

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**Project Description:**

Key Features:

Recipe Upload: Users can easily upload their own recipes to the platform.

Recipe Discovery: Users can explore a diverse range of recipes uploaded by others.

Follow Functionality: Users can follow their favorite recipe creators.

Personal Recipe Collection: A personalized section for each user to view and manage their uploaded recipes.

Benefits:

Community Interaction: Promotes a community-driven platform for culinary enthusiasts to interact and share ideas.

Enhanced Learning: Users can learn and experiment with various cuisines and cooking techniques.

Building Connections: Users can connect with like-minded individuals who share a passion for cooking.

Technical Overview:

Web Application: Accessible from desktop.

Backend: Utilizes a robust system for data storage and user management.

User Authentication: Secure user authentication and authorization mechanisms.

Database: Efficiently stores recipe data and user information.

Future Scope:

Social Features Expansion: Enable likes, comments, and recipe sharing within the platform.

User Ratings: Implement a rating system for recipes to enhance community engagement.

Advanced Search: Facilitate easy recipe discovery based on ingredients and preferences.

Mobile App: Develop a dedicated app for a seamless user experience on smartphones and tablets.

Conclusion:

RecipeShare aims to be a dynamic platform that brings together culinary enthusiasts, allowing them to share their creativity, explore diverse cuisines, and foster a thriving recipe-sharing community.

**Services Used**

* AWS Lambda - AWS Lambda is a serverless, event-driven compute service that lets you run code for virtually any type of application or backend service without provisioning or managing servers.
* AWS EC2 - Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud.
* AWS SES - Amazon Simple Email Service (SES) is a cost-effective, flexible, and scalable email service that enables sending mail from within any application.
* AWS RDS - Amazon Relational Database Service (Amazon RDS) is a collection of managed services that makes it simple to set up, operate, and scale databases in the cloud.
* AWS S3 - Amazon S3 is a scalable object storage service that allows you to store and retrieve any amount of data from anywhere on the web.
* AWS API Gateway - AWS API Gateway is a fully managed service that makes it easy for developers to create, publish, maintain, monitor, and secure APIs at any scale.

AWS Lambda:

AWS Lambda is a serverless, event-driven compute service that lets you run code for almost any kind of application or backup service without setting up or handling servers.

Run code without setting up machinery or controlling it. Just write your code and send it as a.zip file or a picture with a container.

Respond automatically to calls to run code at any size, from a few per day to hundreds of thousands per second.

Instead of setting up infrastructure ahead of time for high capacity, you can save money by only paying for computing time you use, per millisecond.

With the right function memory size, you can optimize the time it takes to run code and how well it works. With Provisioned Concurrency, you can respond to high demand in less than 10 milliseconds.

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**AWS SES:**

Amazon Simple Email Service (SES) is a cheap, flexible, and scalable email service that lets writers send mail from any program. You can quickly set up Amazon SES to support a variety of email use cases, such as transactional, marketing, and group email messages. Amazon SES's flexible IP placement and email authentication choices help improve delivery and protect the sender's image, while sending analytics measure the effect of each email. With Amazon SES, you can send email safely, all over the world, and in large amounts.

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**AWS RDS:**

Amazon Relational Database Service (Amazon RDS) is a web service that makes it easier to set up, run, and grow a relational database in the cloud.

Amazon RDS makes managing relational databases easier by automating as much as possible.

Amazon RDS sets up various servers for high availability and in case one of them fails.

PostgreSQL, MySQL, Maria DB, Oracle, SQL Server, and Amazon Aurora can all be used with Amazon RDS.

Data is kept in Amazon RDS in the form of tables, records, and fields.

The values in one table can be linked to the values in another table. Relational systems are built around the idea of relationships.

Transactional and analysis data are often stored in relational systems.

Relational databases help transactional databases stay stable and reliable.

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**AWS EC2:**

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that gives you safe, scalable cloud computing power. It is meant to make it easy for writers to do web-scale cloud computing. Amazon EC2 has a simple web service interface that makes it easy to get and set up capacity. It gives you full power over your computer tools and lets you use Amazon's tried-and-true computing environment.

Amazon EC2 gives you the most options for your processor, storage, networking, operating system, and how you want to buy it. We have the fastest computers and the only 400 Gbps internet networking in the cloud. We have the most powerful GPU instances for machine learning training and graphics tasks and the lowest cost-per-inference instances in the cloud. AWS is the cloud that runs the most SAP, HPC, Machine Learning, and Windows tasks.

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**AWS S3**

Amazon S3 is a service for storing and retrieving any amount of data from anywhere on the web. It is very stable and scalable. With a simple web service interface, it is easy to set up and gives you full power over your data. This makes sure you are working in a safe and tried-and-true setting. Amazon S3 has a lot of choices for storage, access, and pricing, which makes it the best cloud storage service for a wide range of uses, from small-scale applications to large-scale jobs.

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**Remix (React Web Framework):**

Remix is a full-stack web framework that combines front-end and back-end development processes seamlessly. Its unique architecture enables efficient server-side rendering (SSR), faster page loads, and improved search engine optimization (SEO) capabilities. Remix's file-based routing system and built-in code splitting enhance development productivity and application performance, making it a compelling choice for modern web applications.

One standout feature of Remix is its ability to define route handlers for server-side logic and data fetching. This data loading mechanism, powered by "loader functions," ensures optimal data availability and enriches user experiences. Remix also provides a comprehensive set of utilities for authentication and authorization, streamlining the process of securing web applications and managing user access effectively.

Despite its relatively new status, Remix has gained significant attention in the developer community due to its active ecosystem and ongoing community contributions. With a wealth of plugins, extensions, and support, Remix has the potential to streamline development workflows and deliver exceptional web applications.

**User Interface:**

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**A computer screen shot of a plate of pasta

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