PARSHVANATH CHARITABLE TRUST'S

A.P. Shah Institute of Technology

Thane, 400615

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Department of Computer Engineering

CSL605 SKILL BASED LAB COURSE: CLOUD COMPUTING

Mini Project Report

- **Title of Project** : KwikEats (Hotel Management)
- **Year and Semester** : T.E. (Sem VI)
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PROBLEM DEFINITION:

Traditional hotel management systems often involve manual, paper-based processes for tasks such as booking reservations, managing room inventory, tracking guest information, and generating reports. This can lead to several issues:

Inefficiency: Manual processes can be time-consuming, prone to errors, and make it challenging to access and update information in real-time.

Limited Visibility: Paper-based systems make it difficult to obtain a comprehensive, up-to-date view of hotel operations, making it harder to make informed decisions and identify areas for improvement.

Poor Customer Experience: Guests may experience slower check-in/check-out processes, difficulty in accessing their reservation information, and limited self-service options.

Lack of Automation: Traditional systems often lack features for automating routine tasks, such as room assignment, billing, and guest communication, which can further contribute to inefficiencies.

Data Silos: Disparate systems and manual processes can lead to data being stored in silos, making it difficult to generate comprehensive reports and analyze hotel performance.

INTRODUCTION:

In the fast-paced and competitive hospitality industry, hotels are constantly seeking ways to streamline their operations, enhance the guest experience, and drive profitability. The traditional, paper-based approaches to hotel management often fall short in meeting the demands of modern travelers and the increasingly digital landscape.

Introducing KwikEats a hotel management system, a comprehensive, cloud-based solution designed to revolutionize the way hotels manage their day-to-day operations. This innovative application leverages the latest technologies to provide hotel operators with a centralized platform that seamlessly integrates all critical functions, from reservations and front desk management to housekeeping and reporting.

Key Features of KwikEats Application:

Food Search and Selection: The KwikEats application allows users to search for a wide variety of food options from different restaurants and hotels. Users can browse through menus, view dish descriptions, and select the desired quantity of each item.

Hotel Selection: After adding items to their cart, users can choose the hotel or restaurant from which they would like to place the order. The application displays relevant information about the selected hotel, such as its rating, cuisine, and delivery options.

Cart and Checkout: Users can view the items in their cart, adjust quantities as needed, and proceed to checkout. The application provides a seamless checkout process, allowing users to securely enter their payment information and place the order.

Payment Integration: KwikEats integrates with various payment gateways, such as Stripe, PayPal, or Apple Pay, to provide a secure and convenient payment experience for users. The application handles all the necessary payment processing and transaction management.

DESCRIPTION:

Cloud Services:

KwikEats is hosted on Amazon Web Services (AWS) to leverage the scalability, reliability, and security of the cloud. The key AWS services utilized in this project include:

AWS Elastic Beanstalk: The application is deployed and hosted on AWS Elastic Beanstalk, a fully managed service that handles the deployment, scaling, and monitoring of the web application. Elastic Beanstalk simplifies the process of provisioning and managing the underlying infrastructure, allowing the development team to focus on building the application.

Amazon Relational Database Service (Amazon RDS): The application's database is hosted on Amazon RDS, a managed database service that supports various database engines, including MySQL. Amazon RDS handles database administration tasks, such as software patching, automatic backups, and failover, ensuring the reliability and availability of the application's data.

Amazon Virtual Private Cloud (Amazon VPC): The application and database components are deployed within a private Amazon VPC, which provides a secure and isolated network environment. This ensures that the application's data and resources are protected from external access, enhancing the overall security of the system.

Methodologies Used:

The development of KwikEats follows an Agile software development methodology, specifically the Scrum framework. Scrum promotes iterative and incremental development, with a focus on collaboration, continuous improvement, and delivering value to the customer.

Scrum Workflow: The development team follows the Scrum workflow, which includes Sprint Planning, Daily Standups, Sprint Reviews, and Sprint Retrospectives. This approach allows the team to adapt to changing requirements, prioritize features, and continuously improve the application.

Software Requirements:

The Hotel Management Application has the following software requirements:

Front-end Technologies:

- HTML5, CSS3, and JavaScript for building the user interface

Back-end Technologies:

- PHP as the primary server-side language

Database:

- MySQL as the relational database management system
- Integration with Amazon RDS for database hosting and management

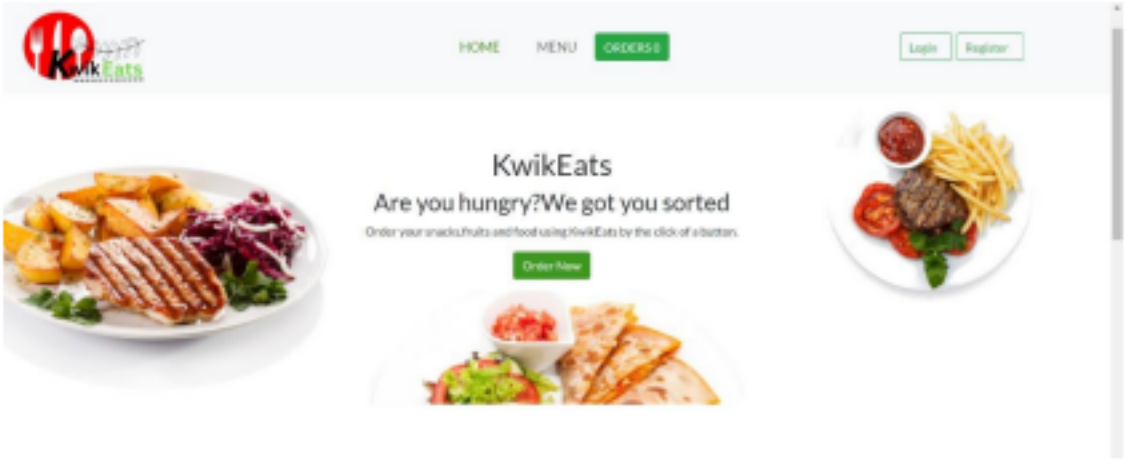
KwikEats leverages the power of AWS cloud services, such as Elastic Beanstalk, Amazon RDS, and Amazon VPC, to provide a comprehensive and scalable solution for hotels. By employing an Agile development approach and a robust set of software technologies, the application aims to streamline hotel operations, enhance the guest experience, and drive business growth.

IMPLEMENTATION:

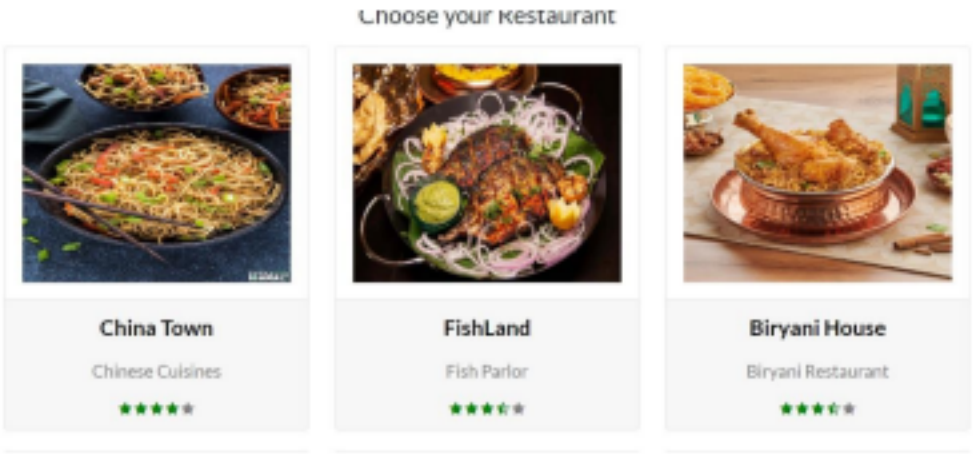
1. Register Page

2. Login Page

3. Home Page



4. Selecting Restaurant



LEARNING OUTCOME:

After using the KwikEats application, users will be able to:

Efficiently Search and Discover Food Options: Utilize the application's intuitive search and filtering capabilities to quickly find food items from a diverse selection of restaurants and hotels based on their preferences, dietary requirements, and cravings.

Customize and Place Orders Effortlessly: Seamlessly add desired food items to the cart, adjust quantities, and select the preferred hotel or restaurant for delivery, ensuring a streamlined and hassle-free ordering experience.

Securely Complete Transactions: Leverage the application's integrated payment gateways to securely and conveniently make payments, providing users with peace of mind during the checkout process.

Track Order Status in Real-time: Monitor the preparation and delivery progress of their orders within the KwikEats app, enabling them to plan their meals and activities accordingly.

Enjoy Personalized Recommendations: Leverage the application's personalization features to receive tailored food suggestions based on their past orders and preferences, expanding their culinary horizons and discovering new favorite dishes.

Participate in Loyalty Programs: Actively engage with the KwikEats loyalty program to earn rewards, redeem offers, and unlock exclusive benefits, fostering a sense of loyalty and enhancing the overall user experience.

By achieving these learning outcomes, users will be able to efficiently find, order, and enjoy their desired food options, while also benefiting from the application's personalized features and rewards programs, ultimately enhancing their overall dining experience