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**Project Report
on**

**“INSURANCE CUSTOMER LEAD COLLECTION AND REVIEW
SYSTEM”**

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ABSTRACT

This project report presents an in-depth analysis of an Insurance Domain Web Application designed to optimize customer lead capture and improve user experience within the insurance industry. The web application encompasses an admin dashboard and a user portal, providing key functionalities such as efficient lead generation, personalized product recommendations, comprehensive customer profiles, product previews, and user review collection.

The application is built as a responsive web platform, ensuring seamless access and compatibility across various devices including desktops and mobile devices. The development process adheres to industry best practices, focusing on clean and well-documented code, robust security measures, high performance, and effective version control.

The admin dashboard empowers administrators with real-time insights, showcasing essential data such as the number of registered users, reviews, and leads. Visual charts represent lead distribution by category, enabling administrators to make informed decisions. The dashboard also offers data export capabilities for further analysis.

The user portal provides customers with a user-friendly interface, featuring a streamlined login process and personalized product recommendations based on their preferences. Users can explore different insurance products, access detailed information, and leverage valuable customer reviews. The registration process includes a comprehensive customer lead capture form, collecting essential information, and assessing the user's existing insurance coverage through a questionnaire.

The application prioritizes an intuitive and engaging user interface, combining visually appealing design with a seamless user experience. APIs are integrated to leverage external data sources, enhancing the accuracy and depth of product recommendations and other functionalities.

Throughout development, security and performance have been paramount. The project follows best practices to safeguard user data and ensure optimal performance, meeting industry standards. Version control has been implemented to manage code changes effectively, facilitating collaboration and traceability.

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE NO
1	INTRODUCTION	1
2	FUNCTIONAL REQUIREMENTS	2
3	TECHNICAL DETAILS	5
3.1	JSP	5
3.2	HTML	6
3.3	CSS	7
3.4	JS	8
3.5	JAVA	9
4	IMPLEMENTAION	10
4.1	ADMIN DASHBOARD	10
4.2	USER PORTAL	11
5	RESULT AND DISCUSIONS	14
6	CONCLUSION AND FUTURE ENHANCEMENT	15
	REFERENCES	18

CHAPTER 1

INTRODUCTION

This report provides an overview of our project, an Insurance Domain Web Application, designed to streamline customer lead capture and enhance user experience in the insurance industry. The primary objective of this web application is to facilitate efficient lead generation, offer personalized product recommendations, build comprehensive customer profiles, enable product previews, and collect valuable user reviews.

The project encompasses a responsive web application that caters to both desktop and mobile devices, ensuring accessibility and usability across various platforms. Our development approach adheres to industry best practices, prioritizing clean and well-documented code, robust security measures, optimal performance, and version control for effective codebase management.

The Insurance Domain Web Application consists of two main components: an admin dashboard and a user portal. The admin dashboard empowers administrators with real-time insights, presenting data such as the number of registered users, reviews, and leads, along with visually informative charts showcasing lead distribution by category. Additionally, the dashboard offers data export capabilities, enabling the extraction of valuable information for further analysis.

The user portal serves as a centralized hub for customers, providing a seamless login process and presenting them with product recommendations based on their preferences. Users can explore different insurance products, access product details, and benefit from the experience shared through customer reviews. The registration process involves a customer lead capture form, requiring essential details like name, email, and password, in addition to a questionnaire that assesses the user's existing insurance coverage.

To ensure an intuitive and engaging user interface, our team has focused on delivering a visually appealing design coupled with a seamless user experience. The application incorporates APIs to leverage external data sources, enhancing the depth and accuracy of product recommendations and other functionalities. Throughout the development process, we have prioritized security and performance, adhering to best practices to safeguard user data and deliver a smooth and responsive experience. By adopting version control, we have effectively managed code changes, ensuring seamless collaboration and traceability.

CHAPTER 2

FUNCTIONAL REQUIREMENTS

Objective

The objective of this project is to develop a customer lead generation and review system that will help the insurance company to identify and qualify potential customers, as well as track and manage the progress of leads through the sales process. This system will improve the efficiency and effectiveness of the sales process by automating tasks and providing the sales team with the information they need to close more deals. The system will also help the insurance company to improve its customer acquisition process, increase its sales efficiency, reduce its sales costs, and increase its revenue.

Features Supported in Application:-

Functions available for Admins are as follows:

1. Access to lead collection analytics
2. Export lead collection data into a .csv file
3. Access to review analytics

Functions available for Users are as follows:

1. View Policies
2. Submit a review for a specific policy.
3. View other's review
4. Access to customer lead generation form

Features for Admin:

Login > Dashboard > Views Lead Data Analytics

OR

Login > Dashboard > Views Lead Data Analytics >Export Data

OR

Login > Dashboard > Views Review Analytics

The dashboard page provided for the admins to view a dashboard that provides information about the system, such as the number of users, the number of reviews, and the category chart with the number of leads.

Field Name	Description
Export Data	Allows the admins to export data into a .csv file
Lead Data Analytics	Allow the admin to view analytics related to lead data collected
Review Analytics	Allow the admin to view analytics related to reviews collected

Admin Interactions:

1. To Export Data, select the Leads option in the dashboard.

All the related fields will appear on the screen as a table which can be downloaded by clicking on the Export data button.

2. To View Lead Data Analytics, select the Leads option in the dashboard.

All the details will appear on the screen and at the top of the table Number of Leads is Shown.

3. To View Review Analytics, select the Reviews option in the dashboard.

All the details will appear on the screen and at the top of the table Number of Reviews is Shown.

Click **Back to Dashboard** to navigate back to the dashboard

Features for Users:

Home Page >View Policies

OR

Home Page >View Policies > View Reviews

OR

Home Page > Sign In > View Policies > View Reviews >Submit Review

OR

Home Page > Sign Up > Customer Lead Generation form >Sign In > View Policies > View Reviews

>Submit Review

When the opens the application, the user will be displayed on the home page. From here users can find different policies available and can view details of a specific policy by navigating to it or also can view reviews if available.

From the home page user can sign in to submit reviews

From the home page, if the user is new, he/she can sign up and fill out the questionnaire to get personalized recommendation from the sales team.

Field Name	Description
View Policies	Display a list of available policies.
View Reviews	Displays all available reviews.
Policy Specific Page	Display all the information about the policy.
Submit Review	Allows the user to submit his/her reviews.
Customer Lead Generation Form	Allow users to file questionnaires using which users can get personalized recommendations.

User's Interactions:

1. To View Policies, Open the application. This will take the user to the dashboard, where a list of policies available are shown.
2. To View Reviews, user can navigate to selected policy and can get a list of reviews.
3. To View Policy Details, Click the specific policy to View Detailed information about the policy.
4. To Submit Review, User my be signed in and can navigate to selected policy and can submit a review.
5. To Submit Customer Lead Generation Form, A new user must sign up and will be navigated to a questionnaire which the user must answer.

Click **Back to Home** to navigate back to the Home.

Click **Logout** to logout.

CHAPTER 3

TECHNICAL DETAILS

3.1 JSP

JSP (Java Server Pages) is a technology that allows the creation of dynamic web pages by combining HTML or XML with Java code. It provides a way to separate the presentation logic from the business logic in web applications. Here are some key points about JSP:

1. Dynamic Content Generation:

- JSP allows the inclusion of Java code within HTML or XML markup.
- The Java code can be used to generate dynamic content, retrieve data from databases, perform calculations, or interact with other components of the web application.

2. Server-Side Processing:

- JSP files are processed on the server-side and converted into servlets before being executed.
- The servlet container compiles the JSP files into Java servlets, which are then handled by the servlet engine to generate the final HTML output.

3. Tag-Based Syntax:

- JSP uses both standard HTML/XML tags and JSP-specific tags.
- Standard tags are used for creating HTML structure, while JSP tags provide additional functionality and control over dynamic content generation.

4. Directives:

- JSP includes directives that provide instructions to the container for processing the JSP files.
- Common directives include the ``page`` directive for setting page-level attributes, the ``include`` directive for including other files, and the ``taglib`` directive for importing custom tag libraries.

5. Expression Language (EL):

- JSP supports EL, which provides a simplified way to access and manipulate data within JSP pages.

- EL expressions are embedded within `\${...}` and can access variables, request parameters, session attributes, and more.

3.2 HTML

HTML (Hypertext Markup Language) is the standard markup language used for creating web pages and web applications. It defines the structure and content of a webpage, allowing browsers to interpret and display the information to users. Here are some key points about HTML:

Document Structure:

HTML documents have a hierarchical structure defined by tags.

The basic structure consists of an opening `<html>` tag and a closing `</html>` tag, with the content contained within the `<body>` tags.

Tags and Elements:

HTML uses tags to define elements and their characteristics.

Tags are enclosed in angle brackets, such as `<tagname>content</tagname>`.

Examples of common tags include `<p>` for paragraphs, `<h1>` to `<h6>` for headings, `<a>` for links, and `` for images.

Attributes:

Tags can have attributes that provide additional information or modify their behavior.

Attributes are specified within the opening tag, using the format `attributeName="value"`.

For example, the `<a>` tag has an `href` attribute that specifies the URL of the link.

Semantic Elements:

HTML5 introduced semantic elements that convey the meaning of the content.

Semantic elements, such as `<header>`, `<nav>`, `<main>`, `<section>`, and `<footer>`, provide a clearer structure and improve accessibility.

3.3 Cascading Style Sheets (CSS):

CSS (Cascading Style Sheets) is a styling language used to describe the presentation and appearance of HTML (or XML) documents. It provides a way to define the visual aspects of web pages, including layout, colours, fonts, and other stylistic elements. Here are some key points about CSS:

1. Selectors and Declarations:

- CSS uses selectors to target HTML elements that need to be styled.
- Selectors can be based on element types, class names, IDs, attributes, or their relationships within the document structure.
- Declarations are used to define the styles applied to selected elements, such as colors, fonts, margins, and padding.

2. Styling Techniques:

- CSS offers various styling techniques, including:
 - Box Model: Controlling the dimensions and spacing of elements using properties like width, height, margin, padding, and border.
 - Typography: Modifying font properties such as size, family, weight, style, and text alignment.
 - Colors and Backgrounds: Setting background colors, images, gradients, and text colors.
 - Layout: Positioning and arranging elements with properties like display, float, positioning, and flexbox/grid layouts.
 - Transitions and Animations: Applying smooth transitions and animations to elements using CSS properties.

3. CSS Selectors:

- CSS provides a wide range of selectors for targeting specific elements or groups of elements.
- Selectors include element selectors, class selectors, ID selectors, attribute selectors, pseudo-classes, and pseudo-elements.
- Combining selectors using combinators allows for more specific targeting of elements.

4. CSS Cascade and Specificity:

- The cascade refers to the order in which CSS rules are applied to elements.
- Specificity determines which styles take precedence when multiple rules target the same element.

- Specificity is calculated based on the selector type and its components.

5. External Stylesheets and Inline Styles:

- CSS can be applied externally using linked stylesheets, where CSS rules are stored in separate .css files and linked to HTML documents using the `<link>` element.
- Inline styles can be added directly within HTML elements using the `style` attribute.

3.4 JavaScript (JS)

JavaScript (JS) is a high-level, interpreted programming language primarily used for developing interactive and dynamic web pages. It is one of the core technologies of the World Wide Web and enables the implementation of various functionalities and interactivity on websites.

Key Features of JavaScript:

Client-side Scripting: JavaScript is mainly used as a client-side scripting language, running directly in the web browser of the user. It enables dynamic updates, form validations, and interactive content without requiring server-side communication.

Interactivity and Event Handling: JavaScript allows developers to respond to user actions and events such as clicks, mouse movements, keyboard input, and form submissions. It facilitates the creation of responsive and interactive web applications.

DOM Manipulation: The Document Object Model (DOM) represents the structure of HTML or XML documents. JavaScript provides powerful tools and methods to manipulate and interact with the DOM, allowing developers to dynamically modify the content, style, and structure of web pages.

Cross-platform Compatibility: JavaScript is supported by all major web browsers, making it a universal language for web development. This enables developers to create web applications that work consistently across different platforms and devices.

Flexibility and Extensibility: JavaScript is a versatile language that supports various programming paradigms, including procedural, object-oriented, and functional programming. It offers flexibility in terms of code organization and allows developers to extend its functionality through libraries and frameworks.

3.5 JAVA

Java is a popular, general-purpose programming language that was first released by Sun Microsystems in 1995. It was designed to be platform-independent, meaning that Java programs can run on any device or operating system that has a Java Virtual Machine (JVM) installed. This characteristic, along with its object-oriented nature, has contributed to Java's widespread adoption and versatility.

Key Features of Java:

Object-Oriented: Java follows the principles of object-oriented programming (OOP), which organizes code into reusable objects that interact with each other. This approach promotes modularity, code reusability, and easier maintenance.

Platform-Independent: Java programs are compiled into bytecode, which can be executed on any system that has a JVM. This "write once, run anywhere" capability allows Java applications to run on different platforms without modification.

Strong Memory Management: Java manages memory automatically through a process called garbage collection. Developers do not have to manually allocate or deallocate memory, reducing the risk of memory leaks and improving overall program stability.

Robust Standard Library: Java comes with a comprehensive standard library, known as the Java Development Kit (JDK), which provides a wide range of classes and methods for various purposes. This extensive library simplifies common programming tasks, such as input/output operations, networking, and multithreading.

Exception Handling: Java includes built-in exception handling mechanisms, which allow developers to catch and handle errors or exceptional events during program execution. This feature enhances the robustness and reliability of Java applications.

CHAPTER 4

IMPLEMENTAION

4.1 ADMIN DASHBOARD

The admin dashboard is a key component of our Insurance Domain Web Application, providing administrators with comprehensive insights and functionalities to effectively manage and monitor the platform. With a user-friendly interface and powerful features, the admin dashboard empowers administrators to make informed decisions and streamline operations.

Key Features:

User Registration and Analytics:

The admin dashboard provides an overview of the number of registered users, allowing administrators to track user growth and engagement. It also presents valuable analytics, including user demographics and engagement metrics, enabling administrators to assess the platform's performance and make data-driven decisions.

Review Management:

Efficient review management is crucial in the insurance domain. The admin dashboard offers a dedicated section to monitor and moderate user reviews. Administrators can review and approve user-submitted reviews, ensuring only relevant and authentic feedback is displayed to other users. This feature helps maintain the integrity of the platform and enhances trust among users.

Lead Generation Analysis:

With the help of intuitive charts and graphs, the admin dashboard provides a visual representation of lead generation across different categories. Administrators can gain valuable insights into which insurance products attract the most leads, enabling them to focus their marketing efforts and optimize conversions.

Data Export:

The admin dashboard allows administrators to export data for further analysis and reporting. This feature provides flexibility in extracting user information, leads data, and review analytics, facilitating comprehensive evaluations and strategic decision-making.

System Management and Notifications:

The dashboard includes system management capabilities, allowing administrators to manage user accounts, update product information, and configure application settings. Additionally, administrators receive notifications for important events, such as new user registrations, pending reviews, and system updates, ensuring they stay informed and can take prompt action when required.

Benefits:

Streamlined Operations:

The admin dashboard centralizes critical functionalities, making it easier for administrators to handle user management, review moderation, and system configuration. This streamlines administrative operations, saving time and effort while ensuring efficient management of the platform.

Data-Driven Decision Making:

Access to comprehensive analytics and visual representations empowers administrators to make data-driven decisions. By understanding user behavior, lead generation patterns, and user demographics, administrators can optimize marketing strategies, improve user experience, and enhance overall platform performance.

Enhanced User Trust:

Effective review management and moderation within the admin dashboard contribute to building user trust. Administrators can ensure that only genuine and relevant reviews are displayed, fostering transparency and credibility among users.

Scalability and Adaptability:

The admin dashboard is designed to accommodate future growth and adapt to evolving business needs. With a robust foundation, administrators can easily scale the platform, add new features, and incorporate emerging technologies, keeping the application relevant and competitive in the insurance industry.

4.2 USER PORTAL

The user portal within our Insurance Domain Web Application serves as the central hub for customers, offering a seamless and personalized experience.

User Registration and Login: The user portal provides a user-friendly registration process, allowing individuals to create an account with ease. By providing essential information such

as name, email, and password, users can quickly gain access to the portal's extensive functionalities. Once registered, users can log in securely using their credentials and access their personalized dashboard.

Personalized Product Recommendations: Leveraging advanced algorithms and user-provided information, the user portal offers personalized product recommendations tailored to each user's unique needs. By analysing factors such as existing insurance coverage, user preferences, and risk profiles, the portal suggests relevant insurance products, simplifying the decision-making process for users.

Product Display and Details: The user portal provides a comprehensive display of various insurance products available, allowing users to explore and compare offerings effortlessly. Each product is accompanied by detailed information, including coverage details, premium rates, and additional benefits.

Customer Reviews and Ratings: To assist users in evaluating insurance products, the user portal incorporates a robust customer review system. Users can access authentic reviews and ratings shared by other customers, enabling them to gauge the quality and reliability of different insurance offerings. This transparency fosters trust and empowers users to make informed decisions based on the experiences of their peers.

Streamlined Application Process: The user portal simplifies the insurance application process, providing users with a seamless and intuitive interface to submit their applications. By guiding users through a step-by-step process and automating form-filling where possible, we aim to minimize friction and enhance the efficiency of applying for insurance coverage.

Customer Lead Capture Form

The Customer Lead Capture Form is a fundamental component of our Insurance Domain Web Application, designed to gather essential information from potential customers interested in insurance products. This form serves as the entry point for users to register and provide relevant details, enabling us to effectively capture leads and tailor product recommendations based on their preferences.

The lead capture form comprises a user-friendly interface that ensures a seamless and intuitive experience for users. It includes fields for capturing essential information such as the user's name, email address, and password. By collecting this data, we can create personalized user profiles and establish effective communication channels with our customers.

In addition to the basic contact details, the lead capture form incorporates a comprehensive questionnaire. This questionnaire delves into the user's insurance needs and current coverage, presenting them with targeted questions such as ownership of a car or two-wheeler, existing term insurance, health insurance, or home insurance. By analysing these responses, we gain valuable insights into the user's insurance requirements, enabling us to provide highly relevant and customized product recommendations.

Our customer lead capture form is built with security and privacy in mind. We implement industry-standard encryption protocols to safeguard sensitive user information and ensure the confidentiality of their data. Furthermore, our system is designed to comply with data protection regulations, giving users peace of mind when sharing their personal details.

Upon completion of the lead capture form, users are seamlessly redirected to the user login page, where they can access their personalized account and explore the wide range of insurance products available. By efficiently capturing leads through this form, we can enhance our understanding of customer needs, streamline the product recommendation process, and deliver a highly personalized experience to each user.

The customer lead capture form plays a pivotal role in our Insurance Domain Web Application, acting as the initial touchpoint for potential customers and serving as the foundation for building strong customer relationships.

CHAPTER 5

RESULTS AND DISCUSIONS

5.1 Home Page

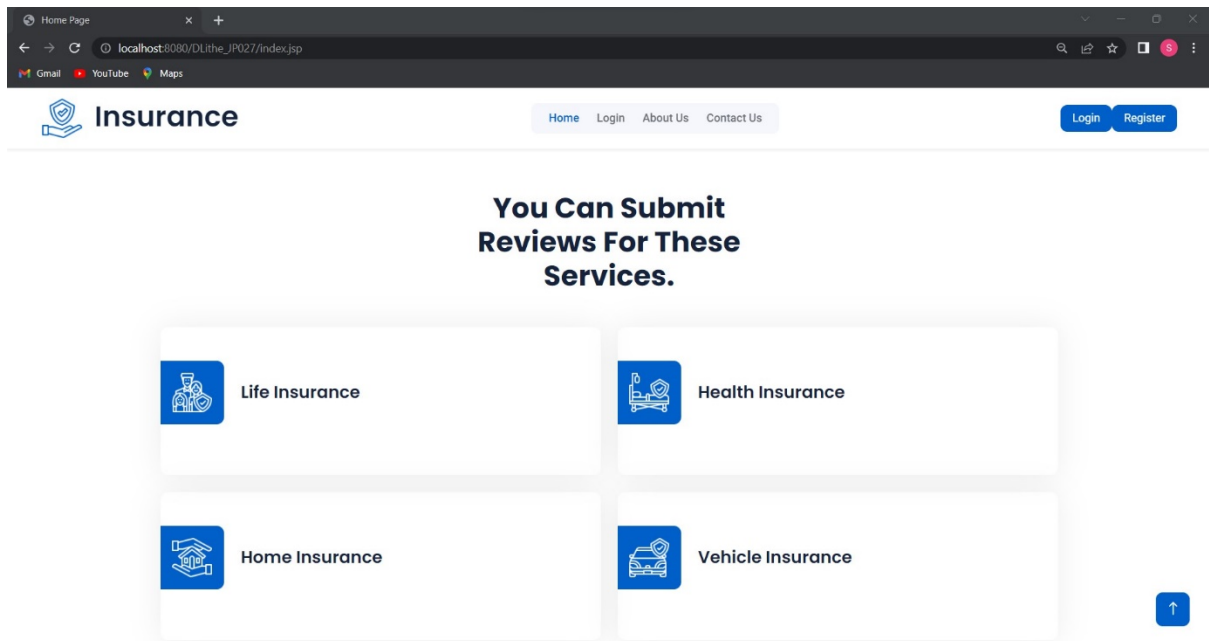


Figure 5.1 Home Page

5.2 Admin Dashboard

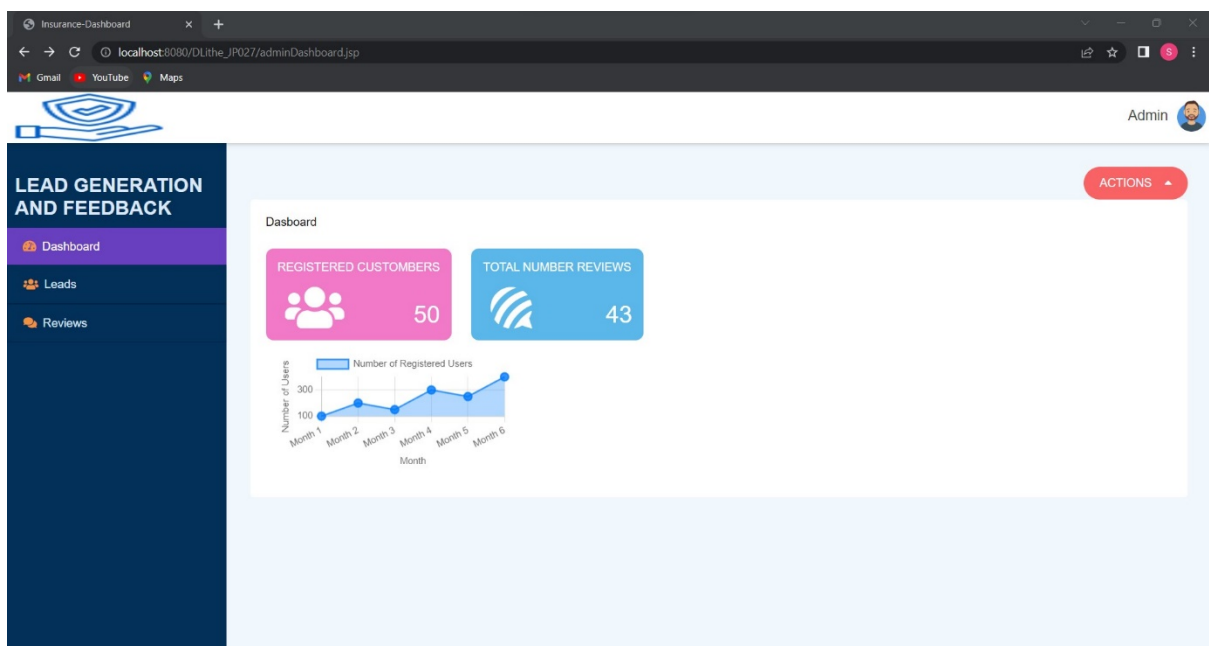
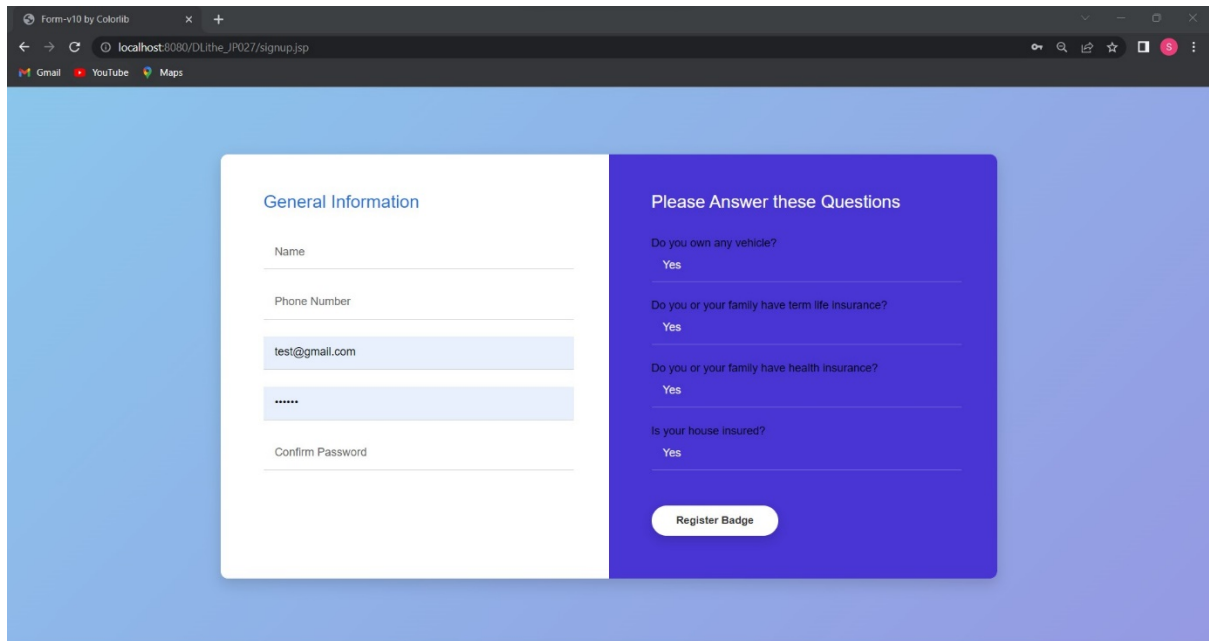


Figure 5.2 Admin Dashboard

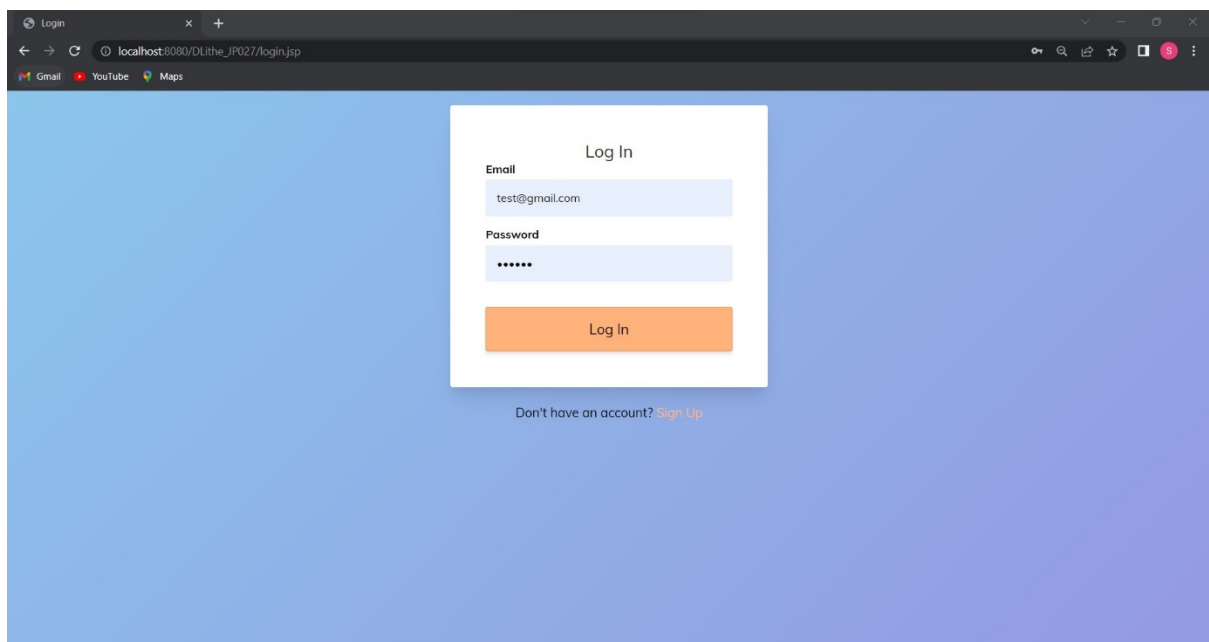
5.3 Lead Collection Form/Sign Up Page



The screenshot shows a web browser window with the address bar displaying 'localhost:8080/DLthe_JP027/signup.jsp'. The page features a light blue gradient background. On the left, a white card titled 'General Information' contains input fields for 'Name', 'Phone Number', 'Email' (pre-filled with 'test@gmail.com'), 'Password' (masked with '*****'), and 'Confirm Password'. On the right, a dark blue card titled 'Please Answer these Questions' contains three questions, each with a 'Yes' input field: 'Do you own any vehicle?', 'Do you or your family have term life insurance?', and 'Do you or your family have health insurance?'. Below these questions is a 'Register Badge' button.

Figure 5.3 Lead Collection Form/Sign Up Page

5.4 Login Page



The screenshot shows a web browser window with the address bar displaying 'localhost:8080/DLthe_JP027/login.jsp'. The page features a light blue gradient background. In the center, a white card titled 'Log In' contains input fields for 'Email' (pre-filled with 'test@gmail.com') and 'Password' (masked with '*****'). Below these fields is an orange 'Log In' button. At the bottom of the card, there is a link that says 'Don't have an account? Sign Up'.

Figure 5.4 Login Page

CHAPTER 6

CONCLUSION AND FUTURE ENHANCEMENTS

CONCLUSION

The implementation of a dashboard-based customer lead capture system in the insurance domain offers numerous benefits for insurance companies. By centralizing lead management and tracking within a comprehensive dashboard, insurance agents can effectively capture, monitor, and nurture leads based on the chosen insurance products. Incorporating a customer review and feedback feature into the insurance domain enhances the overall customer experience and facilitates informed decision-making. By allowing customers to provide reviews and view feedback from others, insurance companies can gain valuable insights and foster transparency and trust within their customer base.

Overall, the implementation of a dashboard-based customer lead capture system optimizes lead management processes, enhances sales efficiency, and delivers a personalized customer experience. By effectively capturing and nurturing leads based on the chosen insurance products, insurance companies can drive business growth, increase customer acquisition, and ultimately achieve success in the competitive insurance market.

FUTURE ENHANCEMENT

Social Media Integration:

Expand the customer review and feedback system to include integration with social media platforms. This would allow customers to share their experiences directly on social media channels, expanding the reach and visibility of the reviews. It would also enable insurance companies to monitor and respond to customer feedback across multiple platforms.

Real-time Customer Engagement:

Enable real-time customer engagement through chatbots or live chat features embedded in the lead generation system. This allows potential customers to get immediate assistance and clarifications regarding their chosen products, enhancing customer experience and increasing the likelihood of lead conversion.

Predictive Lead Scoring:

Implement predictive lead scoring algorithms that assign a lead score based on the chosen products and other relevant factors. This allows insurance companies to prioritize leads and allocate resources effectively, focusing on leads with a higher likelihood of conversion and maximizing sales opportunities.

Integration with CRM and Marketing Automation Systems:

Integrate the lead generation system with customer relationship management (CRM) and marketing automation platforms for seamless lead nurturing and follow-up. This ensures that leads are effectively managed, and personalized communication is maintained throughout the sales cycle, leading to higher conversion rates.

By incorporating these future enhancements into the customer lead generation system based on product choice, insurance companies can optimize their lead generation efforts, improve customer targeting, and enhance the overall conversion rate. These advancements would enable insurance companies to provide personalized recommendations, streamline the lead nurturing process, and increase customer satisfaction, ultimately driving business growth and success.

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