**Designing a Web App to Manage Travel Expenses with SQL Backend**

*Submitted to Jawaharlal Nehru Technological University, Hyderabad*

*in partial fulfillment of requirement for the degree of*

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in

**COMPUTER SCIENCE AND BUSINESS SYSTEMS**

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (BS)**

**SREE DATTHA INSTITUTE OF ENGINEERING & SCIENCE**

**(Autonomous)**

(Approved by A.I.C.T.E & Affiliated to Jawaharlal Nehru Technological University Hyderabad)

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**Designing a Web App to Manage Travel Expenses with SQL Backend**

**Abstract**

**This project focuses on the design and development of a web application aimed at efficiently managing travel expenses for individuals and businesses. The application provides users with a centralized platform to record, track, and analyze their travel expenditures, including transportation, accommodation, meals, and other miscellaneous costs. The web app leverages a robust SQL backend to store, retrieve, and process expense data, ensuring data integrity and efficient querying for reports and analytics.**

**The core features of the web app include user authentication, expense entry and categorization, currency conversion, expense reporting, and visualization of spending patterns. The SQL database schema is designed to handle various types of expenses, user roles, and multi-currency support, while ensuring scalability and ease of access. The backend is optimized for efficient data management through the use of normalized relational tables and SQL queries to support complex reporting functionalities.**

**Keywords:**

**Web Application, Travel Expenses, SQL Backend, Data Management, Expense Reporting, Multi-currency Support, User Authentication, Data Integrity, Financial Analytics.**

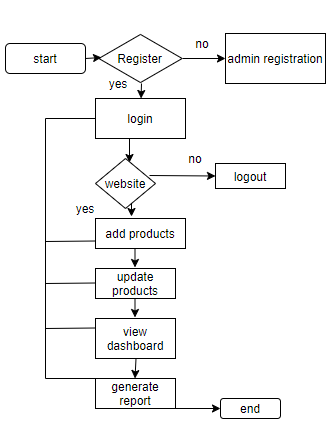
**EXISTING SYSTEM:**

**In today's digital age, numerous travel expense management systems exist to help individuals and businesses track and manage their travel-related expenditures. These systems are designed to streamline the process of recording, categorizing, and analyzing travel expenses, often integrating with accounting software, company policies, and business travel platforms.**

**PROPOSED SYSTEM:**

**The proposed system is a web-based application designed to help individuals and businesses effectively manage travel expenses. This system will allow users to track, categorize, and report their travel-related costs, offering an intuitive interface with secure data storage in a SQL database. The application will also include essential features like multi-currency support, receipt upload and management, and reporting tools, allowing users to efficiently manage their expenses and maintain financial transparency.**

**BLOCK DIAGRAM**



**HARDWARE:**

* SERVERS
* NETWORK DEVICES
* STORAGE DEVICES
* DRIVES(SSD/HD)

**SOFTWARE:**

* WEB SERVER
* APPLICATION SERVER
* DATABASE SERVER
* PROGRAMMING LANGUAGES AND FRAMEWORKS
* OPERATING SYSTEMS
* CLOUD PLATFORMS

**ADVANTAGES:**

* + Organization: Centralized platform to track expenses.
  + Easy Access: Accessible from any device with internet connectivity.
  + Time-Saving: Automated calculations and report generation.
  + Better Financial Oversight: Clear visualization of spending habits.
  + Tax Preparation: Simplified tax filing with organized expense records.

**APPLICATIONS:**

* Corporate Travel: Companies can manage employee travel expenses, track budgets, and generate reports.
* Individual Travelers: Individuals can track personal travel expenses, plan budgets, and optimize spending.
* Freelancers and Consultants: Self-employed individuals can manage project-specific expenses and generate invoices.
* Students: Students can track study abroad expenses and reimbursements.
* Remote Workers: Remote workers can manage work-related travel expenses.

**Signature of Guide Signature of HOD**

**Dr P Rama Koteswara Rao, Dr P Rama Koteshwara Rao**

**M Tech, Ph D M Tech, Ph D**

**Designation Prof & Head**

**PPT Guidelines :**

**Slide 1 : Title and Names**

**Slide 2 : Abstract**

**Slide 3 :Existing System**

**Slide 4 :Proposed System**

**Slide 5 :Block Diagram**

**Slide 6 :Hardware Requirements**

**Slide 7 : Software Requirements**

**Slide 8 :Advantages**

**Slide 9 :**

**Slide 10 : End & Queries**