

PROJECT SYNOPSIS
of
Expense Tracker



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INTRODUCTION

Daily Expense Tracker System is designed to keep a track of Income-Expense of an organisation on a day-to-day basis. This System divides the Income based on daily expenses. If exceed day's expense, system will calculate income and will provide new daily expense allowed amount. Daily expense tracking System will generate report at the end of month to show Income-Expense graph. And employees send reports to the manager for verification. Manager send final reports to administrator .Based on the final reports system predict the next month expense . It will helps to manage over all expense and income . Businesses utilize expense management software to process, pay, and audit employee-initiated expenses. The software includes capabilities for employees to input expenses for approval through a forms. Expense management software simplifies and automates a business' expense entry, eliminates paper trail, and reduces administrative effort. Expense management software allows administrators to have full visibility of and track employee use of business financial resources. Expense management software analyzes overall expenses, identifies cost-saving opportunities, and controls excessive spending. "Expense Tracker" is developed to manage the daily expenses in a more efficient and manageable way. By using this application. we can reduce the manual calculations of the daily expenses and keep track of the expenditure.

In this application, user can provide his income to calculate his total expenses per day and these results will be stored for each user. The application has the provision to predict the income and expense for the manager using data mining .Budgeting systematically and Expense Tracking takes a crucial role in managing the expenses of business organizations. Expense tracking (for managing the employee developed expenses) will bring in several advantages for an organization. That are helpful for the stake-holders in processes of expense. The expense tracker will help any organization to deal with all their expenses more efficiently. By using software for managing expense tracking will help to control unnecessary expenses. There are several benefits and advantages of using online expense trackers, expense tracking makes any organization run faster and smoother..

Features

1. User Authentication and Registration:

- Users can register and log in securely to access their personalized expense tracking dashboard

2. Expense Tracking:

- Users can input and categorize daily expenses.

The system provides a user-friendly interface for expense management.

3. Budget Management:

- Users can set financial goals and budgets for different expense categories.
- Notifications/alerts are sent when users exceed set budgets.

4. Reporting:

- The system generates detailed financial reports, including spending trends and category-wise expenses.
- Reports offer insights into financial habits and help users make informed decisions.

TECHNOLOGIES AND TOOLS

1. HTML (HyperText Markup Language): HTML forms the structure of the web pages in Expense tracker , defining the layout and content of various elements such as headers, navigation menus, product listings, etc.

2. CSS (Cascading Style Sheets): CSS is used to style the HTML elements, controlling the visual presentation of the Expense tracker website, including aspects such as colors, fonts, layout, and responsiveness.

3. Servlet and JSP (Java Server Pages): Servlets and JSPs are Java technologies used for server-side programming in web applications. In Expense tracker , servlets can handle requests from clients (e.g., retrieving product information, processing user inputs), while JSPs generate dynamic HTML content to be sent back to the client.

4.JPA (Java Persistence API) and Hibernate : JPA is a Java standard for object-relational mapping (ORM), while Hibernate is a popular ORM framework that implements JPA specifications. Expense tracker can utilize JPA with Hibernate to interact with the database, perform CRUD (Create, Read, Update, Delete) operations on entities (e.g., products, userprofiles), and manage transactions.

5.: MySQL is a relational database management system (RDBMS) that can be used as the backend database for Expense tracker . It stores data related to products, user accounts, orders, and other aspects of the e-commerce platform. SQL queries and statements are used to interact with the MySQL database, facilitated by JPA and Hibernate.

IDE used:

- **Netbeans IDE :** Netbeans IDE is the primary development environment for Expense tracker . It facilitates coding, debugging, testing, and project management. Netbeans seamlessly integrates with version control systems like Git and supports build automation for deployment. Its extensive plugin ecosystem enhances productivity and customization for the development team. In summary, Netbeans IDE serves as a comprehensive toolset for efficient and streamlined development of the Expense tracker e-commerce platform.

3. SYSTEM REQUIREMENTS SPECIFICATIONS



Hardware and Software Requirement :

For a minimal setup to host the Expense tracker platform:

Hardware :

1.Server:

- ❖ **CPU:** Dual-core processor
- ❖ **RAM:** 8GB DDR4
- ❖ **Storage:** 250GB HDD or SSD
- ❖ **Network:** Ethernet connectivity

2.Database Server:

- ❖ **CPU:** Dual-core processor
- ❖ **RAM:** 8GB DDR4
- ❖ **Storage:** 250GB HDD or SSD

3.Networking Equipment:

- ❖ Basic router
- ❖ Ethernet switch

Software:

1.Operating System:

- ❖ Windows

2.Database Management System:

- ❖ MySQL as the relational database management system (RDBMS) for storing product information, user data, and transaction records.

3.Integrated Development Environment (IDE):

- ❖ Netbeans IDE for Java EE development, including coding servlets, JSPs, and managing the project.

This combined hardware and software configuration forms the basic infrastructure required to deploy and operate the Expense tracker platform. Additional resources and optimizations may be necessary based on the scale and requirements of the project.

BENEFITS AND LIMITATIONS :

Benefits of Expense tracker Web :

- 1. Increased Financial Awareness:** An expense tracker provides a clear overview of your spending habits, allowing you to see where your money is going. This heightened awareness empowers you to make informed decisions about your finances.
- 2. Budget Management:** With an expense tracker, you can set budgets for different categories such as groceries, entertainment, and utilities. Tracking your expenses against these budgets helps you stay on track and avoid overspending.
- 3. Identifying Spending Patterns:** By analyzing your spending patterns over time, an expense tracker helps you identify trends and areas where you may be overspending. This insight enables you to make adjustments and prioritize your spending more effectively.
- 4. Financial Goal Setting:** Whether you're saving for a vacation, a new car, or retirement, an expense tracker can help you track your progress towards your financial goals. Seeing your expenses in context with your goals motivates you to stay focused and disciplined.
- 5. Expense Accountability:** Recording your expenses in real-time holds you accountable for your spending choices. It encourages mindful spending and discourages impulse purchases.
- 6. Improved Saving Habits:** By understanding your spending patterns and actively managing your budget, you can free up extra funds to save or invest for the future. An expense tracker helps you identify opportunities to cut unnecessary expenses and redirect those funds towards your savings goals.
- 7. Financial Planning:** An expense tracker provides valuable data for financial planning purposes, such as creating a retirement plan, building an emergency fund, or paying off debt. Having a clear picture of your finances allows you to make more strategic decisions about your financial future.
- 8. Reduced Financial Stress:** With better control over your finances and a clearer understanding of your financial situation, you'll experience reduced stress and anxiety related to money management. Knowing where your money is going and having a plan in place gives you peace of mind.

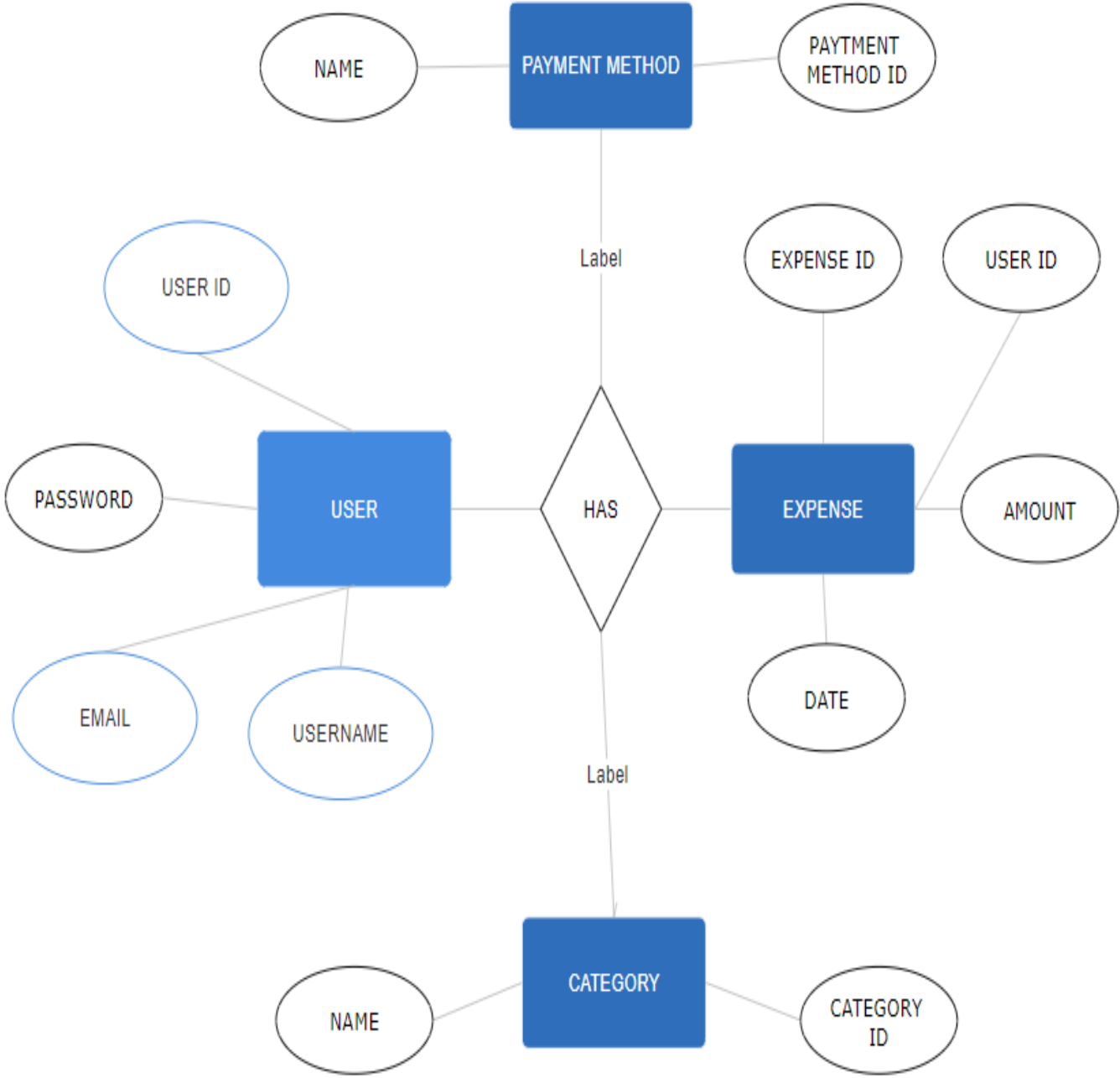
Limitations :

Manual Data Entry: Many expense trackers require users to manually input their expenses, which can be time-consuming and tedious. This process may lead to inaccuracies or omissions, especially if users forget to record certain transactions.

Dependency on User Discipline: The effectiveness of an expense tracker relies heavily on the user's discipline and commitment to consistently track their expenses.

Limited Scope: Expense trackers typically focus on tracking expenditures and may not provide comprehensive financial insights. They may overlook other important aspects of financial management, such as income tracking, investment monitoring, or debt management.

Inability to Capture Cash Transactions: Expense trackers primarily track digital transactions, such as credit card purchases or bank transfers. They may not effectively capture cash transactions, which can.



ER diagram for an Expense Tracker

Users:

UserID (Primary Key)

Username

Password (encrypted)

Email

Other relevant user information (e.g., name, profile picture, etc.)

Expenses:

ExpenseID (Primary Key)

UserID (Foreign Key referencing Users table)

Amount

Date

Description

CategoryID (Foreign Key referencing Categories table)

Payment Method (e.g., cash, credit card, etc.)

Receipt Image (optional)

Categories:

CategoryID (Primary Key)

CategoryName

Payment Methods (if you want to track these separately):

PaymentMethodID (Primary Key)

PaymentMethodName

Budgets (if you want to incorporate budgeting features):

BudgetID (Primary Key)

UserID (Foreign Key referencing Users table)

CategoryID (Foreign Key referencing Categories table)

BudgetAmount

Time Period (e.g., monthly, weekly)

Tags (if you want to tag expenses for better organization/search):

TagID (Primary Key)

TagName

Expense_Tag (a many-to-many relationship table between Expenses and Tags):

ExpenseTagID (Primary Key)

ExpenseID (Foreign Key referencing Expenses table)

TagID (Foreign Key referencing Tags table)

Recurring Expenses (if you want to track recurring expenses):

CategoryID (Foreign Key referencing Categories table)

Frequency (e.g., monthly, weekly)

Start Date

End Date (optional, for recurring expenses with a finite duration)

id	date
1	2014-12-01
2	2014-12-02
3	2014-12-03
4	2014-12-04

****Rent:****

id	date_fk	amount
1	1	1000

2) Create a date table and one general expense table and one expense description table:

****Date:****

id	date
1	2014-12-01
2	2014-12-02
3	2014-12-03
4	2014-12-04

Expense:

id	date_fk	amount	category
1	1	1000	rent
2	1	120	parking
3	2	12	restaurant
4	2	10	entertainment

****Expense_description:****

id	expense_fk	description
1	3	Dinner at Arby's

Expense_Categories:

expense_fk	category_fk
1	1
2	2
3	3
3	4
4	4

conclusion

while expense trackers offer significant benefits for managing personal finances, they also come with certain limitations that users should be aware of. Despite the challenges of manual data entry, dependency on user discipline, and limited scope, expense trackers remain valuable tools for increasing financial awareness, managing budgets, and achieving financial goals.

To overcome these limitations, users can adopt strategies such as setting reminders for expense tracking, leveraging automation features where available, and supplementing expense tracking with other financial management tools. Additionally, users should prioritize privacy and security when selecting an expense tracker app and remain vigilant against potential risks.

Ultimately, while expense trackers may not be perfect solutions, their ability to provide insights into spending habits, facilitate budget management, and support financial planning makes them indispensable for individuals striving for financial wellness. By understanding the limitations and maximizing the benefits of expense trackers, users can take control of their finances and build a more secure financial future.

References

Websites:

Personal finance blogs such as The Simple Dollar, NerdWallet, and MintLife often provide articles and reviews on expense tracker apps.

Official websites of popular expense tracker apps like Mint, YNAB (You Need A Budget), and Personal Capital offer detailed information about their features and functionalities.

Academic Journals:

Journals in finance, economics, or consumer behavior may contain studies or research articles related to expense tracking and its effectiveness in personal financial management. Google Scholar is a useful tool for finding academic papers on this topic.

Online Reviews:

Websites like CNET, PCMag, and TechRadar regularly review software and apps, including expense trackers, providing insights into their features, usability, and user experiences.