



FINDUCATE: FINANCIAL LITERACY PORTAL CASE STUDY

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Abstract: Financial literacy is the most basic and critical skill that everyone should have. But in India, talking about finances at home is not a common practice, many lack the basics of managing money, whether it's savings, investing, buying insurance, or emergency funds. The importance of savings and investment is an important value that must be inculcated from early on. This will help one understand the golden rule of investment- to start early. Being financially literate is one factor that determines the economic growth of a developing nation like India. The financial literacy web application is designed to provide users with a comprehensive set of tools and resources for managing their personal finances. The web app includes modules for expense management, the story of personalities, tax calculation, stock exchange simulation, stock analysis, and finance interactive games. These modules cover a wide range of financial topics and offer both educational content and practical tools to help users improve their financial literacy and make informed financial decisions. The web app is developed using a technology-focused methodology, which emphasizes the importance of designing a solid architecture, using the right tools and frameworks, and conducting thorough testing to ensure the application meets all technical requirements and quality standards. By providing a user-friendly interface and a wealth of financial resources, the financial literacy web app aims to help users achieve financial success and security.

Index Terms - Finance Literacy, Financial topics, Financial education, Game-based learning.

I. INTRODUCTION

Financial literacy is the ability to understand and manage your finances effectively. It involves knowing how to budget, save, invest, and manage debt, among other financial skills. Financial literacy is more important than ever before in today's world, where financial products and services are becoming increasingly complex. India is a rapidly developing country with a growing middle class and a large youth population. However, financial literacy levels in India are low, with many individuals lacking the knowledge and skills to manage their finances effectively. This lack of financial literacy can lead to poor financial decision-making, which can have long-term consequences on individuals' financial health. Therefore, there is a significant need for financial education in India to empower individuals to make informed decisions about their money.

Our financial literacy website aims to bridge the gap in financial education in India by providing comprehensive and accessible information on various financial topics. Our website is designed to cater to individuals with different levels of financial literacy, from beginners to experienced investors. Our website offers a range of features to help individuals improve their financial knowledge and skills. We provide educational resources and practical tips on budgeting, saving, investing, credit, debt management, insurance, and retirement planning. Our website also offers interactive tools, such as calculators and quizzes, to help users test their financial knowledge and track their progress. Additionally, our website features a user-friendly interface, making it easy to navigate and access the necessary resources and we also have a feedback module where user can provide us with their valuable feedback or issues.

II. OVERVIEW

The portal helps users to become aware of different options through which they can meet their financial needs and learn about the benefits of prudent financial behavior and attitude. Users would also learn about various investment options and in what ways they can benefit from these investments. We are providing a portal through which people can learn monetary concepts in a Simulated Environment. We are focused on improving financial literacy metrics.

III. LITERATURE SURVEY

A literature review is a piece of academic writing demonstrating knowledge and understanding of the academic literature on a specific topic placed in context. A literature review also includes a critical evaluation of the material; this is why it is called a literature review rather than a literature report.

This chapter focuses on the in-depth discussion of literature relevant to financial literacy, financial education, experiential learning, game-based learning, and the design of experiential games. The widespread financial literacy programs are being established in response to serious financial illiteracy among youth. The empirical evaluations of these programs validate financial literacy

movement and sums up the best practice for financial education. Experiential learning with the affordance of multimedia is more able to catch students' attention and help them to apply what they learn in class to real life situations.

Related works/Literature review.

3.1 Paper 1

Publication: A Study on Ways to Boost Financial Literacy Among the Individuals in India. Topics in Early Childhood Special Education.

Journal: International Journal of Early Childhood Special Education

Publication Year: 2022

Authors: Neha, Pujari & Gangadhara Rama Rao, Sakha.

Overview: The purpose of this paper is to present a snapshot of the current condition of financial literacy in India using various surveys and the numerous financial education initiatives started in India using multiple degrees of financial literacy.

3.2 Paper 2

Publication: The Design of Online Experiential Financial Literacy Games.

Journal: Research Gate

Publication Year: 2013

Authors: Cheng, Shonn

Overview: The purpose of this qualitative study was to explore how digital games supported experiential learning in the area of financial literacy, how experiential educational games should be designed, and which online games integrated experiential learning to enhance learning outcomes in the area of financial literacy.

3.3 Paper 3

Publication: Instructional Integration of Digital Learning Games in Financial Literacy Education.

Journal: Financial Literacy for Children and Youth

Publication Year: 2017

Authors: Aprea, Carmela & Schultheis, Julia & Stolle, Kathleen.

Overview: The purpose of this study is to understand, how game-based learning can offer one possibility to overcome these obstacles, and thus to make financial literacy programs more effective and appealing. More specifically, it sketches the potential benefits of learning with digital games and then briefly outlines the available empirical research regarding the effects and conditions of game-based learning. It also describes an effort to develop, implement and evaluate a set of game-based learning arrangements.

3. Paper 4

Publication: Financial Video Games: A Financial Literacy Tool for Social Workers.

Journal: International Journal of Social Work.

Publication Year: 2015

Authors: Richards, Kristin & Williams, Jacqueline & Smith, Thomas & Thyer, Bruce.

Overview: The purpose of this study is to describe a new approach to practice for social workers, providing financial education services to their clients through the use of personal-finance video games. It addresses the financial concerns of individuals and families has long been part of social work practice. They conclude that, video games designed for educational purposes (i.e., digital game-based learning) provides a new interactive teaching method which emphasizes experiential learning.

IV. PROPOSED FRAMEWORK

The proposed system for promoting financial literacy in India is a web app that includes various features such as an expense manager, static story of personalities page, tax calculator, stock exchange simulator with mock data, stock analysis with API, budget guessing interactive web app, payday interactive web app, credit score interactive web app, and video lectures from famous personalities and YouTubers.

One of the key advantages of this system over the existing financial literacy initiatives is its comprehensiveness. The web app includes various features and tools that cater to the diverse financial needs and goals of different individuals. For instance, the expense manager can help individuals track their spending and identify areas where they can save, while the stock exchange simulator can help them learn about the stock market and make informed investment decisions. The interactive web apps such as the budget guessing and payday apps can help individuals develop better financial habits and make more informed decisions.

Another advantage of this system is its interactivity and engagement. The web app features a range of interactive tools and features, such as the stock exchange simulator, which provides users with a hands-on experience of the stock market. The credit score interactive web app can help users understand the factors that impact their credit score and how they can improve it. The video lectures from YouTubers can provide users with access to expert advice and insights.

Overall, the proposed system is an improvement over the existing financial literacy initiatives in India because of its comprehensiveness, interactivity, and engagement. By providing users with a range of tools and features that cater to their diverse financial needs and goals, the web app can help individuals develop better financial habits, make more informed decisions, and ultimately improve their financial well-being.

V. IMPLEMENTATION

The proposed financial literacy web app consists of several modules, each offering specific functionality to users. Here are the modules and their corresponding functionalities:

1. Expense Manager: This module allows users to track their expenses, categorize them, and set budget limits for different spending categories. It provides visual representations such as charts and graphs to help users analyze their spending patterns and identify areas where they can save.

2. Static Story of Personalities Page: This module features inspiring stories of successful individuals who have achieved financial stability and success. Users can read about their journeys, learn from their experiences, and gain insights into effective financial management.

3. Tax Calculator: The tax calculator module helps users estimate their income tax liability based on their income, deductions, and applicable tax laws. Users can input their financial details, and the calculator will provide them with an estimate of their tax obligations, helping them plan their finances accordingly.

4. Stock Exchange Simulator with Mock Data: This module offers a simulated stock exchange environment where users can practice buying and selling stocks using mock data. It allows users to learn about stock market dynamics, test investment strategies, and gain hands-on experience without the risk of real financial loss.

5. Stock Analysis with API: This module integrates with financial data APIs to provide real-time stock market data, company profiles, and performance analysis. Users can research and analyze stocks, access key financial ratios and indicators, and make informed investment decisions.

6. Budget Guessing Interactive Web App: This interactive module presents users with financial scenarios and challenges where they have to guess the budget required to meet specific goals or expenses. It enhances users' financial estimation skills and promotes critical thinking in budget planning.

7. Payday Interactive Web App: This module helps users manage their cash flow effectively by allowing them to input their income and expenses, and it provides a visual representation of their monthly budget. Users can plan their expenses around their payday and track their financial progress over time.

8. Credit Score Interactive Web App: This module enables users to check their credit score, understand the factors influencing their score, and receive personalized tips on improving it. Users can monitor their credit health and take proactive steps to enhance their creditworthiness.

9. Video Lectures from YouTubers: This module offers a curated selection of educational videos from renowned YouTubers and financial experts. Users can access informative lectures on various financial topics, such as investing, personal finance, and financial planning, to enhance their financial knowledge.

By combining these modules with their respective functionalities, the financial literacy web app provides users with a comprehensive platform to improve their financial literacy, make informed financial decisions, and achieve their financial goals.

VI. RESULTS

The proposed financial literacy web app offers a range of features and functionalities to improve financial literacy in India. Users can benefit from an expense manager to track and manage their expenses, a tax calculator to estimate their tax liability, and a stock exchange simulator to practice investing without real financial risk. Additionally, the web app provides stock analysis with real-time data, interactive budgeting tools, and payday management features to help users effectively manage their finances. It also includes interactive credit score tracking and educational video lectures from YouTubers. By utilizing these tools, users can enhance their financial knowledge, make informed decisions, and improve their overall financial well-being. The comprehensive nature of the web app, coupled with interactive and educational features, offers an improvement over existing financial literacy initiatives by providing users with a holistic platform to develop financial skills and achieve their financial goals.

VII. CONCLUSION

With an average score of 4.2 in financial knowledge, India is below the average score of 5.2 for the 14 countries in the OECD INFE study.

The importance of financial literacy cannot be overstated. The widespread financial illiteracy among youth has led to disastrous consequences at personal and public level. Financial education programs are being established nationwide, and it is documented that young adults have reaped the benefits from these programs. Digital games do have the capacity to support experiential learning through the creation of virtual environment where concrete experience makes abstract concepts tangible, knowledge are constructed with the help of scaffolding tools, solutions are tried out without incurring real consequences, and the connection between game world and real world facilitates the transfer of learning.

SNAPSHOTS



Figure 1: Landing Page



Figure 2: About Section

Results:
 Company: Meta Platforms Inc.
 Symbol: META

Current Price: \$233.5200
 Previous Price: \$237.0300 on 2023-05-04
 Price Change (\$): -3.5100 (-1.4808% change)

Sector: TECHNOLOGY

Description: Meta Platforms, Inc. develops products that enable people to connect and share with friends and family through mobile devices, PCs, virtual reality headsets, wearables and home devices around the world. The company is headquartered in Menlo Park, California.

Meta Platforms Inc. Stock Information		
Market Cap: \$604,029,846,000	PE Ratio: 29.34	EPS (\$): 7.96
52-week high: \$244.92	Forward PE Ratio: 14.95	50-Day Moving Avg: \$204.55
52-week low: \$88.09	Dividend Yield: 0%	200-Day Moving Avg: \$157.07
Beta: 1.194	Dividend Per Share (\$): 0	Analysts Target Price: \$267.43

Figure 3: Stock Analysis Module

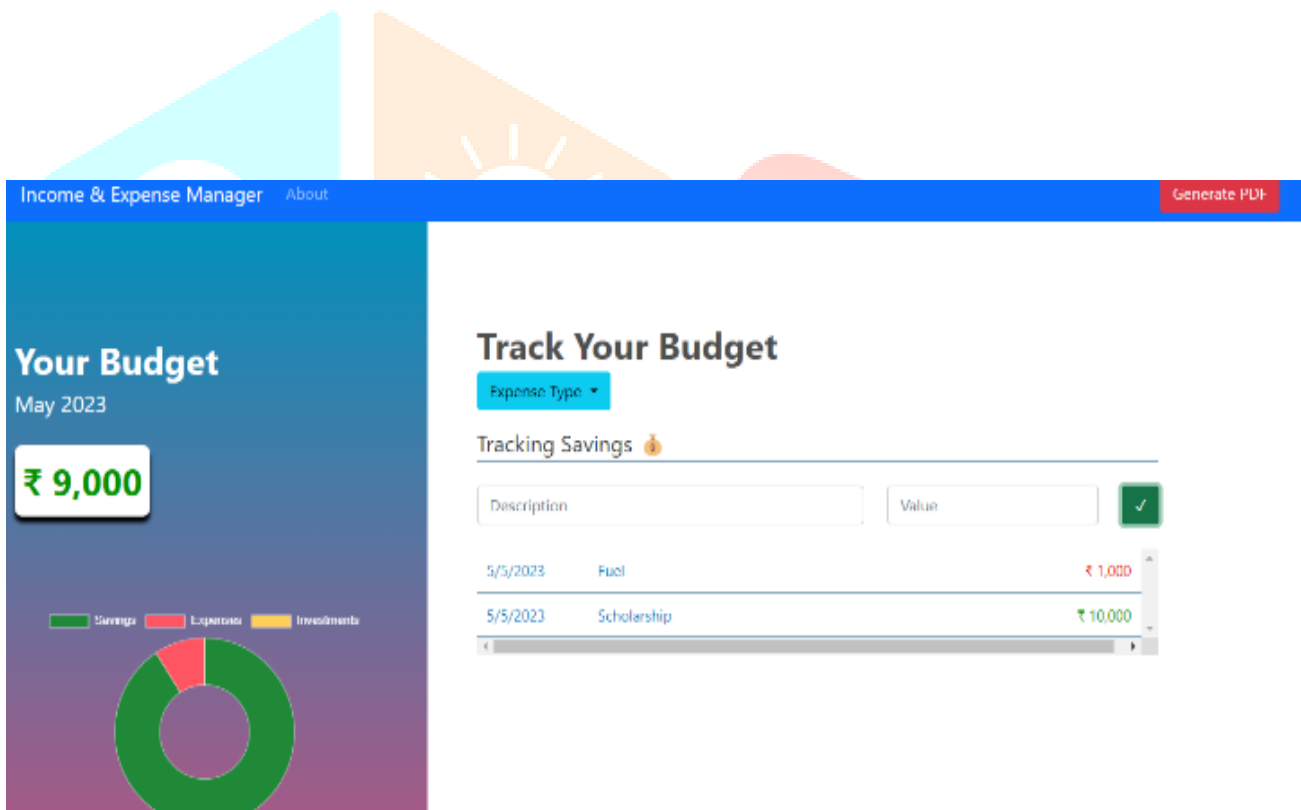


Figure 4: Expense Manager

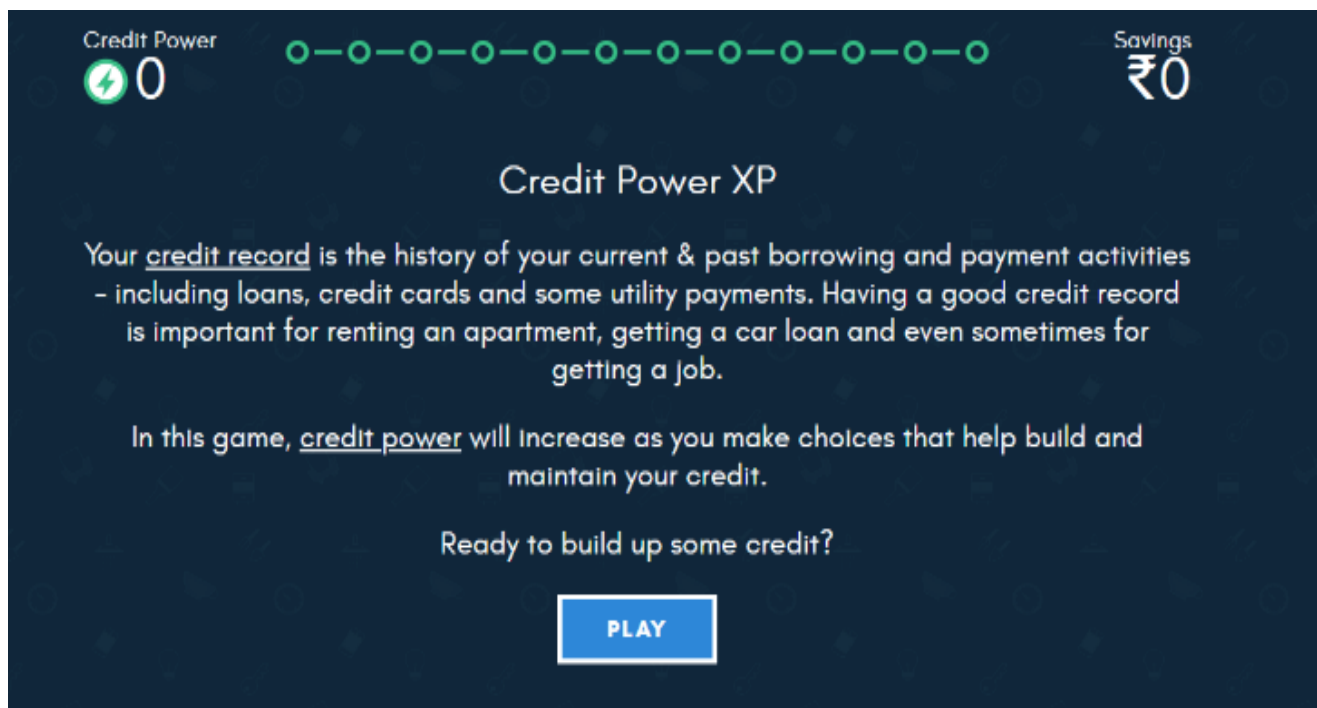


Figure 5: Credit Power Awareness game

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