**INVESTMENT TRACKER APP**

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| **1** | **Name of the Project** | **Investment Tracker App** |
| ***2*** | **Problem Statement** | Design an investment tracking app that offers comprehensive wealth management and stock investment services. The app will provide users with real-time stock data, enabling them to build diverse portfolios that align with their financial goals and values, including ESG (Environmental, Social, and Governance) criteria. Additionally, the app will facilitate personal wealth management and allow users to monitor stock prices and review transaction history.  In addition to these features, the app will integrate an interactive chatbot dedicated to ESG education, ensuring users are well-informed about the environmental and social impact of their investments. This innovative platform aims to be a one-stop solution, offering an inclusive and accessible approach to investment tracking, portfolio management, and financial education |
| **3** | **Objective/ Vision** | * Secure and personalized user registration and authentication system * Intuitive dashboard for a comprehensive overview of investments, wealth, and transaction history * Extensive stock database with real-time updates * Easy stock exploration and selection * Search functionality for streamlined stock selection * Education on ESG (Environmental, Social, and Governance) investing with a glossary for beginners * Watchlist creation and management based on ESG ratings * Multiple portfolio creation for different investment objectives (ethical, green, impact investing) * Portfolio analysis tools with graphs for informed decision-making * Detailed transaction history with filtering and sorting options * Export functionality for transaction data for tax and reporting purposes * Real-time stock data access * Overall wealth tracking across various assets   User-friendly customer support form for inquiries and grievances. |
| **4** | **Users of the System** | General users |
| **5.** | **Assumptions** | User is installed with any of the web browsers |
| ***6*.** | **Functional Requirements** | 1. User should login if not an existing user, then they should register themselves with the platform. While registering, user need to provide the following information, Email, Password, First Name, Last Name, Date of Birth, Address, Gender and Bank Details of the user.  2. User should be able to see the live stock data in dashboard.  3. User should be able to access the ESG Education resources.  4. User should be able create multiple portfolios with different investment objectives.  5. User should be able to view multiple portfolios and also the analysis of stocks in different portfolios.  6. User should be able view the all the live stocks and the stock info of global stocks.  7. User should be able view the transaction history.  8. User should be able to add stocks into the watchlist.  9. User should be able to view chatbot and raise concerns about the using app. |
| **7.** | **Non-functional requirements** | 1. App should be responsive to display consistently across multiple device screens. 2. The password should not be saved directly into the database (encryption method should be used) 3. UI should be user friendly 4. Notifications and animations for more interactive session |
| **8.** | **Tools and Technologies to be used** | 1. Frontend – ReactJs, Vite, Chakra Ui, Nivo, Lottie. 2. Backend – Monolithic Architecture, Spring Boot, JWT,   Java 8, Maven, Junit 5.   1. Database – MySQL,external API 2. Docker Compose 3. Version Control: GIT 4. IDE: Visual Studio Code, IntelliJ. 5. Others: Postman, Jacoco |

**Components of the Project**

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| Database Models | Description |
| **User** | id  fname  lname  dob  phone  password  address |
| **Stock** | id  name  Symbol |
| **Price** | id  stock\_id  date  open\_price  hight\_price  low\_price close\_price |
| **BankDetails** | id  acc\_no  ifsc  bankname  branchname  user\_id |

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| Services | Description |
| **PortfolioStocks** | id  porfolio\_id  stock\_id  stock\_name  price  quantity |
| **Transaction** | id  porfolio\_id  stock\_id  action  quantity  date  stock\_name |
| **WatchlistStocks** | id  watchlist\_id  stock\_id  stock\_name  price |

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| UI Components | Description |
| **Login** | User perform login using this component |
| **Signup** | User can sign up using this component |
| **Dashboard** | User can view the Indexes ,Real-time chart and Top stocks. |
| **ESG Articles** | User can view information about ESG investment ,Tutorials and some books for reference. |
| **Portfolios** | User can view the different portfolios with different investment objectives and analyze their investments. |
| **Watchlists** | User can search for the stock and add the stock to the watchlist. |
| **Past Transaction** | User can view all the transaction history and export the transaction history. |
| **Stocks** | User can view the all the live stocks and the stock info of global stocks |
| **ChatBot** | User can chat with bot and raise concerns in using the app. |

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| 3rd party API’s used: | * <https://in.tradingview.com/widget> * <https://latest-stock-price.p.rapidapi.com> |
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