

IT314 - Software Engineering Lab 3 - Task 3

Group 25 - Portfolio Management INVESTALYZE

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**Product Backlog:**

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| **Front card** | **Back card** |
| **User Stories** | **Confirmation** |
| As a user,  I want to log into the portfolio management system using my email/phone number and password, so that I can securely access my account. | **Acceptance Criteria:**   * User can log in using their registered email/phone number and password. * System verifies the credentials and redirects the user to their portfolio dashboard.   **Failure Criteria:**   * User receives an appropriate error message if the email or password is incorrect. * The system crashes or does not load after login attempts. * Credentials are valid, but the user is not directed to the dashboard. |
| As a user,  I want to log into the system using my social media accounts (Google, LinkedIn, Facebook etc.),  so that I can quickly and easily access my portfolio without remembering another password. | **Acceptance Criteria:**   * User can log in using supported social media accounts and is redirected to the portfolio dashboard upon successful login. * System securely integrates with social media authentication providers.   **Failure Criteria:**   * Login through social media fails due to integration issues. * User is unable to select his/her   preferred social login option. |

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|  | * After successful authentication, the user is not directed to the dashboard. |
| As a user,  I want to reset my password if I forget it, so that I can regain access to my portfolio, and also I want the option to enable two-factor authentication for my account ,  so that I can ensure an additional layer of security when logging in. | **Acceptance Criteria:**   * User receives a password reset link via his/her registered email and is able to reset his/her password using the link and log in with the new password. * User can enable/disable multi- factor authentication from his/her profile. * If enabled multi-factor authentication , after login, the user receives a one-time code (via SMS, email).   **Failure Criteria:**   * Password reset email is not sent to the user after request or the reset link is invalid, expired, or does not work. * User resets his/her password but still cannot log in with the new password. * User does not receive the MFA code after login or MFA setup fails due to system errors or misconfigurations. |

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| As a user,  I want to view a summary of my portfolio (assets, performance, diversification, etc.) from my profile page,  so that I can quickly assess the status of my investments. | **Acceptance Criteria:**   * User can view a summary of his/her portfolio, including assets, performance, and diversification. * The portfolio overview data is accurate, up-to-date, and presented clearly. * User can navigate from the overview to other detailed sections of the portfolio.   **Failure Criteria:**   * The system displays outdated or incorrect portfolio information. * The portfolio overview fails to load, showing errors or incomplete data. * User experiences slow loading times or crashes when viewing the portfolio overview. |
| As a user,  I want to see a simplified view of my stock portfolio, | **Acceptance Criteria:**   * The dashboard visually represents my portfolio using   pie charts or bar graphs. |

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| so I can easily understand my investments without being overwhelmed by complex data. | * Users can view basic information such as stock name, number of shares, and current value. * The interface is simple with limited metrics, avoiding advanced technical indicators.   **Failure Criteria:**   * The dashboard fails to represent the portfolio visually, or the visual representation is unclear. * Basic information such as stock name or number of shares is missing or incorrect. |
| As a user,  I want to have access to detailed performance metrics, technical indicators, and trading history on my dashboard,  so that I can make informed trading decisions. | **Acceptance Criteria:**   * The dashboard shows advanced metrics like moving averages, RSI, MACD, and volume. * Users can view historical price charts for daily, weekly, and monthly time ranges. * Filters are available to customize the data by stock, date range, and performance. * Users can set alerts for price changes or other technical indicators. * Detailed trade history and performance analysis are accessible.   **Failure Criteria:**   * Advanced metrics are missing or not functioning correctly. * Historical price charts are unavailable or incorrect. * Filters are not present or do   not function as expected. |

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|  | * Alerts cannot be set or do not trigger as intended. * Trade history and performance analysis are missing or incomplete. |
| As a user,  I want to set and track investment goals,  so that I can monitor my progress towards achieving my financial objectives. | **Acceptance Criteria:**   * The dashboard allows setting specific investment goals (e.g., saving for retirement, buying a house). * Users can see their progress toward each goal as a   percentage.   * Visual representations like progress bars show how close users are to reaching their goals.   **Failure Criteria:**   * The ability to set specific investment goals is missing or not functioning. * Progress tracking towards goals is incorrect or not displayed. * Visual representations like progress bars are absent or unclear. |
| As a user,  I want to have a streamlined trading interface on my dashboard,  so that I can quickly execute trades for stocks I'm interested in. | **Acceptance Criteria:**   * The dashboard provides a quick-access trading panel where users can buy or sell stocks directly. * Users can view real-time price updates and market depth for selected stocks. * Options to set up and manage   limit orders, stop-loss orders, |

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|  | and other order types are available.  **Failure Criteria:**   * The trading panel is not accessible or is slow to load. * Real-time price updates and market depth are inaccurate or not displayed. * The functionality to set up and manage different order types is missing or faulty. |
| As a user,  I want to categorize my stocks into high-risk and low-risk segments, so that I can easily manage and balance my portfolio based on my risk tolerance. | **Acceptance Criteria:**   * The dashboard allows users to label and categorize stocks as high-risk or low-risk. * Users can view a breakdown of their portfolio by risk category with visual aids like pie charts or bar graphs. * The dashboard provides insights and recommendations for balancing risk within the portfolio. * Users receive alerts if the proportion of high-risk stocks exceeds a certain percentage of the portfolio.   **Failure Criteria:**   * The ability to label and   categorize stocks by risk is not available or is inaccurate.   * The portfolio breakdown by risk category is missing or unclear. * Insights and recommendations for risk balancing are absent or   incorrect. |

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|  | * Alerts for high-risk stock proportions are not triggered or are incorrect. |
| As an admin,  I want to disable a user’s account temporarily,  so that it allows me to restrict access without permanently deleting the user’s data. | **Acceptance Criteria:**   * A disabled user is notified via email about the account status. * The admin can re-enable the account at any time, restoring full access for the user. |

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|  | **Failure Criteria:**   * If the account remains active after attempting to disable it, the system informs the admin with a specific error message, and the disable action is logged as failed |
| As an admin,  I want to add a new user manually, so that it allows me to onboard users who may not have registered themselves, ensuring everyone who needs access can have it. | **Acceptance Criteria:**   * The admin can manually create a new user account by entering essential details. * The new user receives a welcome email with login instructions and a link to set up their profile. * The new user account is immediately active, and the user can log in with their credentials.   **Failure Criteria:**   * If the email address is already associated with an existing account, the system prevents the creation of a duplicate account and informs the admin with a specific error message. * If the new user account fails to activate due to a system issue, the admin is informed, and the account remains inactive. |
| As an admin,  I want to delete a user’s account because it allows me to remove inactive or non-compliant users, keeping the platform secure and user data up to date. | **Acceptance Criteria:**   * The admin can select a user and choose to delete their account by confirming the username and email. * A confirmation prompt appears before the account is   deleted, detailing the |

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|  | username and associated data that will be removed.  **Failure Criteria:**   * If the deletion fails due to a system error, the admin   receives an error message, and the account remains active. |
| As an admin,  I want to log in with admin privileges, so that it allows me to manage and access the administrative features and tasks that are crucial for platform maintenance. | **Acceptance Criteria:**   * The admin can log in using a special admin account with enhanced privileges, entering username, password * The admin is redirected to the admin dashboard upon successful login.   **Failure Criteria:**   * If the login attempt fails due to incorrect credentials, the   system displays a clear error message and prompts the admin to retry. |
| As an admin,  I want to view all registered users, so that it allows me to monitor and manage the platform’s user base effectively | **Acceptance Criteria:**   * The admin can access a list of all registered users, displaying essential details such as username, email, registration date and account status (active, disabled).   **Failure Criteria:**   * The trending posts section does not reflect actual popular content. * Posts with little or no engagement are incorrectly   displayed as trending. |

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|  | * Students are unable to interact with the trending posts (e.g., like, comment). |
| As an admin,  I want to add a new stock to the database because it allows users to track and invest in the most up-to- date stocks,  so that the platform remains current and valuable to its users. | **Acceptance Criteria:**   * Club members can search for posts tagged with their club’s events. * Search results accurately   reflect the events organized by the club.   * Members can review feedback and coverage easily.   **Failure Criteria:**   * Search results do not include relevant event posts. * The search function does not recognize the club's events or tags. * Members are unable to access past event coverage or   feedback. |

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| As a user,  I want the application to suggest optimal asset allocation using an ML model,  So that I can maximize returns based on my risk tolerance. | **Acceptance Criteria:**   * The model suggests allocation that improves portfolio performance.   **Failure Criteria:**   * Suggested allocations lead to poor portfolio performance. |
| As an admin,  I want to schedule or trigger retraining of ML models,  So that the models remain up-to- date with recent market data. | **Acceptance Criteria:**   * The admin can easily initiate model retraining based on new data.   **Failure Criteria:**   * Models cannot be retrained as needed, leading to outdated   predictions. |
| As a user,  I want to search latest stock prices and their basic upward-downward trend on the current day  so that I can make the most profit from my trade. | **Acceptance Criteria:**   * Traders can successfully search for stocks using its ticker symbol or company name. * Stock details should be accurate and latest (real time). |

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|  | * Upward- Downward symbol is displayed alongside percentage to show current trend. * Each stock result should display detailed information like trend analysis, financial metrics, price history etc.   **Failure Criteria:**   * The system fails to return stocks using company name or ticker symbol. * Stock details are not accurate or updated in real time. * Current trend symbol is incorrect or not displayed. * Stock information is incomplete or inaccurate. |
| As an user,  I want to learn about historical patterns (2-5 years) and current trends of a specific stock and the overall market  so that I can make informed decisions about purchasing or selling stock at the right time. | **Acceptance criteria:**   * Historical data is displayed for the specified time range by the user accurately. * System displays up-to-date current trends and indicators. * The system provides an overall summary on market conditions and changes in a sector that affect the specific stock. * The data should be displayed in user-friendly format such as charts, graphs, tables, different filters and comparisons. * Navigation and understanding data should be easy.   **Failure Criteria:** |

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|  | * The system is unable to return historical data or current trends and indicators (outdated info.) * Data is not displayed in user friendly format like charts, tables, graphs etc. * Navigation through the search section and understanding data is cumbersome. |
| As a user,  I want to search for trending and stable (low risk) stocks  so that I can confidently start learning and investing to build my portfolio. | **Acceptance Criteria:**   * The system categorizes stocks based on risk level and current trend and explains the criteria for risk level and trends   correctly to the user.   * The search results correctly display currently trending and stable stocks. * User friendly interface and explanations for technical and financial terms to make   beginners equipped with information.   * A help tool for beginners for guided tutorials or FAQs.   **Failure Criteria:**   * The search results are not of relevant, trending or stable stocks. * Explanations or definitions of financial and technical terms are incorrect or complex to understand, or poorly displayed. |

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| As an user,  I want to filter stocks based on categories(e.g.,market-sectors, net growth range, price, risk level)  so that I can efficiently browse and diversify my portfolio according to my requirements. | **Acceptance criteria:**   * There should be a range of filtering options like market sectors, net growth   range,price,risk level etc. and each criteria should be clearly explained to users.   * Users can select one or multiple filters according to the needs of the user. * The filter interface is user friendly for users to easily add/adjust filtering criterias. * Sorting and grouping functions should be available to sort or group results based on filters. * Results of the filtered search should display an accurate list of stocks and its related data.   **Failure Criteria:**   * Sorting and grouping functions do not work correctly, leading to disorganized or incorrect displays of search results. * The system does not provide clear or accessible explanations for each filtering criterion. * The system fails to provide a range of filtering options. |