Feature Document: Return Calculator

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For - Grip invest

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1. Feature Overview

The **Return Calculator** is an intuitive tool designed to help users visualize how their wealth can grow over 1, 2, or 3 years through monthly investments. By inputting a desired monthly investment amount and selecting from various investment products offered by Grip, users can see potential returns under different market scenarios. Additionally, the calculator compares the chosen investment products with others available on Grip, including risk-free return factors and CAPM-adjusted returns.

Key Features:

- **Comparison of Investment Products**: Users can compare returns from different investment options side-by-side
- **Risk-Free Returns**: The feature will display comparative returns on risk-free investment options (such as government bonds), giving users the ability to evaluate Grip's investment products against safer alternatives.
- **CAPM-Adjusted Returns**: Incorporates the Capital Asset Pricing Model (CAPM) to provide risk-adjusted returns, helping users understand whether their potential returns justify the risks they are taking.
- **Scenario Simulation**: Users can simulate best-case, moderate-case, and worst-case investment outcomes based on market conditions.
- **Tax Implication Estimator**: The calculator includes tax estimates to provide a clear view of post-tax earnings.

This feature serves as a powerful hook, aimed at increasing new investments by demonstrating why Grip's offerings are more beneficial compared to other options in the market.

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2. Benefits for Users

1. **Customizable and Personalized Investment Experience**:
   Users can customize their investment by inputting the amount, selecting a timeframe, and choosing products that suit their preferences. This personalization allows them to make better-informed decisions that align with their financial goals.
2. **Transparency in Risk and Returns**:
   The **Scenario Simulation** allows users to visualize how their investments could perform under various market conditions (best-case, moderate-case, and worst-case). The **Tax Implication Estimator** provides realistic projections of post-tax earnings, while **CAPM-based returns** help users understand the risk-adjusted performance of each investment. Additionally, **risk-free returns** give users a clear benchmark to assess the safety and profitability of their investments. Together, these features enhance transparency and build user trust.
3. **Empowered Decision-Making with Visual Insights**:
   Interactive graphs and visuals make it easier for users to track projected growth over time. By offering

side-by-side comparisons of various investment products, the feature simplifies complex data and helps users make more confident decisions.

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3. Three Reasons Why This Feature Enhances User Experience

User-Driven Flexibility:

Unlike other platforms that offer preset investment options, this feature allows users to customize their investment choices by selecting their preferred products, timeframes, and investment amounts. The flexibility to compare different investment products, including risk-adjusted and risk-free returns, provides a personalized, user-centric experience that empowers users to take control of their financial future.

Increased Transparency with Risk and Taxes:

The **Scenario Simulation** ensures users have a clear understanding of how market volatility could impact their investments by presenting best-case, moderate-case, and worst-case scenarios. The **Tax Implication Estimator** shows realistic, after-tax earnings, while **CAPM-based returns** provide users with a better grasp of the risk-return tradeoff for each product. Additionally, **risk-free returns** offer a benchmark for users to evaluate safer options, leading to a more transparent and accurate financial outlook.

Visual Insights for Simplifying Complex Data:

The use of interactive graphs enables users to visualize projected growth over time, including **risk scenarios**, **CAPM-adjusted returns**, and **post-tax earnings**. By breaking down complex financial data into easy-to-understand visuals, the feature makes investment decisions more accessible, helping users navigate through the data with ease and confidence.

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4. Technical Considerations

1. **Scenario Simulation**:
   Market-based simulations for best-case, moderate-case, and worst-case scenarios will need to be developed. Each product's performance will be modeled based on historical data and market trends.
2. **Tax Implication Estimator**:
   This will require integration of tax rules based on product type (e.g., bonds, stocks) and user tax brackets. The system will automatically calculate and display post-tax return projections.
3. **CAPM-Adjusted Returns**:
   CAPM (Capital Asset Pricing Model) will be used to calculate risk-adjusted returns. This gives users insight into the risk-return tradeoff of their selected products.
4. **Comparison of Investment Products**:
   The backend will support real-time comparisons between different investment products, displaying risk-free returns, CAPM-adjusted returns, and post-tax earnings side by side.

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5. Highest Impact with Lowest Effort

The **Scenario Simulation**, **Tax Implication Estimator**, **CAPM-based returns**, and **risk-free returns** build on existing product data with minimal additional complexity. By leveraging existing market and product data, along with adding simple calculations, the feature provides enhanced user insights while maintaining low backend development effort. Comparisons using CAPM-adjusted returns and risk-free return factors can further improve user engagement, without a major increase in technical overhead.

Product Requirements Document (PRD): Return Calculator

1. Feature Overview

Purpose:
The Customizable Return Calculator enables users to calculate and compare returns on monthly investments, offering visualizations of potential growth over 1, 2, or 3 years. This feature supports a variety of investment products offered on the Grip platform and includes detailed insights such as **CAPM-adjusted returns**, **risk-free returns**, and tax-adjusted returns.

Scope:
The feature is limited to products available on the Grip platform and will compare them using various financial metrics, including **CAPM**, tax implications, risk-free returns, and different market scenarios.

2. User Stories

- As a user, I want to input a monthly investment amount so that I can see how much my wealth can grow over a set period.
- As a user, I want to compare different investment products side-by-side, allowing me to choose the best one for my goals.
- As a user, I want to see post-tax earnings, **risk-free returns**, and **CAPM-adjusted returns** so that I can assess my real returns.
- As a user, I want to view interactive graphs that show projected growth, helping me understand how my investment performs over time.

3. Functional Requirements

- **Input Fields**:
  - Monthly investment amount
  - Timeframe selection (1, 2, or 3 years)
  - Product selection (multiple investment products)
- **Scenario Simulation**:
  - Display best-case, moderate-case, and worst-case outcomes based on market conditions.
- **Tax Implication Estimator**:
  - Automatically calculate estimated taxes based on the selected product and the user's tax bracket.
- **Comparison Feature**:
  - Show side-by-side comparisons of various investment products using **CAPM-adjusted returns**, **risk-free returns**, and post-tax earnings.
- **Graphical Output**:
  - Provide interactive graphs that visualize the growth of investments over time, factoring in risk scenarios and tax impacts.

4. Non-Functional Requirements

- **Performance**: The system should generate real-time results for user input without noticeable delays. Pre-calculated data should be used to minimize response times.
- **Scalability**: Ensure the feature can handle large volumes of users simultaneously without affecting the overall platform performance.
- **Security**: The feature must handle sensitive financial data securely, using encryption to protect user information and transactions.
- **Accuracy :** All calculations, including projected returns, tax implications, and risk-adjusted metrics (e.g., CAPM-based returns), should be precise and reflect real-time market data to ensure users receive reliable and accurate financial insights.

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5. Technical Considerations

- **Backend Development**:
  - Market-based simulations will be required for the Scenario Simulation feature. Historical data and trends will be used to model possible outcomes.
- **Data Sources**:
  - Real-time financial data for each product will be needed for the comparison feature. The tax calculator will rely on product-specific tax rates and user tax brackets.
- **API Integration**:
  - Integrate external APIs for tax data, **CAPM calculations**, and real-time market conditions where necessary, ensuring accurate tax implications and risk-free returns.

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6. Assumptions

- The user's tax bracket will either be manually entered or pulled from existing user data.
- **CAPM** calculations will be based on readily available market data.
- **Risk-free returns** will be calculated using data from safe investment options (such as government bonds).
- Scenario simulations will rely on historical performance data from the platform's investment products.

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7. Success Metrics (KPIs)

User Engagement Metrics:

- **Feature Usage Rate**: Percentage of registered users who utilize the Return Calculator at least once per month.
- **Average Time Spent**: Time users spend interacting with the Return Calculator in a session.
- **Return Calculator Reuse Rate**: Percentage of users returning to use the calculator within a 30-day window.

Conversion Metrics:

- **Investment Initiations**: Number of users who proceed to make an investment after using the calculator.
- **New Investments Growth Rate**: Month-over-month growth in investments initiated through the Return Calculator.
- **Average Investment Value**: Comparison of investment size between users who use the calculator and those who don't.

Feature Adoption Metrics:

- **Adoption Rate**: Percentage of users who try the Return Calculator within 30 days of its release.
- **Comparison Usage**: Percentage of users engaging with the investment comparison feature.
- **Scenario Simulation Usage**: Percentage of users interacting with the **Scenario Simulation** feature.

Customer Satisfaction:

- **Net Promoter Score (NPS)**: User satisfaction with the Return Calculator feature, measured via feedback.
- **User Retention Rate**: Percentage of users who continue to use the feature over time for recurring investments.

Wireframe Design: Return Calculator

1) Input Page

RETURN CALCULATOR ✕

Let's start with the basics

How much do you want to invest each month?

Rupees - 10,000

How long are you planning to invest?

[1 year] [2 years] [3 years]

What are you investing in?

OPTION 1

SELECTED OPTION

OPTION 2

[Calculate]

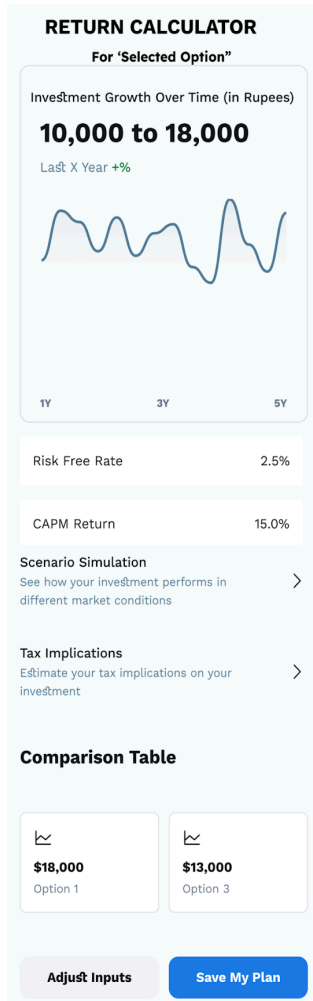By continuing you agree to our Terms of Service.

Monthly Investment Amount Input Field: Users enter the amount they wish to invest monthly in this field, ensuring a clear input process.

Time Period Selection: Users can choose from three options—**1 Year**, **2 Years**, or **3 Years**—to specify their investment duration.

Investment Options Scroll Feature: This scroll feature allows users to browse and select from various investment products available on the Grip platform.

Calculate Button: The **Calculate** button enables users to submit their inputs and initiate the return calculation.

2) Comparison and Result Page:

RETURN CALCULATOR
For 'Selected Option'

Investment Growth Over Time (in Rupees)
10,000 to 18,000
Last X Year +%

1Y   3Y   5Y

Risk Free Rate   2.5%

CAPM Return   15.0%

Scenario Simulation
See how your investment performs in
different market conditions   >

Tax Implications
Estimate your tax implications on your
investment   >

Comparison Table

$18,000 $13,000
Option 1   Option 3

Adjust Inputs   Save My Plan

Calculated Value Display: The calculated return value from the investment input is prominently shown at the top, accompanied by a graph that visually represents growth over the selected time period.

Trend Percentage: Above the graph, a small percentage indicates the historical trend of the investment (positive or negative) over the past X years, providing users with quick insight into performance.

Risk-Free Return and CAPM Return Section: This section displays the respective values for risk-free returns and CAPM-adjusted returns, offering users essential metrics for assessing investment options.

Scenario Simulation and Tax Options: Users can click on these options to calculate potential returns based on different market scenarios and estimate tax implications, enhancing their decision-making capabilities.

Comparison Section: Below the calculations, a comparison feature lists various investment options with their respective calculated values. Users can click on these options to access detailed pages for further insights.

Real-Time Input Adjustment: Users can modify their investment parameters directly on the Results Page, which updates the calculated value in real-time, allowing for dynamic adjustments without navigating away from the page.

Save My Plan: This button enables users to save their investment plan for future reference, streamlining the investment process.

3) Comparison Page

Comparison Option Display: Similar to the previous results page, this section shows the calculated value and graph of the selected investment option, along with risk-free returns, CAPM-adjusted returns, and the trend percentage.
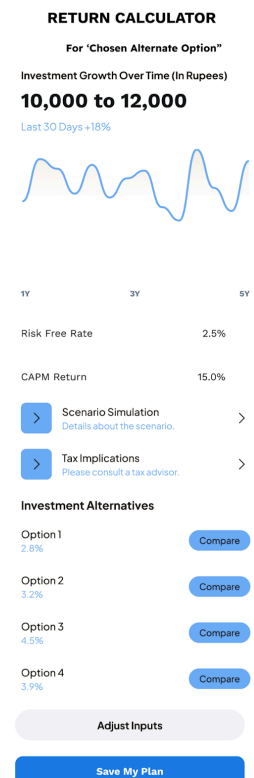
Additional Comparison Options: Below the selected option, users are presented with more investment products to compare. Each option displays its calculated return value for easy evaluation.

Compare Button: Each additional option has a **Compare** button in front of it, allowing users to add that product to a side-by-side comparison. This feature enables users to evaluate multiple options simultaneously for better decision-making.

Real-Time Input Adjustment: Users can modify their input directly on this page as well, with real-time updates to the calculated values and graphs.

Scenario Simulation and Tax Options: These options remain available for users to simulate different market conditions and estimate post-tax earnings.

Save My Plan: Users can save their customized comparison and investment plan for future reference by clicking this button.

RETURN CALCULATOR
For 'Chosen Alternate Option'

Investment Growth Over Time (In Rupees)
10,000 to 12,000
Last 30 Days +18%

1Y   3Y   5Y

Risk Free Rate   2.5%

CAPM Return   15.0%

> Scenario Simulation
   Details about the scenario.   >

> Tax Implications
   Please consult a tax advisor.   >

Investment Alternatives

Option 1
2.8%   Compare

Option 2
3.2%   Compare

Option 3
4.5%   Compare

Option 4
3.9%   Compare

Adjust Inputs

Save My Plan

4) **Final Summary Page**

RETURN CALCULATOR

Your investment Summary

Projected Returns (in Rupees)

12,334.00

5 years
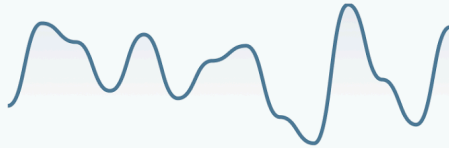
1Y	3Y	5Y

Risk Adjusted Returns (In Rupees)   12,334.00

Tax Implications (In Rupees)   +2,234.00

Proceed to Invest

Recalculate

Investment to Return Summary: The top section displays the final investment-to-return summary, giving users a clear snapshot of their projected total returns based on the inputs they provided.

Graphical Representation: Below the summary, a graph illustrates the growth trajectory of the investment over the selected time period, allowing users to visualize how their wealth will grow.

Risk-Adjusted Return and Tax Implication: This section shows users the calculated values for the risk-adjusted return (CAPM) and tax implications, providing a comprehensive view of their post-risk and post-tax earnings.

Action Buttons:

- **Invest:** A prominent button for users to proceed with their investment, taking the calculated values into account.
- **Recalculate:** This button allows users to revise their inputs and redirects them back to the Comparison Page, where they can further adjust or compare different investment options before finalizing their decision.