Investment Plan Analytics (DST Use Case)

GitHub Repository: https://github.com/wangchen2317199/FS16_Hackathon

YouTube Video: https://www.youtube.com/watch?v=iSUUbLbbApY

Amazon AWS Link: http://investmentplanner.s3-website-us-east-1.amazonaws.com

By *The Brokers*

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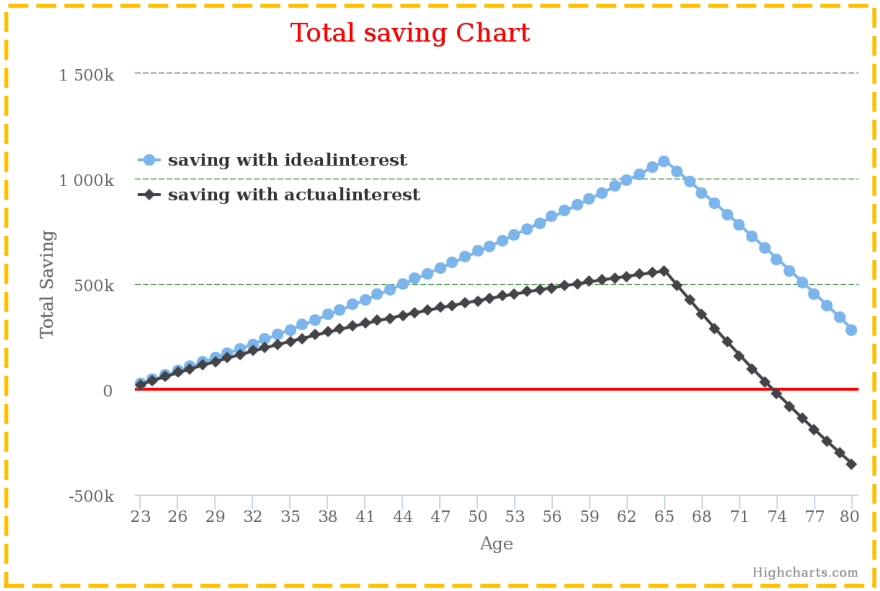
Problem

Investors focus on retirement planning and avoid on planning for death.



Solution

Method 1
- Show effect of investment decisions **after retirement**.

Method 2
- Make **realistic** expense calculations.

Method 3
- Account for **inflation**.

Method 4
- Show amount remaining **at death** (age 80).

Problem

Investors focus on potential profit and avoid thinking about **risk of loss**.

Solution

Show **potential effects** of investment decisions.

- **Risk vs Reward**: Graph the best and worst case scenario for a fund family.
- **Show Truth**: Graph the future gains/losses based on current investment history.
- **Reality Check**: Show their current investment interest in comparison to the ideal interest.

Details of Investments

Stock	Total Buying Price	Current Total Value	Total Profit	Profit (% per Year)	Current Trend in 5 Years	Reversed Trend in 5 Years
TAAAX	$1102.86	$1319.67	$216.81	**4.35%**	**$1632.89**	$1056.47
TMAAX	$2545.21	$2644.71	$99.50	**1.11%**	**$2794.96**	$2500.99

Assuptions

- ageOfDeath := 80
- inflation := 0.04 **(i)**
- lossRate := gainRate.reverse( )

Calculations

- **ideal**Saving := (invest + saving) * Math.pow(1 + **ideal**Interest - i, ageRetire - age)
- **real**Saving := (invest + saving) * Math.pow(1 + **real**Interest - i, ageRetire - age)
- **ideal**Saving := (invest - expense) * Math.pow(1 + **ideal**Interest - i, death - ageRetire)
- **real**Saving := (invest - expense) * Math.pow(1 + **real**Interest - i, death - ageRetire)

Attributions and Source

- Yahoo Finance  https://finance.yahoo.com
- Thrivent Mutual Funds  https://www.thriventfunds.com
- HighChart  http://www.highcharts.com
- mLab  https://mlab.com