

Project Idea

Overview.

The project idea combines a passion for finance and I.T. to develop a program which allows the individual to easily create an investment portfolio which maximises their profitability whilst minimising risk for the individual. The program will use historic data from the Australian Stock Exchange (ASX) and apply statistical analysis to create an individual profile for each investment option, on top of this we will be experimenting with Artificial Intelligence (AI) to maximise efficiency and accuracy of outputs. The user will have complete control of their portfolio and receive live updates through a phone app which will notify them when their investments reach certain benchmarks of their portfolio goes outside of parameters.

Motivation.

Investing is a very confusing and nerve-racking experience for someone who has never done it before, and it can often be very daunting for people, many not knowing where to start and as such spend hours upon hours researching where to best invest their money. Ultimately the decisions these people make are commonly the wrong ones for their circumstances resulting in an individual taking on more risk or having limited access to liquid funds. This program aims to fix these common issues by profiling the individual into risk profiles through means of a questionnaire.

Description.

Upon signing up the user will be asked a series of questions based around their lifestyle, financial positions, goals etc. The answers to these questions will then profile the individual and create a dummy portfolio which outlines an ideal asset allocation for their position based on different asset classes (Stock, Bonds, property, cash). For example, someone who needs fast access to their cash will be recommended to hold a high percentage of their portfolio in cash or term deposits whereas someone who has a lot of disposable income or less of a need for liquidity will be recommended towards a higher percentage of stock or bonds. The individual will be able to alter their ideal portfolio if they disagree with the initial response from the programme, this allows for full control.

Once the user has set up their profile the programme will start recommending investments to build the users portfolio based on the asset allocations determined. Users will be able to access all securities available on the Australian Stock Exchange, however, the programme will have a built-in algorithm to determine their best choices. The user will be able to buy and sell the stock with a built-in, online broker program.

The underlying programme will pull data, in real time, directly from the Australian Stock Exchange, all data and charts commonly available will be displayed, however, an algorithm will assess data from the last 10 years to determine the standard deviation and based off of this a likely range (1, 2, and 3 standard deviations). Other information may be available based off of the AI component of the algorithm.

Once the user has set up their profile, they will be able to set up weekly or monthly payments into their account to help them budget for their investments. Each month

the AI will suggest investment options based on their portfolio preference and the likely outcome of the investment.

With the large fluctuations of economic markets, it is easy for an individual's portfolio to become unbalanced and this is why our project will involve updates and phone notifications to the user. Once an individual's asset allocations move outside a certain range, the individual will be alerted that their profile has become too "Bullish" or too "Bearish" and recommend buying or selling stock based on rebalancing their portfolio.

A final AI component will be available, should the user wish to use it; this will give the program authority to buy and sell stock based off of indicators which would indicate to the computer that a stock is either going to crash or skyrocket, this could allow for instant gratification of small indicators which an individual might miss should they need to approve a trade. The user will also be able to set certain "sell points" for their stock to mitigate potential losses.

This program will allow people to live their daily lives without having to constantly check their booking app to see how their stock is doing or investing countless hours researching investment options.

Technical Requirements

In order to make this project work, we are going to need a number of IT and Finance professionals. A website professional will help us set up an efficiently running website with appropriate sales funnels and linking to the Australian Stock Exchange data, we will also need a highly secured database to store personal and account information. Finance professionals will be required along with an AI professional to

assist in programming the algorithm which will assess stock and assist the user with their investment choices.