# High-level breakdown analysis of the problem

We have to build software for an investment firm that helps users invest money in the stock market. There are two types of users in this system: advisors who work for the investment firm, and individuals who want to invest money in the stock market. Each individual user is assigned one advisor, who first understands the user's requirements and based on that understanding, creates a profile. Individuals then use that profile to invest their money in different stocks to maximize their profit.

A profile determines the percentage of total money allocated to different sectors in which a user can invest. For example, one profile states that financial investments comprise 25%, IT investments comprise 50%, and Agriculture investments comprise 25%. This indicates that 25% of the total money can be invested in the financial sector according to that advisor's recommendation.

*Individuals have the choice to follow the profile recommended by the advisor or not.*

Here, I break down the methods that we need to implement in this project into different parts.

*User*
addUser (addAdvisor, addClient)
investorProfit

*Profile*
defineProfile
profileSectorWeights

*Acocunt*
createAccount
changeAdvisor
tradeShares
accountValue

*Report*
divergentAccounts
advisorGroups
advisorProtfolioValue
stockRecommendation

*Sector*
defineSector

*Stock*
defineStock
setStockPrice
disburseDividend

I intentionally placed the 'investorProfit' into the User section because I suspect that one user may have multiple accounts, and if I were to put this into the Account section, it would be incorrect.

Now, methods such as addClient, addAdvisor, defineProfile, createAccount, changeAdvisor, tradeShares, defineSector, defineStock, and setStockPrice are completed using just one query. Meanwhile, the renaming methods require more than one query and are slightly more complex.