**Problem:**

1. Current approaches to identifying risk tolerances in robo-advisories are qualitative and require time-consuming manual effort (tedious risk tolerance questionnaire)
2. Risk tolerance questionnaire issues:

* Prone to error
* Investors suffer from behavioural biases
* Poor judges of risk perception

**Possible Aims to Explore:**

1. To make a Machine Learning model that is better at predicting investors risk profile than a risk questionnaire
2. Possibility to automate the entire portfolio management process
3. Create an algorithm that would predict how the client investor would deal with different market scenarios

* Define an Intelligent Investor to be someone who does not change their risk tolerance during changes in the market
* We can compute the percentage change in Risk Tolerance before and after major changes in the market (for example, compare between Risk Tolerance change between 2007 and 2009)
* We can use this information to surmise the following:

1. Intelligent Investors = Investors whose risk tolerance change less than 10%
2. True Risk tolerance = Average Risk over the years

**Aim of the Capstone Project:**

To demonstrate the automation of the manual steps in the portfolio management process with the help of machine learning

1. Build a Supervised Regression-Based Model to predict the risk tolerance of the investor
2. Build a dashboard in Python
3. Implement risk tolerance prediction model in the dashboard
4. Problem Statement
5. Contents
6. Background
7. Project Plan
8. Loading Data
9. Display Data - head, shape, info, describe
10. Check for Duplicates
11. Check for Null Values
12. Check Data Types
13. EDA

* Describe the data
* What does the data represent

1. Feature Selection
2. Identify trends – Relationships of variables with Risk Tolerance
3. Model Selection
4. Evaluate Models
5. Hyperparameter Tuning/Grid Search
6. Results on Test Data
7. Feature Importance
8. Create Dashboard