# Assignment: Investment Decision-Making Using Expected Value and Simulation

## Introduction

In this assignment, you will explore how expected value and simulation techniques can support investment decisions. Using a dataset of simulated business scenarios, you will analyze profitability, assess risk, and make recommendations based on statistical insights.

## Dataset Overview

Use the dataset of simulated records of business performance, then answer the following questions.

Questions

1. What is the average profit across the sample simulations?
2. What is the probability of incurring a loss (negative profit)?
3. What is the expected value of profit for the sample?
4. How does holding cost impact overall profitability?
5. Based on the data, which simulation scenario would you recommend for investment and why?

## Grading Rubric

Your assignment will be graded based on the following criteria:

* Correct calculation of expected value and average profit (20 points)
* Accurate identification of loss scenarios and probability (20 points)
* Insightful analysis of holding cost impact (20 points)
* Clear recommendation with justification (20 points)
* Presentation and clarity of responses (20 points)