**Executive Summary**

***Short version: (1 minute)***

Good evening. We are team 2, made up of Harith, Michael, Sam, Ryan, and myself. **(next slide)**

This is our agenda for the presentation.

I’m going to start off with a quick executive summary, then Harith and Sam are going to explain the materials and methods that we used, followed by an overview of the team’s analysis and outputs by Ryan (or Michael), and Michael will close us out with discussion of lessons learned and conclusions.  **(next slide)**

Our project explores the use of the Moving Average Convergence Divergence (MACD) indicator in algorithmic trading, specifically for its utility in identifying optimal times to buy or sell stocks.

MACD, a staple in technical analysis and momentum trading, measures asset momentum by analyzing the relationship and crossover points between its two components, the MACD line and the signal line.

A positive MACD suggests upward momentum (bullish), while a negative MACD indicates the opposite (bearish). Traders often combine MACD with other analytical tools to enhance decision-making accuracy.

Our analysis focuses on the last three months of Apple stock, demonstrating MACD's application in momentum trading and discussing its advantages and limitations.

MACD is a trend-following indicator, calculated by subtracting the 26-period exponential moving average (EMA) from the 12-period EMA.

The signal line, a nine-period EMA of the MACD line, alongside the MACD, helps in generating buy or sell signals. **(next slide)**

The project also covers related concepts like Exponentially Weighted Moving Average (EWMA), short selling, long positions, and the significance of MACD crossovers and divergences in predicting trend reversal.

I will be followed by Harith, who will discuss the formula. **(next slide)**