A. ASSIGNMENT RECAP

- Write **a 2000-word report** and **record a 10-minute presentation** supported by slides.
- Analyze a potential new product project for **Coles Group** by estimating cash flows, calculating NPV and IRR, performing additional sensitivity analysis, providing a recommendation, and presenting findings in.
- Demonstrate comprehension of **capital budgeting principles** and effectively communicate results to **a non-technical executive audience**.

<u>Suggested Structure:</u>

1. **Executive Summary (Suggested 150 words)**
2. **Table of Contents (Suggested 150 words)**
3. **Introduction (Suggested 250 words)**
4. **Project Analysis (Suggested 500 words)**
   a. Cash Flow Estimations
   b. Capital Budgeting Analysis
   c. Net Present Value
   d. Internal Rate of Return
5. **Additional Analysis (e.g. sensitivity analysis) (Suggested500 words)**
   a. Recommendation (Suggested 150 words)
   b. Industry Research
   c. Risk Analysis
   d. Conclusion

B. KEYWORD EXPLANATION

1. **Net Present Value (NPV)**

- The net present value is the difference between the present value of future expected cash inflows and outflows of a project, calculated by discounting the net cash flows at the cost of capital. It represents the net value created by undertaking the project in present dollar terms.

NPV = Σ Present Value of Future Cash Flows = Σ (CFt / (1+r)t)

- Where CFt is the cash flow in period t and r is the discount rate.

2. **Internal Rate of Return (IRR)**

- The internal rate of return is the discount rate that makes the net present value of a project equal to zero. It represents the expected compound annual return the project generates expressed as a percentage.
- Mathematically, IRR solves the following equation when NPV is set to zero:

$$NPV = \Sigma (CFt / (1+IRR)t) = 0$$

3. **Free Cash Flow**

- Free cash flow represents the amount of cash generated by a firm after accounting for reinvestments needed to maintain operations. It equals net operating profit after taxes minus capital expenditures and is the cash available to pay investors.

FCF = Net Operating Profit After Taxes - Capital Expenditures

4. **Cost of Capital**

- A firm's cost of capital is the weighted average of the required return on its different securities used for financing, including debt, equity, and preferred stock based on their proportions in the capital structure. It represents the firm's opportunity cost of funds and is used to discount future cash flows to present value.

5. **Sensitivity Analysis**

- Sensitivity analysis is the process of examining how the output of a model or decision varies based on changes to the inputs or assumptions in the analysis. It is used to understand how sensitive the conclusions are to the parameters used for valuation.

6. **Capital Budgeting**

- Capital budgeting is the financial planning and evaluation process used by companies to analyze potential large-scale investments in tangible long-term or fixed assets such as property, plant, and equipment. It involves using various discounted cash flow techniques to assess the profitability of proposed projects and decide if they should be approved.