Assignment 6

Due on 2019-01-15, 11:59 AM ET

Unit 7 - Week 6

Course Outline

How to access the exams?

<table>
<thead>
<tr>
<th>Week</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introduction to the course</td>
</tr>
<tr>
<td>Week 2</td>
<td>Week 2 Exploration</td>
</tr>
<tr>
<td>Week 3</td>
<td>Week 3 Exploration</td>
</tr>
<tr>
<td>Week 4</td>
<td>Week 4 Exploration</td>
</tr>
<tr>
<td>Week 5</td>
<td>Week 5 Exploration</td>
</tr>
<tr>
<td>Week 6</td>
<td>Week 6 Exploration</td>
</tr>
</tbody>
</table>

Assignment 6

Due on 2019-01-15, 11:59 AM ET

On your assignment page, you will see a list of questions. For each question, you will be asked to submit a response. Your responses will be evaluated based on the criteria provided in the assignment guidelines.

Assignment Instructions

- All responses must be submitted by the due date.
- Late submissions will not be accepted.
- Responses must be original and not plagiarized.
- All work must be completed independently.

Guidelines for Submission

- Use clear and concise language.
- Show all your work.
- Provide references for any external sources used.

Questions

1. Calculate the present value of the cash flows for the first 10 years of a project, assuming a discount rate of 10%. The cash flows are as follows:

   Year | Cash Flow (in thousands)
   ---- | ---------------------
   0    | -1000                 
   1    | 200                   
   2    | 300                   
   3    | 400                   
   4    | 500                   
   5    | 600                   
   6    | 700                   
   7    | 800                   
   8    | 900                   
   9    | 1000                  
   10   | 1100                  

2. A company is considering investing in a new project with an initial cost of $500,000. The project is expected to generate cash inflows of $100,000 per year for 5 years. The company requires a minimum return of 12%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

3. A company is considering investing in a new machine that costs $200,000. The machine is expected to generate cash inflows of $50,000 per year for 10 years. The company requires a minimum return of 10%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the machine? Explain your reasoning.

4. A company is considering investing in a new project with an initial cost of $1 million. The project is expected to generate cash inflows of $200,000 per year for 10 years. The company requires a minimum return of 8%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

5. A company is considering investing in a new project with an initial cost of $5 million. The project is expected to generate cash inflows of $1 million per year for 10 years. The company requires a minimum return of 12%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

6. A company is considering investing in a new project with an initial cost of $10 million. The project is expected to generate cash inflows of $2 million per year for 10 years. The company requires a minimum return of 15%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

7. A company is considering investing in a new project with an initial cost of $15 million. The project is expected to generate cash inflows of $3 million per year for 10 years. The company requires a minimum return of 20%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

8. A company is considering investing in a new project with an initial cost of $20 million. The project is expected to generate cash inflows of $4 million per year for 10 years. The company requires a minimum return of 25%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

9. A company is considering investing in a new project with an initial cost of $25 million. The project is expected to generate cash inflows of $5 million per year for 10 years. The company requires a minimum return of 30%.

   a. Calculate the payback period of the project.
   b. Calculate the net present value (NPV) of the project.
   c. Calculate the internal rate of return (IRR) of the project.
   d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

10. A company is considering investing in a new project with an initial cost of $30 million. The project is expected to generate cash inflows of $6 million per year for 10 years. The company requires a minimum return of 35%.

    a. Calculate the payback period of the project.
    b. Calculate the net present value (NPV) of the project.
    c. Calculate the internal rate of return (IRR) of the project.
    d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

11. A company is considering investing in a new project with an initial cost of $35 million. The project is expected to generate cash inflows of $7 million per year for 10 years. The company requires a minimum return of 40%.

    a. Calculate the payback period of the project.
    b. Calculate the net present value (NPV) of the project.
    c. Calculate the internal rate of return (IRR) of the project.
    d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.

12. A company is considering investing in a new project with an initial cost of $40 million. The project is expected to generate cash inflows of $8 million per year for 10 years. The company requires a minimum return of 45%.

    a. Calculate the payback period of the project.
    b. Calculate the net present value (NPV) of the project.
    c. Calculate the internal rate of return (IRR) of the project.
    d. Based on your calculations, would you recommend the company to invest in the project? Explain your reasoning.