



DAT 610 Final Project Guidelines and Rubric

Overview

The final project for this course is the creation of a data analytic-enhanced risk analysis model with documentation and visualizations that accurately communicate the severity of risk and the importance of data analytic enhancement for a given organization and associated data sources. Throughout the course, you will be responsible for completing the formative milestones that will be used to inform the final submission.

This assessment will evaluate your mastery with respect to the following **course outcomes**:

- Evaluate established data analytic risk assessment techniques and practices for utility and accuracy in application to various data models
- Recommend business-appropriate enterprise risk management tools and techniques that support risk management programs, policies, and strategies
- Establish enterprise risk management visualization practices for organizations that adhere to industry standards while supporting organizational risk assessment and management programs
- Create audience-appropriate risk analysis models and visualizations that accurately communicate severity and levels of risk
- Articulate the importance of data analytics for successfully enhancing risk management programs, policies, and strategies

Prompt

Create an analysis report detailing the current state of Company XYZ's risk management, and propose policy and program improvements to enhance risk assessment within the enterprise.

Company XYZ, a property and casualty insurer, has a strong record of using data analytics to manage market risk, credit risk, and insurance risk. After a risk and control self-assessment revealed greater than expected operational losses (largely from fraudulent automobile accident personal injury claims), Company XYZ decided to commit the necessary resources to bolster its operational risk program. The company's stated goal is to have an operational risk management program that performs at the same high level as its other risk programs, all of which are to report into a single chief risk officer.

Company XYZ already has in place an industry-standard special investigations unit (SIU) that is responsible for investigating claims that are suspected of being fraudulent. The unit is understaffed, however, so it is unable to address the high volume of auto accident bodily injury claims that are deemed suspicious in the claims adjudication system. Company XYZ decides that its established SIU is the appropriate operational risk function on which to begin bolstering its operational risk management program. Among the investments needed by its SIU to address

operational losses to fraudulent claims, XYZ identified a top priority as a greater investment in data analytics to better help it rank order those claims that are most suspicious.

Company XYZ has also identified a need to invest in a risk management system to consolidate risk data from the entire organization, not just its SIU. Further, the company believes its risk management system should provide robust visualization of internal loss data and also integrate external loss data (to be made available by subscription).

Your assignment is to recommend a risk analysis approach that allows Company XYZ to prioritize its limited resources against the most suspicious auto accident bodily injury claims. Additionally, it is your assignment to recommend a risk management system technology platform that integrates the SIU analytic output with the internal loss data reported by other business functions within Company XYZ.

Specifically, the following **critical elements** must be addressed:

1. Risk Assessment Techniques and Practices

- a. Provide the background information for your organization. What are the risk assessment goals for the organization?
- b. What risk assessment programs, policies, strategies, and practices are currently in place within the organization? To what extent are these strategies appropriate for the organization? Consider the organization's current techniques and practices for risk assessment. Evaluate the existing techniques for their accuracy in assessing risk within the organization's data model.
- c. Recommend alternative techniques and practices that would improve the organization's risk management assessment accuracy. What evidence exists to support the improved accuracy and utility of these techniques for the organization?
- d. What research supports data analytic enhancement through risk assessment techniques and practices? Why is enhancing risk assessment potential important for this organization?

2. Enterprise Risk Management (ERM) Tools

- a. Recommend risk assessment and management tools that are appropriate for the organization's background and its risk assessment and management goals.
- b. Many ERM tools are available, but not all are appropriate for every organization. Describe the ERM tools that best support the organization's programs, policies, and strategies, and explain why you ultimately chose the ones you recommended. What supporting evidence or documentation exists to describe these ERM capabilities and organizational support?

3. Visualization Recommendations

- a. What are the current industry-standard risk management visualization techniques? Which ones have potential to support the organization's general risk goals? What supporting evidence or documentation is available to support your conclusions?
- b. Propose visualization strategies that support the organization's programs, policies, and strategies for risk assessment and management. Justify your proposal(s) with relevant research and examples where appropriate.

4. Presentation

Use your proposals to create a presentation that transparently communicates the level and severity of risk for stakeholders while highlighting the usability of the proposed tools. This is your opportunity to promote the use of data analytics in risk assessment and management.

- a. Create enterprise risk management visualizations that best demonstrate the organization's macro- and micro-level risks and their severity.
- b. Tailor your visualizations to the needs of your audience. This will require consideration of the experiences of your audience, the message you intend to deliver, and so on.
- c. Promote data analytics as a necessity for enhancing risk assessment through improving risk assessment and management programs, policies, and strategies for your company by explaining how using real data can make a significant difference for the organization.

Milestones

Milestone One: Develop an Operational Risk Management Proposal

In **task 1-2**, you will develop an operational risk management proposal for the chief risk officer at Company XYZ. The proposal should allow the company to address its immediate internal losses from fraudulent claims by prioritizing its special investigation unit's limited resources against the most suspicious auto accident bodily injury claims. Additionally, it is your assignment to recommend a risk management system technology platform that integrates the special investigations unit's analytic output with the internal loss data reported by other business functions within Company XYZ. **This milestone will be graded with the Milestone One Rubric.**

Milestone Two: Enterprise Risk Management

In **task 3-2**, you will evaluate risk management systems (RMS) for Company XYZ. The company's chief risk officer has asked you to recommend three RMS products for further evaluation. You are to evaluate each RMS for its suitability for Company XYZ and compare and contrast each against the others based on the strengths and weaknesses of each. **This milestone will be graded with the Milestone Two Rubric.**

Milestone Three: Visualization

In **task 5-2**, you will expand the scope of your RMS evaluation for Company XYZ to include visualization capabilities to support the operational risk management program. **This milestone will be graded with the Milestone Three Rubric.**

Milestone Four: Create a Presentation

In **task 7-2**, you will use your proposals to create a presentation that transparently communicates the level and severity of risk for stakeholders while highlighting the usability of the proposed tools. This is your opportunity to promote the use of data analytics in risk assessment and management. **This milestone will be graded with the Milestone Four Rubric.**

Final Project Rubric

Requirements of Submission: This assignment must follow these formatting guidelines: double spacing, 12-point Times New Roman font, one-inch margins, and APA citations.

Critical Elements	Exemplary (100%)	Proficient (90%)	Needs Improvement (70%)	Not Evident (0%)	Value
Risk Assessment Techniques and Practices: Organizational Background and Goals	Meets “Proficient” criteria, and risk assessment and management goals are connected to program, policy, and strategy enhancement	Describes the organizational background and accurately articulates the general risk assessment and management goals	Describes the organization’s background and articulates the general risk assessment and management goals, but with gaps in accuracy or clarity	Does not describe the organization’s background and articulate general risk assessment and management goals	6
Risk Assessment Techniques and Practices: Established Programs, Policies, Strategies, and	Meets “Proficient” criteria and supports evaluation with relevant examples and research	Evaluates the current risk assessment programs, policies, strategies, techniques, and practices for utility and accuracy in assessing risk within the organizational context	Defines the current programs, policies, strategies, techniques, and practices but does not evaluate them for utility and accuracy within the organizational context	Does not define the current programs, policies, strategies, techniques, and practices	9
Risk Assessment Techniques and Practices: Recommended Techniques and Practices	Meets “Proficient” criteria, and recommendations show evidence of an analysis of established practices in alternative environments	Recommends and supports techniques and practices that have the potential to improve risk assessment and management accuracy within the organization	Recommends techniques and practices for the organization but does not support the recommendations in terms of potential improvement of assessment and	Does not recommend techniques and practices for the organization’s risk assessment and management improvement	7
Risk Assessment Techniques and Practices: Support for Enhancement of Risk Assessment	Meets “Proficient” criteria, and claims and support are contextualized for the specific organizational environment and risk management goals	Supports claims of the importance of enhancing risk assessment potential within the organization with valid and credible research	Makes claims about the importance of enhancing risk assessment, but claims are not supported with valid and credible research	Does not make claims about the importance of enhancing risk assessment	9

Enterprise Risk Management (ERM) Tools: Recommendations	Meets “Proficient” criteria, and recommendations show evidence of a broad survey of relevant enterprise risk management tools	Recommends risk assessment and management tools that are appropriate given the organization’s background and general	Recommends risk assessment and management tools that are not appropriate given the organization’s background and general	Does not recommend risk assessment and management tools	7
Enterprise Risk Management (ERM) Tools: Defending Recommendations	Meets “Proficient” criteria, and defense is detailed in regard to the capabilities of relevant tools and applicability in support of the organizational agenda	Defends ERM recommendations in terms of their ability to support organizational programs, policies, and strategies as supported by relevant research/documentation	Defends ERM recommendations with relevant research/documentation, but not in terms of the recommendations’ ability to support organizational programs, policies, and strategies	Does not defend ERM recommendations with relevant research/documentati on	7
Visualization Recommendations: Industry-Standard Techniques	Meets “Proficient” criteria and provides an in-depth, detailed overview of the techniques and best practices mentioned	Outlines industry-standard visualization techniques and best practices that have potential for application to the organization	Outlines industry-standard visualization techniques and best practices, but not in terms of potential application to the organization	Does not outline industry- standard visualization techniques and best practices	9
Visualization Recommendations: Proposal	Meets “Proficient” criteria, and proposals are supported with relevant research and examples where appropriate	Proposes visualization strategies that support organizational programs, policies, and strategies for risk assessment and management with research support where appropriate	Determines visualization strategies that support organizational programs, policies, and strategies for risk assessment and management but does not include appropriate research support	Does not propose visualization strategies for the organization	9
Presentation: Micro and Macro Levels and Severity of Risk	Meets “Proficient” criteria, and visualizations are explicit and direct without unnecessary information	Visualizations accurately portray the macro and micro levels of risk and the severity of risk within the organization	Visualizations portray the macro and micro levels of risk and the severity of risk within the organization, but there are instances of	Visualizations do not portray the macro and micro levels of risk and the severity of risk for the organization	9

Presentation: Tailoring Visualizations	Meets “Proficient” criteria, and visualizations utilize creative methods	Visualizations are tailored to the needs of the audience and deliver the intended message	Visualizations deliver the intended message but are not tailored to the needs of the audience	Visualizations do not deliver the intended message	9
Presentation: Data Analytics Promotion	Meets “Proficient” criteria, and presentation is persuasive, clear, and uninhibited	Explains how using real data can make a significant difference within the context of the proposal and organization	Explains how using real data can make a significant difference, but not within the context of the proposal and	Does not explain how using real data can make a significant difference	9
Articulation of Response	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy to	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of	10
Earned Total					100