1. Task Description

Hello,

Mike Dobson, our CEO, heard about the results of our data mining efforts for the sales team and would like to better understand your work. He is considering expanding funding for future data mining efforts.

To that end, I would like you to prepare and deliver a presentation that explains the questions you have helped the sales team answer, the methods you used to answer those questions, and the results you delivered. In addition, I would like to get Mike thinking about how we can leverage data mining in the future to make data-driven decisions about all aspects of our eBusiness. Can you please conduct some research and create a slide or two that lists the types of questions data mining can help answer; one to two slides should be sufficient.

Remember, Mike doesn't have much data mining or general analytics knowledge beyond a few articles he has read. Please make sure that the presentation is appropriate.

In addition to the presentation for the CEO, I'd also like you to create a two- or three-page report detailing key take-aways and lessons you have learned about data analytics, making specific recommendations for how Blackwell should approach such projects in the future. This report is just for me so you can make it as technical as you feel it needs to be.

Regards,

Thanks,

Danielle

Danielle Sherman
Chief Technology Officer
Blackwell Electronics
www.blackwellelectronics.com

1. Task Solution

The solution for this task is divided in two documents, both documents will be loaded in the classroom.

- Task 3A - Use Cases of Data Mining.pdf
- Task 3B - Lessons Learned.docx

The lessons learned report will address aspects such as:

- Which aspects of the processes you followed worked well, and which didn't?

- How would you change aspects of the processes that didn't work well?

- What worked well (and didn't) while using RapidMiner?

- What advice would you give a new data analytics specialist undertaking a similar project?

The lessons learned will be documented in table 1 – Lessons learned, using 3 categories: Investigate Customer Patterns, Predicting Profitability and General.

Table 1 - Lessons Learned

Category	Topic	Problem/Success	Impact	Recommendation
Investigate Customer Patterns	Time Management	Inefficient use of the time reading the sources of information	Medium - Extra time was required to get back on track to complete the task within the timeframe	Use the time wisely to read documents and also to solve the tasks
	Plan of Attack	Use of plan of attack	High – The plan of attack was a helpful guide to conduct the activities	Keep using the plan of attack as starting point for future tasks.
	RapidMiner	Developed expertise in a new tool	High – The software was easy to learn and use, with high impact over the deliverables	Always use the software tutorials, as well YouTube videos
	Statistics knowledge	Results interpretation	Low – Review of theory is part of the professional life	Always read carefully and review examples to understand key concepts, before the task execution
Predicting Profitability	Machine Learning	When to use different machine learning algorithms	Medium – Read different documents to understand the difference between the algorithms	Always consider external resources to clarify key concepts

Category	Topic	Problem/Success	Impact	Recommendation
	Collaboration	Peer Review	High – The collaboration with other team members helps to validate your work and also to detect potential errors	Always conduct a peer review with at least with one classmate
General	Mentorship	Inefficient use of mentorship time	High – Potential delays in the deliverables due date	Share best practices to lead the team to run effective meetings