EBUS633 - Big Data Analytics for Business

Assignment 1 (50%)

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Assignment – Background

By focussing on the learnings from the first half of the module (week 1-6) and keeping the below information as the background, develop a report (2000 words):

- After finishing the programme you are currently enrolled at the University of Liverpool Management School, you have taken up a management role at an organisation

- As an enthusiast of analytics, you explain to your line manager the importance of visualization and regression (includes classification) that was learnt from the module Big Data Analytics for Business

- Motivated by the conversation, your line manager asks you to produce an executive report, which will help to develop a business case to adopt these two analytic techniques

Note
- Draw boundaries – industry/sector, org. characteristics, problem statement
- Explicitly state the assumptions (should be logical and plausible)

Assignment – Structure

Given that the report is going to be shared with the senior management team, the line manager suggests the following structure (six sections) for your report.

1. **Motivation (200 words)**
   - Explain why the organisation should adopt visualization and regression
   - You could assume a specific sector/industry for the organisation you are working in

2. **Literature review (400 words)**
   - Provide some background information about visualization and regression
     - What kind of problems can it be used to solve
     - Why is it suitable for big data analytics
     - What are the business values for using the technique

Assignment – Structure

Given that the report is going to be shared with the senior management team, the line manager suggests the following structure (six sections) for your report.

3. **Case examples (600 words)**
   - Presenting two real-world case examples
     - One discussing the application of visualization and another discussing the application of regression technique in business, with their benefits
     - Discuss details related to data processing/analysis, algorithms, findings, output validation, and performance impact

4. **Barriers (300 words)**
   - Discuss the limitations, assumptions, constraints, and foreseen challenges that can impede successful adoption of visualization and regression
     - Identify barriers from both technical and social perspective of an organisation

Assignment – Structure

Given that the report is going to be shared with the senior management team, the line manager suggests the following structure (six sections) for your report.

5. **Recommendations & Roadmap (300 words)**
   - Propose recommendations and roadmap for your organisation explaining the use case for visualization and regression (includes classification) and how they can be adopted

6. **Conclusion (200 words)**
   - Summarize the report by explaining the key takeaways for the organisation
   - Explicitly state the limitations of the report

Assignment – Weightages and Deadline

- **Weightage of Assignment 1** – 50%

- **Weightages allocated for different sections:**

  1. Motivation – 10%
  2. Literature review – 15%
  3. Case examples – 30%
  4. Barriers – 15%
  5. Recommendations & Roadmap – 15%
  6. Conclusion – 5%
  7. Presentation of the report (including the adherence to structure, well-written and citation of relevant references) – 10%

- **Deadline - 24 March 2022 by 12 noon**

Assignment – Pitfalls to be Avoided

- Too descriptive & Over-generalization (no boundaries set)
  - Logical and contextualized
  - Appreciation of the constraints within which organization operates while proposing interventions (feasibility)

- Not being critical and rigorous in the analysis
  - Achieving fit between the problem to be solved and analytical technique (validity)

- Not citing sources for the arguments/statements made

- Missing coherence in structuring

- Replicating content from other sources

- Procrastinating closer to the deadline

Assignment

- Any questions?