Anomaly Detection Techniques to Find Influential Users

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# A. Project Highlights

**Rubric A:** The summary includes each of the given elements, and the summary of each element is detailed. All the information in the summary is accurate.

The “given” elements to summarize are provided in the task directions as follows:

* The research question or organizational need that your capstone addressed (see task 2 section A1). If it needs to be revised from Task 2, you can do so here.
* The scope of your project (see task 2 section B2).
* An overview of your solution, including any tools and methodologies used (see task 2 sections B3 and C3).

You can reuse content from Task 2 as needed. You are allowed and encouraged to reuse any of your work. The similarity check will not check for plagiarism against your content.

# B. Project Execution

**Rubric B:** The summary accurately addresses how the execution of *each* element differed from the plan developed in part B of Task 2.

This part summarizes the project’s execution and any variances from the execution plan provided in Task 2. “Each” element for which to summarize variances are provided in the task directions as follows:

* The project plan (see Task 2 section B1).
* The project planning methodology (see Task 2 section B3).
* Project timeline and milestones (see Task 2 section B4).

If the element did not vary from Task 2, explain that there were no variances and why. You can reuse content from Task 2 as needed. You are allowed and encouraged to reuse any of your work. The similarity check will not check for plagiarism against your content.

# C. Data Collection Process

**Rubric C:** The discussion of the data selection and collection process includes specific details for *each*of the given elements.

This part summarizes the data selection, collection, processing, and governance issues. The “given” elements to summarize are provided in the task directions as follows:

* How the data selection and collection differed from your plan (see Task 2 section D3).
* How you handled any obstacles encountered while collecting your data (see Task 2 section D4).
* How you handled any unplanned data governance issues (see Task 2 section D5).

If the element did not vary from Task 2 or you did not encounter any unplanned issues, explain why. You can reuse content from Task 2 as needed. You are allowed and encouraged to reuse any of your work. The similarity check will not check for plagiarism against your content.

## C.1 Advantages and Limitations of Data Set

**Rubric C1:** The discussion addresses *both*the advantages and limitations of the data set, including specific examples of *both*. *All* discussed advantages and limitations apply to the data set that was used.

* Discuss at least one advantage of your data set, and provide at least one example of an advantage.
* Discuss at least one disadvantage of your data set, and provide at least one example of an advantage.

# D. Data Extraction and Preparation

**Rubric D:** The submission explains *both* the data extraction and data preparation processes, including details on why the processes were appropriate for the data. The explanation includes the tools and techniques that were used for *both*processes.

Discuss the data extraction and preparation process and their appropriateness (see Task 2 part D), and discuss the tools used for both extractions. If little or no extraction or processing was necessary, explain why.

# E. Data Analysis Process

## E.1 Data Analysis Methods

**Rubric E1:** The submission includes a thorough and accurate description of data analysis methods that are appropriate for the intended goals of the project.

Name and describe each method used to analyze the data. Include the method(s) used to support your hypothesis in Task 3 part F (below; also see Task 2 part C). Explain why each method was appropriate.

## E.2 Advantages and Limitations of Tools and Techniques

**Rubric E2:** The submission accurately discusses the advantages and the limitations of the tools and techniques used to analyze the data.

Discuss at least one advantage and one limitation of each tool used during the analysis (see Task 2 section C3).

## E.3 Application of Analytical Methods

**Rubric E3:** The submission includes a thorough step-by-step explanation of how the analytical methods were applied to the data and how *all* assumptions or requirements were verified.

Describe the steps used to complete each method used for the data analysis in part F of Task 3 (see Task 2 section C2). Describe the requirements for each method and how they were verified.

# F Data Analysis Results

## F.1 Statistical Significance

**Rubric F1:** A thorough evaluation of the statistical significance of the analysis is provided, and the evaluation uses accurate calculations.

This section should report the results of the planned statistical test(s) or model(s) from Task 2 section C4. For at least one analytic method provide all the items for a *statistical test* or a *model*:

For *statistical tests*, provide the following information:

* The null hypothesis (the opposite of your hypothesis).
* The name of the statistical test.
* The metric(s) generated from that test (e.g., a t-stat and the derived probability).
* The *alpha* value (denoted α; usually 1% or 5%) given in Task 2 section C4.
* The conclusion drawn, e.g., “There is sufficient evidence to reject the null hypothesis and support the claim that (your hypothesis).”

For *models*, provide the following information:

* The type of model, e.g., supervised regression, supervised classification, etc.
* The algorithm(s) and process used to develop the model.
* The metric(s) used to assess performance.
* The benchmark for the success of the above metric is given in Task 2 section C4
* The conclusion is drawn from that metric and how it supports or does not support your hypothesis.

## F.2 Practical Significance

**Rubric F2:** A thorough and accurate evaluation of the practical significance of the data analytics solution is provided, and the evaluation is supported by specific examples.

Discuss the practical significance of the results from F1. This can repeat what you wrote in Task 2 section C5 adjusting as necessary according to the results. Practical significance refers to how meaningful your findings are in practical application. Results are practically significant when the difference is large enough to be meaningful in real life. This is subjective; so try your best to frame the results as a success.

Include an example of how the client might apply your work discussed in section F1.

## F.3 Overall Success

**Rubric F3:** A thorough and accurate evaluation of the overall success and effectiveness of the project is provided.

Based on the results presented in F1 and F2, discuss how the project was successful. This section may repeat content from sections F1, and F2 above, and Task 2 section B6.

# G. Conclusion

## G.1 Summary of Conclusions

**Rubric G1:** The conclusions drawn from the analysis are summarized and are appropriate and logically consistent with the data set, chosen analytic methods, and stated goals of the project.

Summarize your conclusions resulting from the entire project. This section can combine, repeat, and expand on content from throughout Task 3.

## G.2 Effective Storytelling

**Rubric G2:** The explanation includes logical reasons why the chosen tools and graphical representations for visually communicating the findings support effective storytelling.

Summarize your visualizations and how they support effective storytelling. Discuss all graphical representations and the tools used for the development.

## G.3 Recommended Courses of Action

**Rubric G3:** The submission recommends *2*courses of action, and *both* are logical, based on the findings, follow logically from the analysis, and directly address the research question or organizational need of the project.

Provide TWO recommendations based on the results (section F2) and conclusion (section G1) of your data analysis. Explain how each recommendation relates to the research question or organizational need given in Task 2 section A1 or redefined in Task 3 part A.

# H Panopto Presentation

**Rubric H:** A link to a Panopto recording is provided, and the summary includes *each* of the given elements. The summary is appropriate for an audience of data analytics peers.

Provide a link to your Panopto video.

* You are required to use Panopto, and you need to first request access, [Panopto Access](https://wgu.hosted.panopto.com/). Gaining permission may take up to 48 hours.
* Your recording should include your voice, but showing your face is not required. If you need special accommodations, please contact [Assessment Services](mailto:assessmentservices@wgu.edu?subject=D195%20task%203%20Panopto%20Video) and alert your assigned course faculty.
* There is no minimum length, but it is not meant to be long. Depending on your project, approximately 5-15 minutes is a good length.

The video should provide the viewer with a bird’s-eye view of your project and how you conducted your analysis. Here are the points you should cover:

1. A summary of your research question or organizational need.
2. A summary demonstration of the functionality of any code you used for your data analytics solution.
3. An outline of the findings and implications of your analysis.

The video should summarize your question and findings. You can think of this as a “water cooler” version of your report. The evaluator should be able to watch the video and understand your project’s purpose and main argument. Then, for step 2, bring your code (or software analysis) on screen and step through how you conducted your analysis. Unfortunately, we don’t have an example video. However, I never see the video rejected unless it’s missing step 2 above.   
 

# References

No sources were cited.

# Appendix A

# Title of Appendix

Put any supporting material in these appendices. Add additional or delete superfluous appendices as needed.

# Appendix B

# Title of Appendix

Put any supporting material in these appendices. Add additional or delete superfluous appendices as needed.

# Appendix C

# Title of Appendix

Put any supporting material in these appendices. Add additional or delete superfluous appendices as needed.

# Appendix D

# Title of Appendix

Put any supporting material in these appendices. Add additional or delete superfluous appendices as needed.