RUBRIC

**A:QUESTION OR DECISION**

|  |  |  |
| --- | --- | --- |
| **NOT EVIDENT**  A description is not provided. | **APPROACHING COMPETENCE**  The description does not summarize a question or decision that can be addressed through analysis of the chosen data set. Or the question or decision is not relevant to a realistic organizational need or situation. Or the question does not use all variables in the data set. | **COMPETENT**  The description summarizes a question or decision that can be addressed through analysis of the chosen data set. The question or decision is relevant to a realistic organizational need or situation and uses all variables in the data set. |

**B:REQUIRED VARIABLES**

|  |  |  |
| --- | --- | --- |
| **NOT EVIDENT**  A description of the data set is not provided. | **APPROACHING COMPETENCE**  The description of the data set does not include *all* of the variables in the data set or does not indicate the specific type of data being described for *each* variable. Or the description does not include examples from the data set to support claims. | **COMPETENT**  The description includes *all* variables in the data set and indicates the specific type of data being described for *each* variable. The description includes examples from the data set to support claims. |

**C1:**[**PLAN TO ASSESS QUALITY OF DATA**](https://lrps.wgu.edu/provision/224664090)

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| --- | --- | --- |
| **NOT EVIDENT**  A proposal is not provided. | **APPROACHING COMPETENCE**  The proposal includes techniques and steps needed for assessing the quality of the data, but the techniques or the steps are not relevant or not appropriate for assessing the quality of the data in the data set. | **COMPETENT**  The proposal includes a detailed description of the techniques and steps needed for assessing the quality of the data in the selected data set. |

**C2:**[**JUSTIFICATION OF APPROACH**](https://lrps.wgu.edu/provision/224664090)

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| **NOT EVIDENT**  A justification is not provided. | **APPROACHING COMPETENCE**  The justification includes the characteristics of the data being assessed, but the justification does not reference the approach used to assess the quality of the data. Or the justified approach does not align with the selected data set. | **COMPETENT**  The justification includes the characteristics of the data being assessed, references the approach used to assess the quality of the data, and aligns with the selected data set. |

**C3:**[**JUSTIFICATION OF TOOLS**](https://lrps.wgu.edu/provision/224664090)

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| **NOT EVIDENT**  A justification is not provided. | **APPROACHING COMPETENCE**  The justification describes the benefits of using the programming language, including any libraries and packages used to clean the data, but does not include specific examples of how these tools are ideal for cleaning this data as opposed to other available tools. | **COMPETENT**  The justification describes the benefits of using the programming language, including any libraries and packages used to clean the data, and includes specific examples of how these tools are ideal for cleaning this data as opposed to other available tools. |

**C4:PROVIDE THE CODE**

|  |  |  |
| --- | --- | --- |
| **NOT EVIDENT**  The submission does not provide any code. | **APPROACHING COMPETENCE**  The submission provides a document of code, but the code is incomplete, or the code is not in an annotated executable script file. Or the code provided could not be used to assess the quality of the data in the data set. | **COMPETENT**  The submission provides a document of the annotated code in an executable script file that could be used to assess the quality of the data in the data set. |

**D1:**[**CLEANING FINDINGS**](https://lrps.wgu.edu/provision/224664090)

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| --- | --- | --- |
| **NOT EVIDENT**  A description is not provided. | **APPROACHING COMPETENCE**  The description includes the findings for *some* of the data quality issues found by running the code from part C, but the description contains inaccuracies, or the description does not include *all* of the data quality issues. | **COMPETENT**  The description accurately includes *all* of the data quality issues found by running the code from part C. |

**D2:**[**JUSTIFICATION OF MITIGATION METHODS**](https://lrps.wgu.edu/provision/224664090)

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| --- | --- | --- |
| **NOT EVIDENT**  A justification is not provided. | **APPROACHING COMPETENCE**  The justification includes mitigation methods that are not specific to the data quality issues listed in part D1. Or the methods could not be used to mitigate the data quality issues. | **COMPETENT**  The justification includes the specific mitigation methods for *all* data quality issues listed in part D1. |

**D3:**[**SUMMARY OF THE OUTCOMES**](https://lrps.wgu.edu/provision/224664090)

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| --- | --- | --- |
| **NOT EVIDENT**  A summary is not provided. | **APPROACHING COMPETENCE**  The summary details the outcome of the implementation of *some* but not *all* of the data-cleaning steps. Or the summarized outcomes are not plausible given the interventions. | **COMPETENT**  The summary details the outcome of the implementation of *each* data-cleaning step. The summarized expected outcomes are plausible given the interventions. |

**D4:**[**MITIGATION CODE**](https://lrps.wgu.edu/provision/224664090)

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| **NOT EVIDENT**  No code is provided. | **APPROACHING COMPETENCE**  The provided code is incomplete or is not in an annotated, executable script file. Or the code provided could not be used to mitigate data quality issues in the data set. | **COMPETENT**  The provided code is in an annotated executable script file that could be used to mitigate the data quality issues in the data set. |

**D5:**[**CLEAN DATA**](https://lrps.wgu.edu/provision/224664090)

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| **NOT EVIDENT**  No data set is provided. | **APPROACHING COMPETENCE**  The provided data set contains data quality issues that should have been mitigated. Or the data set is missing variables from the chosen data set. Or the file is not in a CSV format. | **COMPETENT**  The cleaned data set is provided in a CSV format created from the raw data and includes the complete list of variables from the chosen data set. |

**D6:**[**LIMITATIONS**](https://lrps.wgu.edu/provision/224664090)

|  |  |  |
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| **NOT EVIDENT**  No limitations are summarized. | **APPROACHING COMPETENCE**  1 or more relevant limitations of the data-cleaning process are not included in the summary, or the summary is inaccurate. | **COMPETENT**  The limitations of the data-cleaning process are summarized completely and accurately. |

**D7:**[**IMPACT OF LIMITATIONS**](https://lrps.wgu.edu/provision/224664090)

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| **NOT EVIDENT**  The discussion does not address the impact of any limitations summarized in part D6. | **APPROACHING COMPETENCE**  The discussion addresses the impact of the limitations summarized in part D6, but the discussion does not align with the question or decision described in part A. | **COMPETENT**  The discussion addresses the impact of the limitations summarized in part D6 and aligns with the question or decision described in part A. |

**E1:PRINCIPAL COMPONENTS**

|  |  |  |
| --- | --- | --- |
| **NOT EVIDENT**  Principal components are not identified, or the output of the principal components loading matrix is not provided. | **APPROACHING COMPETENCE**  The total number of identified principal components is inaccurate, or the output of the principal components loading matrix is inaccurate. | **COMPETENT**  The total number of principal components is accurately identified, and the output of the principal components loading matrix is accurate. |

**E2:CRITERIA USED**

|  |  |  |
| --- | --- | --- |
| **NOT EVIDENT**  A justification is not provided. | **APPROACHING COMPETENCE**  The justification for the reduced number of principal components is inaccurate or incomplete. Or a screenshot of a scree plot is not included. | **COMPETENT**  The justification for the reduced number of principal components is accurate and complete and includes a screenshot of a scree plot. |

**E3:BENEFITS**

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| --- | --- | --- |
| **NOT EVIDENT**  A description is not provided. | **APPROACHING COMPETENCE**  The description of how the organization would benefit from PCA is illogical or inaccurate. | **COMPETENT**  The description of how the organization would benefit from PCA is logical and accurate. |

**F:VIDEO**

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| **NOT EVIDENT**  The submission does not provide a Panopto video recording. | **APPROACHING COMPETENCE**  A Panopto video recording is provided that includes a demonstration of the functionality of the code used for the analysis, but an identification of the version of the programming environment is not provided, all of the listed points are not discussed, or the video does not capture both the presenter and the vocalized presentation of the functioning code in a Panopto video recording. | **COMPETENT**  A Panopto video recording is provided that includes a demonstration of the functionality of the code used for the analysis and an identification of the version of the programming environment. The demonstration includes all of the listed points. For the duration of the presentation, the video captures both the presenter and the vocalized presentation of the functioning code in a Panopto video recording. |

**G:SOURCES OF THIRD-PARTY CODE**

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| --- | --- | --- |
| **NOT EVIDENT**  Web sources used are not acknowledged. | **APPROACHING COMPETENCE**  The submission acknowledges only some of the web sources used to acquire data or third-party code. Or the web sources are not reliable. | **COMPETENT**  The submission acknowledges *all* web sources used to acquire data or third-party code, and *all* of the web sources are reliable. |

**H:**[**SOURCES**](https://lrps.wgu.edu/provision/71484321)

|  |  |  |
| --- | --- | --- |
| **NOT EVIDENT**  The submission does not include both in-text citations and a reference list for sources that are quoted, paraphrased, or summarized. | **APPROACHING COMPETENCE**  The submission includes in-text citations for sources that are quoted, paraphrased, or summarized and a reference list; however, the citations or reference list are incomplete or inaccurate. | **COMPETENT**  The submission includes in-text citations for sources that are properly quoted, paraphrased, or summarized and a reference list that accurately identifies the author, date, title, and source location as available. |

**I:**[**PROFESSIONAL COMMUNICATION**](https://lrps.wgu.edu/provision/27641407)

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| --- | --- | --- |
| **NOT EVIDENT**  Content is unstructured, is disjointed, or contains pervasive errors in mechanics, usage, or grammar. Vocabulary or tone is unprofessional or distracts from the topic. | **APPROACHING COMPETENCE**  Content is poorly organized, is difficult to follow, or contains errors in mechanics, usage, or grammar that cause confusion. Terminology is misused or ineffective. | **COMPETENT**  Content reflects attention to detail, is organized, and focuses on the main ideas as prescribed in the task or chosen by the candidate. Terminology is pertinent, is used correctly, and effectively conveys the intended meaning. Mechanics, usage, and grammar promote accurate interpretation and understanding. |

WEB LINKS

[Panopto Access](https://wgu.hosted.panopto.com/)

Sign in using the "WGU" option. If prompted, log in with your WGU student portal credentials, which should forward you to Panopto's website. If you have any problems accessing Panopto, please contact Assessment Services at assessmentservices@wgu.edu. It may take up to two business days to receive your WGU Panopto recording permissions once you have begun the course.

[Panopto FAQs](https://cm.wgu.edu/t5/Frequently-Asked-Questions/Panopto-FAQs/ta-p/3611)

[Panopto How-To Videos](https://wgu.hosted.panopto.com/Panopto/Pages/Sessions/List.aspx#folderID=%22291182f0-cb6a-466a-929c-2cbac05f0109%22)

[D206 Definitions and Data Files](https://lrps.wgu.edu/provision/354726028)