## Assessment and Task Details

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| Course Name: | Data Analytics Undergraduate Capstone |
| Course Code: | D502 |
| Assessment Code: | BHN1 |
| Assessment Launch Date (MMYY): |  |
| Task Name: | Task 3: Project Report |
| Task Order: | 3 |

## Competencies

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| 4123.1.1 | Capstone | The learner integrates and synthesizes competencies from across the degree program, thereby demonstrating the ability to participate in and contribute value to the chosen professional field. |

## Design Notes and Evidence Statements

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Introduction

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| Before starting this task, ensure that Tasks 1 and 2 have a passing score. If Task 1 or 2 has not yet passed, your Task 3 submission will be returned without evaluation.  In this task, you will complete your capstone by writing a report that summarizes your data analytics project, including an overview of the project, a discussion of how the execution of your project differed from your plan, a discussion of your project methodology, and an evaluation of your project results. You will also submit a recorded summary of your project. |

## Scenario

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Assumptions

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## Requirements

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| *Your submission must be your original work. No more than a combined total of 30% of the submission and no more than a 10% match to any one individual source can be directly quoted or closely paraphrased from sources, even if cited correctly. The similarity report that is provided when you submit your task can be used as a guide.*  *You must use the rubric to direct the creation of your submission because it provides detailed criteria that will be used to evaluate your work. Each requirement below may be evaluated by more than one rubric aspect. The rubric aspect titles may contain hyperlinks to relevant portions of the course.*  *Tasks may* ***not*** *be submitted as cloud links, such as links to Google Docs, Google Slides, OneDrive, etc., unless specified in the task requirements. All other submissions must be file types that are uploaded and submitted as attachments (e.g., .docx, .pdf, .ppt).*  Write a report summarizing your completed data analytics capstone project by doing the following:  **Project Overview**  A.  Summarize the following elements of your capstone project:  •  the research question or organizational need that your capstone addressed  •  the scope of your project  •  an overview of your solution, including any tools and methodologies used  **Project Plan**  B.  Summarize the execution of your project, including how the execution of the following elements differed from the plan developed in part B of Task 2:  •  project plan  •  project planning methodology  •  project timeline and milestones  **Methodology**  C.  Discuss your data selection and collection process in detail, including each of the following elements:  •  how your actual data selection and collection process differed from your plan  •  how you handled any obstacles you encountered while collecting your data  •  how you handled any unplanned data governance issues  1.  Discuss the advantages and limitations of the data set you used.  D.  Explain your data extraction and data preparation processes, including the tools and techniques you used, and explain why these processes were appropriate for your data.  E.  Report on your data analysis process by doing the following:  1.  Describe the methods you used to analyze the data.  2.  Discuss the advantages and limitations of the tools and techniques you used to analyze the data.  3.  Provide a step-by-step explanation of how you applied the analytical methods in part E1 to the data, including how you verified that the data satisfied the assumptions or requirements for any analytical methods you used.  **Results**  F.  Evaluate the success of your data analytics project by doing the following:  1.  Evaluate the output of your data analytics solution or model, including calculations or metrics for accuracy.  2.  Evaluate the practical significance of your data analytics solution, including specific examples.  3.  Evaluate the overall success and effectiveness of the project.  G.  Summarize the key takeaways of your analysis by doing the following:  1.  Summarize the conclusions drawn from your analysis.  2.  Explain why your chosen tools and graphical representations for visually communicating findings support effective storytelling.  3.  Recommend **two** courses of action based on your findings.  H.  Provide a link to a Panopto recording in which you present a summary of your capstone project and findings from the analysis for an audience of data-analytics peers. Your summary should include the following elements:  •  a summary of your research question or organizational need  •  a demonstration of the functionality of any code you used for your data analytics solution  •  an outline of the findings and implications of your analysis  *Note: Please submit a single recording that covers all elements. The suggested length of your video should be approximately 15-20 minutes.*  *Note: For instructions on how to access and use Panopto, use the "Panopto How-To Videos" web link provided below. To access Panopto's website, navigate to the web link titled "Panopto Access" and then choose to log in using the “WGU” option. If prompted, log in using your WGU student portal credentials, and then it will forward you to Panopto’s website.*  *To submit your recording, upload it to the Panopto drop box titled “BSDA Capstone – BNH1 | D502” Once the recording has been uploaded and processed in Panopto's system, retrieve the URL of the recording from Panopto and copy and paste it into the Links option. Upload the remaining task requirements using the Attachments option.*  **Appendices**  I.  Provide evidence of project completion by submitting any of the following elements that are relevant to your project:  •  the code you used to support your project  •  a copy of or link to *all* data you used for the data analytics solution  •  web sources that were used to acquire the data or segments of third-party code to support the application  •  other relevant project deliverables.  J. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.  K. Demonstrate professional communication in the content and presentation of your submission. |

Reference List

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Web Links

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| Panopto Access | [https://wgu.hosted.panopto.com](https://www.google.com/url?q=https%3A%2F%2Fwgu.hosted.panopto.com%2F&sa=D&sntz=1&usg=AFQjCNHN6_jTxGWiFHrl0e76fBx-jnJj3Q) | 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](mailto: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](https://www.google.com/url?q=https%3A%2F%2Fwgu.hosted.panopto.com%2FPanopto%2FPages%2FSessions%2FList.aspx%23folderID%3D%2522291182f0-cb6a-466a-929c-2cbac05f0109%2522&sa=D&sntz=1&usg=AFQjCNE4z0bn4SGC3lRsnOX2UUFfMYZyyQ) |  |

## Supporting Documents

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**Scoring Rubric**

*Each required element in the assessment requirements* ***must have*** *a corresponding scoring aspect in the rubric. Any scores of* ***Not Evident*** *or* ***Approaching Competence*** *on* ***any*** *aspect will result in the learners failing the assessment. Learners should aim to pass their task within three submission attempts.*

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| Aspect Title | Not Evident | Approaching Competence | Competent | Learning Resource URL |
| A. Project Highlights | A summary of the given elements of the capstone project is not provided. | The summary is missing 1 or more of the given elements or is not detailed or includes inaccurate information. | The summary includes *each* of the given elements, and the summary of *each* element is detailed. *All* the information in the summary is accurate. | <COS/LR Link> |
| B. Project Execution | A summary of the execution of the project is not provided. | 1 or more of the given elements are missing from the summary of the execution of the project, or the summary of 1 or more of the elements does not accurately address how the execution differed for *each* element from the plan developed in part B of Task 2. | The summary accurately addresses how the execution of *each* element differed from the plan developed in part B of Task 2. |  |
| C. Data Collection Process | A discussion of the data selection and data collection process is not provided. | 1 or more of the given elements are missing from the discussion of the data selection and collection process, or the discussion does not include specific details for *each* of the given elements. | The discussion of the data selection and collection process includes specific details for *each* of the given elements. |  |
| C1. Advantages and Limitations of Data Set | A discussion of neither the advantages nor the limitations of the dataset is provided. | The discussion addresses *either* the advantages or the limitations of the dataset but not *both*. Or specific examples are not included for the discussed advantages and limitations. Or 1 or more of the discussed advantages or limitations do not apply to the data set that was used. | 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. |  |
| D. Data Extraction and Preparation | The submission explains neither the data extraction nor the data preparation processes. | The submission explains *either* the data extraction or the data preparation processes, but not *both*. Or the explanation does not include details on why the processes were appropriate for the data. Or the explanation is missing either the tools or the techniques for 1 or *both* processes. | 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. |  |
| E1. Data Analysis Methods | The submission does not include a description of data analysis methods. | The submission includes a description of data analysis methods, but the description is either superficial or *any* of the information is inaccurate, or the methods are inappropriate for the intended goals of the project. | The submission includes a thorough and accurate description of data analysis methods that are appropriate for the intended goals of the project. |  |
| E2. Advantages and Limitations of Tools and Techniques | The submission discusses neither the advantages nor the limitations of the tools and techniques used to analyze the data. | The submission discusses either the advantages or the limitations of the tools and techniques used to analyze the data, but not *both*. Or the discussion contains accuracies. | The submission accurately discusses the advantages and the limitations of the tools and techniques used to analyze the data. |  |
| E3. Application of Analytical Methods | The submission does not include an explanation of how analytical methods were applied to the data. | The submission includes an explanation of how analytical methods were applied to the data, but the explanation is either superficial or does not include *each* step of the process. Or the submission does not explain how *all* assumptions or requirements for the data were verified. | 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. |  |
| F1. Evaluation of Output | An evaluation of the output of the data analytics solution or model is not provided. | A superficial evaluation of the output of the data analytics solution or model is provided, or the evaluation does not use calculations or metrics for accuracy | A thorough evaluation of the output of the data analytics solution or model is provided, and the evaluation uses calculations or metrics for accuracy. |  |
| F2. Practical Significance | An evaluation of the practical significance of the data analytics solution is not provided. | A superficial or inaccurate evaluation of the practical significance of the data analytics solution is provided. Or the evaluation is not supported by specific examples. | A thorough and accurate evaluation of the practical significance of the data analytics solution is provided, and the evaluation is supported by specific examples. |  |
| F3. Overall Success | An evaluation of the overall success and effectiveness of the project is not provided. | A superficial or inaccurate evaluation of the overall success and effectiveness of the project is provided. | A thorough and accurate evaluation of the overall success and effectiveness of the project is provided. |  |
| G1. Summary of Conclusions | A summary of conclusions drawn from the analysis is not provided. | The conclusions drawn from the analysis are not summarized, are inappropriate, or are logically inconsistent with the data set, chosen analytic methods, or stated goals of the project. | 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. |  |
| G2. Effective Storytelling | An explanation of why the chosen tools and graphical representations for visually communicating the findings support effective storytelling is not provided. | The explanation does not include logical reasons why the chosen tools and graphical representations for visually communicating the findings support effective storytelling. | The explanation includes logical reasons why the chosen tools and graphical representations for visually communicating the findings support effective storytelling. |  |
| G3. Recommended Courses of Action | The submission does not recommend 2courses of action based on the findings. | The submission recommends 2 courses of action, but 1 or *both* of the recommendations are illogical, do not appear to be based on the findings, do not follow logically from the analysis, or do not directly address the research question or organizational need of the project. | 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. |  |
| H. Panopto Presentation | A link to a Panopto recording is not provided. | A link to a Panopto recording is provided, but the summary is missing 1 or more of the given elements. Or the summary is not appropriate for an audience of data-analytics peers. | 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. |  |
| I. Evidence of Completion | The submission does not provide evidence of project completion. | The submission attempts to provide evidence of project completion, but the element or elements submitted do not fully represent the project. | The submission provides evidence of project completion, and the elements submitted fully represent the project. |  |
| J. Sources | The submission does not include both in-text citations and a reference list for sources that are quoted, paraphrased, or summarized. | The submission includes in-text citations for sources that are quoted, paraphrased, or summarized and a reference list; however, the citations or reference list is incomplete or inaccurate. | 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. | <https://lrps.wgu.edu/provision/71484321> |
| K. Professional Communication | Content is unstructured, is disjointed, or contains pervasive errors in mechanics, usage, or grammar. Vocabulary or tone is unprofessional or distracts from the topic. | Content is poorly organized, is difficult to follow, or contains errors in mechanics, usage, or grammar that cause confusion. Terminology is misused or ineffective. | 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. | <https://lrps.wgu.edu/provision/27641407> |

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| Development Team Members: | *Developer:* |  | *SMEs:* |  |
| *Editor:* |  |
| Graduate, Undergraduate, or Both: | | |  | |
| Domain Number: | | |  | |
| APA citation style required? (Y/N) | | |  | |
| Potential use of proprietary company information? (Y/N) | | |  | |
| Potential use of human subjects? (Y/N) | | |  | |

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|  | Kickoff | Draft Creation Complete | Copyedit | Peer Review | Preapproval Finalization | PDM/APM Approval |
| **Completed By**: |  |  |  |  |  |  |
| Date: |  |  |  |  |  |  |