**Unit 5**

**Reading Task:**

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| |  |  | | --- | --- | | **Unit 5 - Discussion Board** | | | **Task Type:** | Discussion Board | | **Deliverable Length:** | See assignment details | | **Points Possible:** | 75 | | **Description:**  **Primary Response is due by Thursday (11:59:59pm Central), Peer Responses are due by Saturday (11:59:59pm Central).**  **Primary** **Response:** Within the Discussion Board area, write 300-500 words that respond to the following questions with your thoughts, ideas, and comments. This will be the foundation for future discussions by your classmates. Be substantive and clear, and use examples to reinforce your ideas.  For this Discussion Board, please complete the following:  Review and reflect on the knowledge you have gained from this course. Based on your review and reflection, write at least 300-500 words on the following:   * What were the most compelling topics learned in this course? * How did participating in discussions help your understanding of the subject matter? Is anything still unclear that could be clarified?   **Responses to Other Students:** Respond to at least 2 of your fellow classmates with at least a 100-200 word reply about his or her Primary Task Response regarding items you found to be compelling and enlightening. To help you with your discussion, please consider the following questions:   * What did you learn from your classmate's posting? What additional questions do you have after reading the posting? * What clarification do you need regarding the posting? * What differences or similarities do you see between your posting and other classmates' postings?   **For assistance with your assignment, please use your text, Web resources, and all course materials.**  **Discussion Board Rubric**   |  |  |  |  | | --- | --- | --- | --- | | **Expectation** | **Points Possible** | **Points Earned** | **Comments** | | **Application of Learning Material Content:** Post demonstrates understanding of Learning Material content. | 20 |  |  | | **Application of Course Knowledge:** Post contributes unique perspectives or insights gleaned from text/learning resources, or specified by assignment. | 20 |  |  | | **DB Responses:** Responds substantively to two posts. Responses encourage interaction in the Discussion Board and classroom community. | 20 |  |  | | **Organization:** Post presents information logically and is clearly relevant to discussion topic. | 8 |  |  | | **Professional Language:** Posts contain accurate grammar, spelling, and/or punctuation with few or no errors. **Any resources should be cited in APA format or style specified in the assignment.** | 7 |  |  | | **Total Points** | 75 |  |  | | **Total Points Earned** |  |  |  |   View a downloadable version of the [Discussion Board Grading Rubric](https://resources.careered.com/LCMSFileSharePreview/Resources/MSExcelWorkbook/DB_Rubric_75_300-400_Level.xlsx). | | | **Course Objectives:** | | | **Model Answer:** | | |

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| |  |  | | --- | --- | | **Unit 5 - Individual Project** | | | **Task Type:** | Individual Project | | **Deliverable Length:** | 3-5 pages (not including cover page and resource page) | | **Points Possible:** | 125 | | **Description:**  **Assignment Details**  Creating a pipeline that ingests data, stores data, cleans and prepares data, and makes predictions is common within a big data ecosystem. Many companies do this on a very large scale and across many business functions and products. During Week 5, you will construct an end-to-end solution that ingests, stores, and predicts market orders. The data to use are located at <https://www.pubnub.com/developers/realtime-data-streams/financial-securities-market-orders/>.  The project deliverables include the following:   * Ingest the data from <https://www.pubnub.com/developers/realtime-data-streams/financial-securities-market-orders/> using tools such as Python. * Construct a predictive analytics solution using Python libraries (such as Scikit-Learn) to predict future market orders. * The submission should include the code to connect, ingest, predict, and interpret. * Provide the code and a discussion on the aspects of design, including end point connection, the ingest approach, the prediction algorithm, and interpretation.   + Additionally, discuss how the algorithm could be optimized, such as with feature engineering. * Once complete, submit your assignment for grading in Microsoft Word document.   **Individual Project Rubric**  The Individual Project (IP) Grading Rubric is a scoring tool that represents the performance expectations for the IP. This Individual Project Grading Rubric is divided into components that provide a clear description of what should be included within each component of the IP. It's the roadmap that can help you in the development of your IP.   |  |  |  |  | | --- | --- | --- | --- | | **Expectation** | **Points Possible** | **Points Earned** | **Comments** | | **Identification:** Identify streaming data analytics principles while examining case studies and learning about applicable tools to reinforce the concepts. | 30 |  |  | | **Analysis:** Analyze the delivery of streaming data to other applications and visualization tools. | 30 |  |  | | **Python:** Load the assignment data into Python. | 30 |  |  | | **Organization:** Assignment presents information logically and is clearly relevant to discussion topic. | 25 |  |  | | **Professional Language:** Assignment contains accurate grammar, spelling, and punctuation with few or no errors. | 10 |  |  | | **Total Points** | 125 |  |  | | **Total Points Earned** |  |  |  |   **Reference**  PubNub. (2021). *Market orders*. <https://www.pubnub.com/developers/realtime-data-streams/financial-securities-market-orders/> | | | **Course Objectives:**   * Analyze the delivery of streaming data to other applications and visualization tools. * Demonstrate an understanding of streaming data analytics principles while examining case studies and learning about applicable tools to reinforce the concepts. * Recognize different types of big data and streaming data sources and how to use them in strategic and operational decisions. | | | **Model Answer:**  The solution should include the following:   * + Code using Python   + Code to ingest the data   + Code to predict the quantity   + Code to provide the results (e.g. R2, ROC Curve) | | |

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| |  |  | | --- | --- | | **Unit 5 - Live Chat Extra Credit Summary** | | | **Task Type:** | Live Chat | | **Deliverable Length:** | 200 words | | **Points Possible:** | 15 | | **Description:**  In this class, you have the opportunity to receive credit for attending Live Chats or reviewing the chat archive. This opportunity is available once per week. To receive these points, you can either:   1. Attend the Live Chat session.  or 2. Review the archived chat session and submit a 200-word summary of the content. The archive review summary must meet the expectations described below.  * Summarize the content of the chat. Some ideas for what to include are a description of what information was covered and how you will apply this information to your academic or professional work. * Label the document "Chat Credit" with the date the Live Chat was presented. * A summary must be submitted within 1 week of the Live Chat to be considered for credit.   Your instructor has the discretion to determine whether to award the points. A summary must meet each of these guidelines. Points are awarded on an all-or-nothing basis.  To submit your summary, head to the assignment list and select Unit 5 - Live Chat Extra Credit Summary.  View the [Individual Project Demo](https://careered.libguides.com/ctu/success/classroom#s-lg-box-wrapper-26053866) for guidance on how to submit your chat summary as an Individual Project via the Virtual Classroom or the CTU Mobile app. | | | **Course Objectives:**   * Analyze the delivery of streaming data to other applications and visualization tools. * Demonstrate an understanding of streaming data analytics principles while examining case studies and learning about applicable tools to reinforce the concepts. * Recognize different types of big data and streaming data sources and how to use them in strategic and operational decisions. | | | **Model Answer:**  Students are required to meet all of the expectations as outlined in the assignment. | | |

**Optional Live Session Talking Points:**

**Unit Resources:**

No Resources Created