Module 12 XN Project – Individual Contribution

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Summarizing the project:

The objective of this project is to identify and define the needs for data preparation, including data cleaning and exploratory data analysis (EDA), to ensure that there is always a supply of accurate and useful data for further investigation and decision-making.

The Los Angeles Centre of Photography (LACP) is embarking on an ambitious project to develop a cutting-edge Portfolio Reviews Program, aimed at revolutionizing the way participants and reviewers are paired and schedules are created. The program will leverage the power of Python, advanced algorithms, and sophisticated data structures to efficiently match participants with their preferred reviewers and optimize scheduling arrangements.

The first major milestone of the project involves designing and implementing reliable data structures. These structures will be carefully crafted to handle the diverse and complex data involved in the portfolio review process. They will facilitate seamless storage, retrieval, and manipulation of participant and reviewer information, ensuring the program operates smoothly and efficiently.

Another crucial aspect of the project is the implementation of data processing techniques specifically tailored for surveys. This will involve developing robust algorithms to analyze and interpret survey responses provided by participants, enabling the program to gain valuable insights into their preferences, needs, and goals. By effectively processing survey data, the Portfolio Reviews Program will be able to make intelligent and informed decisions when matching participants with their preferred reviewers.

The next milestone in the project is the implementation of advanced scheduling logic. This will involve the use of sophisticated algorithms to create optimal schedules that minimize conflicts, maximize efficiency, and accommodate participants' preferences as closely as possible. The scheduling component will be carefully designed to handle various constraints, such as time slots, reviewer availability, and participant preferences, ensuring a well-organized and seamless experience for all involved.

Extensive testing will be conducted to ensure the program's functionality, robustness, and accuracy. Rigorous testing scenarios will be devised to evaluate the system under various conditions and potential edge cases, guaranteeing its reliability and effectiveness. Any issues or bugs that arise during testing will be addressed promptly, with iterative improvements implemented to refine and enhance the program.

Ultimately, the Los Angeles Centre of Photography's Portfolio Reviews Program aims to provide a comprehensive and user-friendly platform that showcases its features and successful implementation. By focusing on the benefits, it brings to the Portfolio Reviews Program, the executive summary highlights the program's ability to streamline and optimize the pairing and scheduling process, ensuring an exceptional experience for both participants and reviewers. With its emphasis on efficient algorithms, reliable data structures, and thorough testing, the program promises to be a game-changer in the world of portfolio reviews, offering a seamless and personalized experience for all involved.

Individual Contribution :

In preparation for the Portfolio Reviews Program at the Los Angeles Centre of Photography, I have successfully completed a comprehensive project scope report, which outlines the project's needs, expectations, acceptance criteria, and constraints. Through meticulous analysis, I have identified the necessary changes required for the program's development and implementation. Furthermore, I have prepared a concise and informative PowerPoint presentation for the mid-term presentation, highlighting the key aspects of the project, and showcasing its progress. These efforts have ensured that all stakeholders are aligned with the project's goals and have a clear understanding of its scope. The project scope report and mid-term presentation have provided a solid foundation for the successful execution of the Portfolio Reviews Program, bringing us closer to achieving our objectives and delivering a high-quality solution to the Los Angeles Centre of Photography.

In addition to the project scope report and mid-term presentation, I have also conducted an exploratory data analysis (EDA) and created interactive dashboards using Tableau. The EDA analysis involved examining the available data to gain insights, identify patterns, and understand the underlying characteristics of the portfolio review process. Through visualizations and statistical techniques, I have uncovered valuable information that will inform the development of the Portfolio Reviews Program.

To further enhance data visualization and reporting, I utilized Tableau to create interactive dashboards. These dashboards provide a user-friendly interface to explore and analyze the data, allowing stakeholders to visualize key metrics, trends, and performance indicators. By leveraging Tableau's capabilities, I have created informative and visually appealing visualizations that facilitate better decision-making and communication.

The EDA analysis and Tableau dashboards serve as essential tools in understanding the data landscape and informing the development of the Portfolio Reviews Program. They provide valuable insights and actionable information that will guide the decision-making process, ensuring that the program is designed to meet the specific needs and expectations of the Los Angeles Centre of Photography.

As part of my contributions to the project, I tackled the challenge of setting up an online portfolio review session, which involved matching 100 participants with 50 suitable reviewers in appropriate time slots. To ensure the accuracy and reliability of the data, I performed data cleansing using R Studio. This involved eliminating special characters, profiling the data, adjusting time frames, and removing outliers. By cleansing the data, I ensured its quality and prepared it for further analysis.

To streamline the process and enable regular updates or refreshing of the dataset, I also automated data retrieval and processing. Depending on the specific requirements, I employed methods such as APIs, web scraping, or pre-scheduled data imports to ensure a seamless and automated flow of information. This automation reduced manual effort and ensured that the data remained up-to-date and relevant.

Overall, my contributions involved implementing the data preparation workflow using R and automating data retrieval and processing. These efforts were crucial in ensuring the accuracy of the data and facilitating an effective and successful online portfolio review session.

Analysis:

The below visualization showed how the reviewers were ranked in relation to one another based on how well they performed during the portfolio review sessions. These visualizations aimed to show the effectiveness of the reviewers and show who the top performers were.
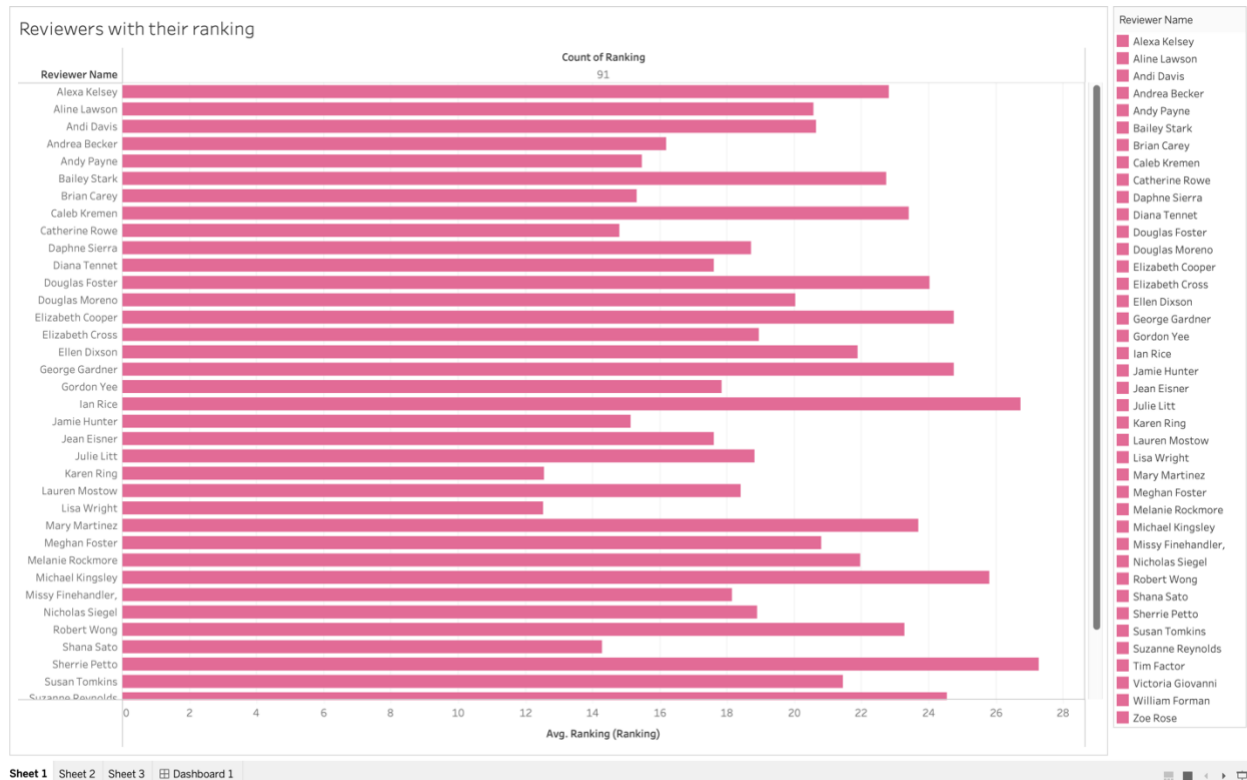

Figure 1: Reviewers with their ranking

The Los Angeles Centre of Photography received reviews from a variety of attendees who provided feedback highlighted in the below visualization. Pamela Dashy emerges as the most influential attendee with an impressive 13 reviews. Following closely behind are three actors, namely Mara Mosley and Lisa Dominguez, who both received eight reviews each. The remaining names on the list received five reviews, suggesting that they may have participated in a single event or session at the center. This data provides valuable insights for identifying highly involved attendees who could be considered for further engagement or participation opportunities. By recognizing those who have shown a strong interest in the center, the organization can focus on fostering relationships and providing tailored experiences to enhance their overall satisfaction and involvement.
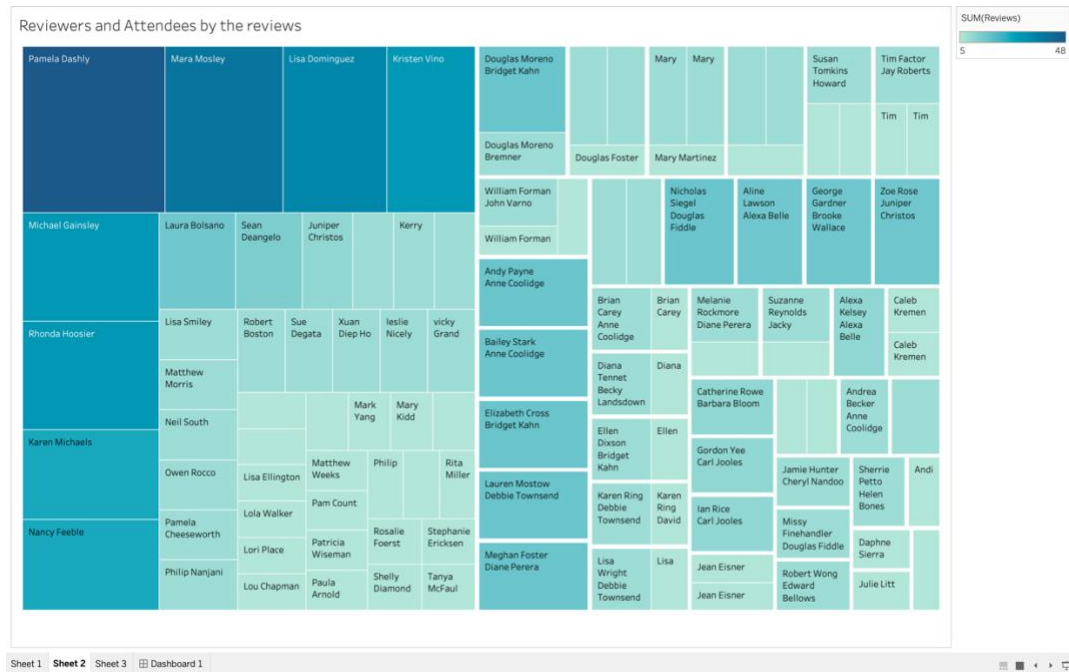
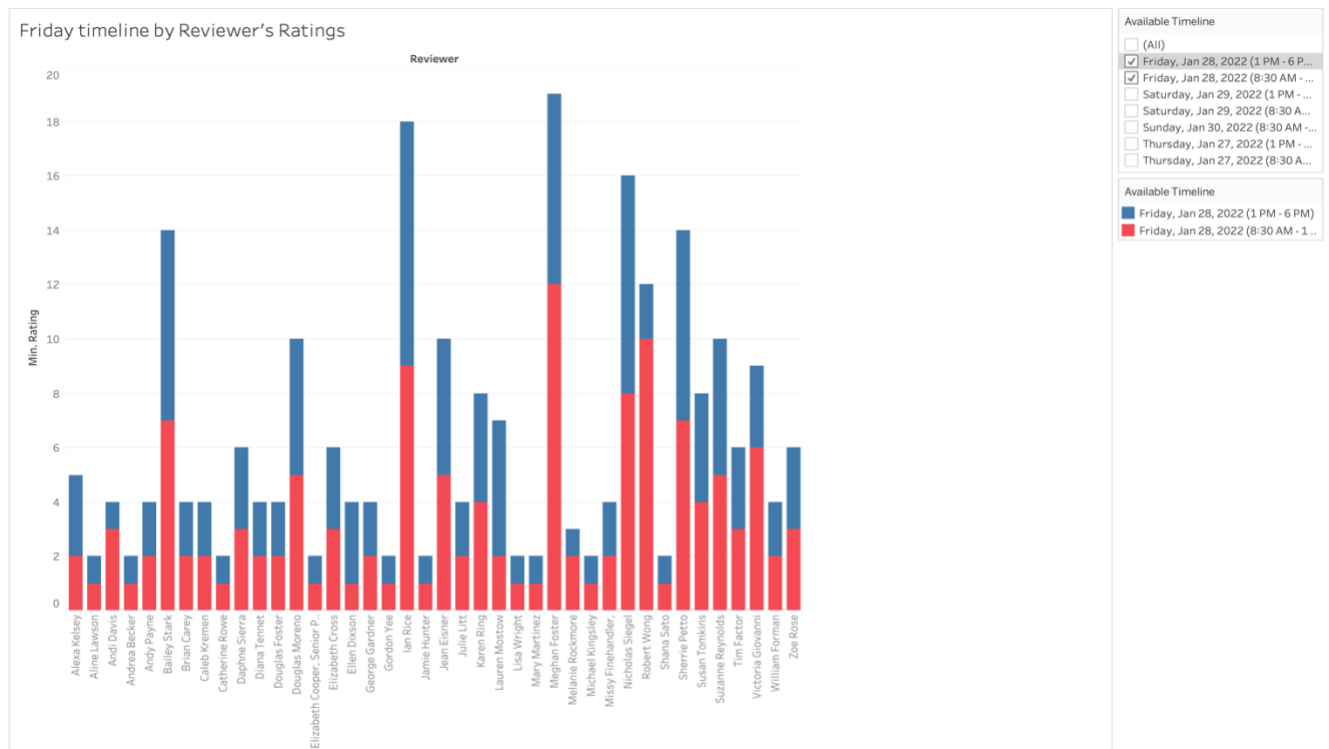*Figure 2: Reviewers and Attendees by the reviews*

Figure 3: Friday timeline by reviewer's ratings

The above visualization "Reviewer Ratings by Available Timeline" offers valuable insights into the performance of different reviewers based on their ratings within a given timeline. The

reviewer ratings provide a clear indication of the varying levels of expertise and competence among the reviewers. Notably, two reviewers, Douglas Foster, and Ian Rice, consistently receive high ratings, suggesting that they possess a remarkable level of reliability and proficiency in their work. This visualization serves as an initial reference point for evaluating the quality of reviewer ratings, offering a foundation for further analysis and decision-making in the assessment of reviewers based on the available timeline.

The tables below show the count of Attendees with their timeline selected.

	Timeline Selected	Count_Of_Attendees
1	Friday, Jan 28, 2022 (1 PM – 6 PM)	15
2	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	17
3	Saturday, Jan 29, 2022 (1 PM – 6 PM)	11
4	Saturday, Jan 29, 2022 (8:30 AM – 1 PM)	13
5	Sunday, Jan 30, 2022 (8:30 AM – 1 PM)	14
6	Thursday, Jan 27, 2022 (1 PM – 6 PM)	14
7	Thursday, Jan 27, 2022 (8:30 AM – 1 PM)	16
8	NA	90

Table 1: Timeline with Attendees count

	How many reviews	Number_of_Attendees
1	5	54
2	8	37

Table 2: Number of reviews per attendee

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	Reviewer	Timeline Selected	Name	Sum_of_Ratings
1	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Alexa Belle	35
2	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Anne Coolidge	33
3	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Bridget Kahn	12
4	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Brooke Wallace	40
5	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Christina Houseman	11
6	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Debbie Townsend	3
7	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Douglas Fiddle	29
8	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Juniper Christos	36
9	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Karen Michaels	26
10	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Kristen Vino	25
11	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Lisa Dominguez	40
12	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Michael Gainsley	12
13	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Nancy Feeble	28
14	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Pamela Dashly	27
15	Alexa Kelsey	Friday, Jan 28, 2022 (1 PM – 6 PM)	Rhonda Hoosier	10
16	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Alexa Belle	35
17	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Anne Coolidge	33
18	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Barbara Bloom	14
19	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Bridget Kahn	12
20	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Brooke Wallace	40
21	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Debbie Townsend	3
22	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Diane Perera	2
23	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Juniper Christos	36
24	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Karen Michaels	26
25	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Kristen Vino	25
26	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Laura Bolsano	23
27	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Lisa Dominguez	40
28	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Mara Mosley	40
29	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Michael Gainsley	12
30	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Nancy Feeble	28
31	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Pamela Dashly	27
32	Alexa Kelsey	Friday, Jan 28, 2022 (8:30 AM – 1 PM)	Rhonda Hoosier	10
33	Alexa Kelsey	Saturday, Jan 29, 2022 (1 PM – 6 PM)	Alexa Belle	35
34	Alexa Kelsey	Saturday, Jan 29, 2022 (1 PM – 6 PM)	Anne Coolidge	33
35	Alexa Kelsey	Saturday, Jan 29, 2022 (1 PM – 6 PM)	Bridget Kahn	12

Table 3: Gives the Reviewer timeline selected with the ranking
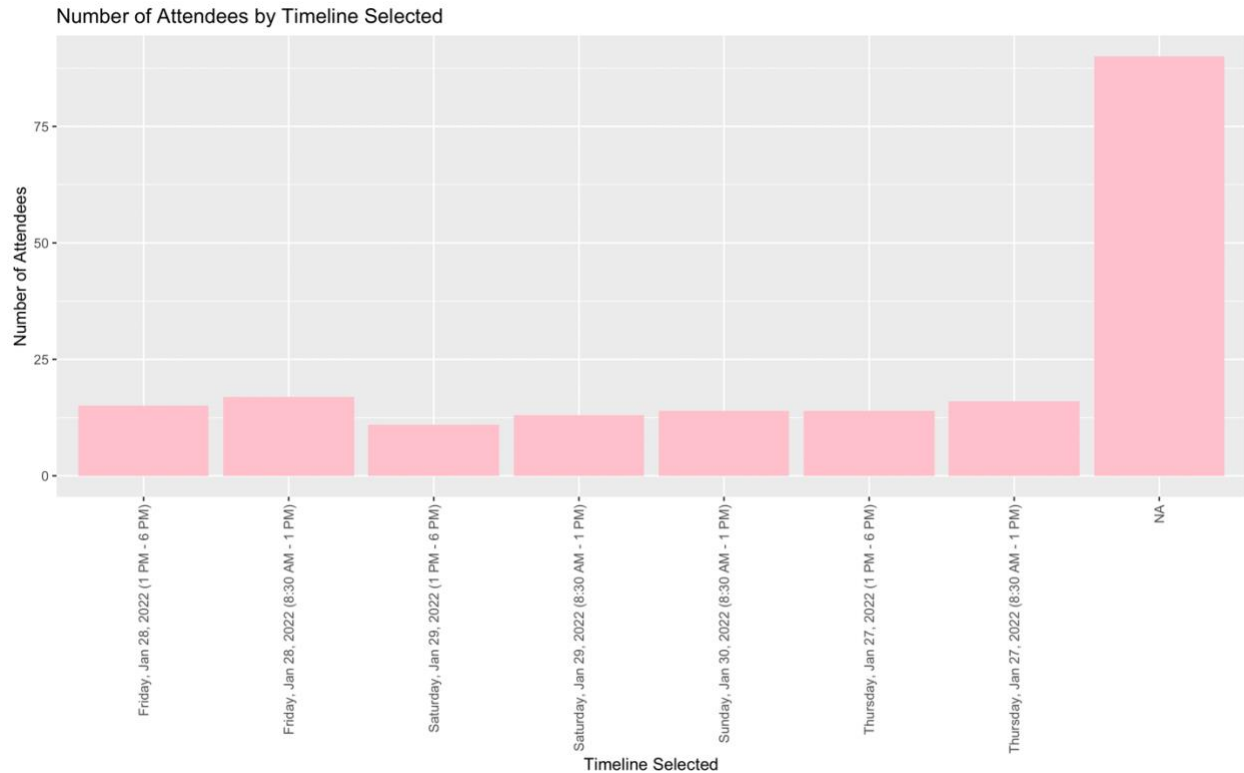
Figure 4: Number of Attendees by timeline selected

The above visualization shows the number of attendees by timeline chosen using R studio. Since Friday is the busiest day of the week and has the most timeline-selected slots, we can infer this from the plot.

Conclusion :

In conclusion, the program offers the chance to significantly improve the current procedure's effectiveness and efficiency. Our team created data dictionaries, data cleaning and validation rules, a checklist for data preparation and a scheduling process. The project is completed more easily thanks to the methodical plan we presented and the task distribution among group members. We overcame challenges like a lack of survey data and technical barriers by recognizing potential risks and implementing mitigation strategies. To determine the success of our project, we evaluated the accuracy of the matching procedure, attendees' satisfaction with their assigned reviewers, and the generation of optimal schedules taking preferences and availability into account. The addition of these elements would enhance the program.

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