

Providing a Solution Framework for Data Integrity Efforts with Aurora & Everest A Professional Readiness Experiential Program (PREP) Project Effort

----- Authors / Student Project Team Members -----

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Patrick T. Doyne is a student at George Mason University graduating with a bachelor's degree in Business Analytics and a minor in Computer Science. He will then be furthering his education pursuing a master's degree in Computer Science at his Almer Mater, George Mason University, at the start of 2025. Patrick has a passion for creating concrete solutions to puzzling problems.

Willian Melendez is a student at George Mason University graduating with a bachelor's degree in Management Information Systems. After graduation, he plans to further his education by pursuing an MBA. Willian is eager to expand his expertise in business strategy and technology as he begins a new role as a data analyst.

----- Industry Participant / Mentor -----

Nancy Collins | Board Chairperson & Principal
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Interested in being an Industry Participant and or PREP Sponsor? Please reach out to bngac@gmu.edu, Thanks!

---- Client Testimonial ----

“The GM team was quick to grasp the business situation being analyzed and their work product pointed out some significant areas we are looking at to improve overall productivity our work force. The solution they delivered may prove helpful on an ongoing basis in helping identify areas for improving case manager productivity.”

- Nancy Collins | Chief Executive Officer | Aurora Case Management & Everest Care Management

“We greatly appreciate the effort the GMU team dedicated to this project. The solutions and recommendations they presented demonstrated a strong understanding of the desired project outcomes. Their focus and grasp of our specific needs and challenges ensured that their analysis was both targeted and practical, delivering actionable insights aligned with our objectives. Through this collaborative effort, the team effectively addressed our immediate concern. They provided an application designed to streamline our business operations, specifically for reconciling phone call and text message data. We sincerely thank the team for their hard work and dedication to this project.”

- Amanda McComsey | Chief Operations Officer | Aurora Case Management & Everest Care Management

“The students listened to our questions and took the time to explain their work. They put together a good system to evaluate the data provided to them, included ways to account for different variables that affected the data, and created a format to present the information in a user-friendly way.”

- Hannah Rigel | Business Development Representative | Aurora Case Management

Introduction

Aurora and Everest (A&E) are woman owned businesses consisting of medical case management with 30 years of experience under their belt. Aurora provides services such as certified rehabilitation counseling (CRC), certified case managers (CCM), and certified disability management specialists (CDMS). On the Everest side they provide insurers, self-insured employers, employers, and third-party administrators and attorneys. Aurora and Everest together provide many services to meet all clients' needs. Naturally, this line of work requires a great deal of data management for contacts and billing. This led us to the point of our project: by leveraging the data available, are A&E potentially over/under billing their clients?

Business Challenge

A&E currently utilize a system dependent on manual time capture by their Case Managers and Nurses, likely leading to discrepancies in billing. A&E hypothesized that they were underbilling due to capturing a lower and incorrect number of billable hours, thus losing out on expected revenues. Furthermore, A&E did not have a standardized process to analyze their time entry data and to verify that there were no discrepancies.

Activities Done to Address the Business Challenge

Through our initial requirements gathering efforts, we created an AS-IS process to visualize the current A&E business processes related to time capture and client billing while highlighting the areas of concerns identified. Based on the challenges we verified; we then brainstormed and produced a new time entry process for the Case Managers and Nurses. A&E gave us information from Case Any Place, which is the database they use for their time entry inputs, as well as access to Verizon, a separate database, so that we can grab call and text data.

By leveraging these two data sources and various custom developed database queries using structured query language (SQL), we were able to analyze and determine whether the time entries matched up or if there is over and underbilling. The SQL queries gave A&E a more automated system where they are able to easily crosscheck and analyze their data. Additionally, we provided A&E with an Excel template containing the final reports for each company. Furthermore, we constructed a series of training videos on how to utilize the SQL Server Management Studio to import, maintain, update, and export the client and phone data. Similarly, we provided walkthrough videos as well as step by step instructions, for pulling data from Verizon and formatting the final reports A&E desires from the SQL export feature within Excel. Lastly, we created an updated TO-BE Process flowchart that provided a step-by-step walkthrough for how our new crosscheck mechanism integrates into their business workflow.

Results & The Positive Impact

The project resulted in a fast, mostly automated, system where A&E can use the SQL query we created, as well as the tutorial videos, to produce a meaningful Excel report based on their needs and wants. From a preliminary run over two months, based on the data provided, we found that there were in fact underbilling discrepancies. However, upon further analyses, we discovered some of the data provided via Tarbet, the company currently being outsourced by A&E for database management, was out of date and had missing contacts. Similarly, there were

employees using personal phones for billable calls instead of their assigned business phone. These issues were mitigated by Tarbet, but only for our time frame of data. This mitigation needs to occur over all current and future call data entries going forward.

These insights provided a positive confirmation of the original A&E hypothesis regarding billing and unveiled simple fixes to underlying problems. With our delivered solution, A&E now has an efficient way to crosscheck the billing of any billable time period, a zoomed in look on which employees are problematic, and insights into many other granular level details that can be used for future analysis. Ultimately, the positive impact of our work reaches beyond the results of our assigned task and could easily play a role in the solution to other business problems, both current and future, that pertain to the call data of employees.

Conclusion

To summarize, A&E faced a business challenge regarding the accuracy of their current billing system. We went through multiple phases of AS-IS and TO-BE analyses to meet A&E's goals. Ultimately, we provided a cross-checking mechanism and framework that creates valuable insights into solving the specific business problem of inaccurate and under billing of the customers – which impacts their revenue streams. Moreover, the positive impact of our work has the potential to bleed into other current and future business problems revolving around employee call data.

PREP Student Reflection

Throughout this process we learned a lot about the ins and outs of being a consultant, the lifecycle of implementing a system solution for a company and discovering ways to make business processes more efficient. Consistent communication and problem-solving skills were essential to ensure the success of the project's positive outcomes. Furthermore, we sharpened our technical skills in SQL and Excel while also managing weekly timelines and the expectations of a company.

All in all, we learned the importance of teamwork, a strong work ethic, being flexible, being communicative about expectations, not being afraid to ask questions, and always striving for better results. While this project presented its fair share of challenges in all facets, the PREP approach, our professor, and temporary colleagues at A&E all kept us on track and pushing for greatness. We are all truly thankful for the opportunity this course has presented us with, and hope the future students selected for this course incur the same growth we did. Thank you!