Assignment 1

1. Case Study: Faro Hospital
   1. The Faro Hospital is a large medical center in Portugal that serves the Algarve region. The hospital serves over 250,000 people in the region, and became a state-managed organization in 1999, which meant they now had to account for specific government mandated targets. As a result, the hospital sought to improve efficiency and decision making. They accomplished this in a data driven way by deploying a business intelligence (BI) solution based on Microsoft SQL Server data management software.[[1]](#footnote-1) Before this, each department had its own system for managing applications, medical records, and employee schedules. This made it very hard for information to be shared across departments, which was detrimental to patient care as multiple departments often need to coordinate treatment. If say, the cardiology department needed a report from the radiology department, it could take multiple days since the report had to be manually requested and delivered. All of this lack of integration also slowed decision making, which increased management costs for the hospital.
   2. In 2009, Faro Hospital developed a management solution based on SQL data management software. They are now able to consolidate patient records, appointments, staff schedules, and other important data into a centralized real time database. They also integrated with Microsoft Office SharePoint Server 2007, which allows employees to view and update the database without knowledge of SQL. Since the hospital transferred to data a centralized real-time database, the hospital is able to make informed decisions based off the data they’ve collected, and quickly transfer records between departments. They have reduced costs as well. According to one manager, “We can identify areas where we are failing to get a return on investment. We can then reallocate these resources to make sure everything is as cost-effective as possible.”[[2]](#footnote-2) Most importantly, patient care has improved. The hospital “can optimize the number of patient appointments in a day, because we can forecast them more accurately.”2 They are able to use the data they’ve collected to analyze trends in customers and predict their behavior, allowing them to optimize their operations as a result.
   3. The implementation of a SQL database to store various records has allowed the Faro Hospital to utilize accurate, real-time data when planning funding and resourcing strategies, which has helped reduce overhead costs and improve patient care. I believe it is critical for a hospital to have a robust data management and analysis system in the 21st century, and this case study shows how much the implementation of one can drastically benefit the hospital.

1. https://www.slideshare.net/lsakoda/case-studies-utilizing-real-time-data-analytics [↑](#footnote-ref-1)
2. https://image.slidesharecdn.com/casestudiesutilizingreal-timedataanalytics-130212152813-phpapp01/95/case-studies-utilizing-real-time-data-analytics-26-638.jpg?cb=1360935970 [↑](#footnote-ref-2)