Case Study Project – Case Study Documentation (15pts)

Using the Project you identified in your Project Charter proposal, please create a Data Flow Diagram, ERD, and Data Dictionary. Your Project should accomplish the following:

1. Download daily/weekly or monthly updates for all your data sources in csv format.
2. Identify and merge the new data into a MS SQL Database making sure there aren’t duplicates in the database.
3. Automate the database update process using the MSSQL Database scheduler by running an MS SSIS package.
4. Automate the building of a Regression or Classification prediction model on a daily/weekly or monthly schedule.
5. Provide the ability to view prediction results “on-the-fly” using MS PowerBI.
6. Provide Descriptive Statistics of the data in MS Power BI
7. Create a Dashboard in MS PowerBI showing both:
   1. Prediction Model Results e.g. AUC/RSME etc
   2. Specific metrics of interest to the user e.g. APPLE stock price change YoY

Assignment 2

1. Data Flow Diagram (5pts)

Please create a Data Flow Diagram for the intended system. Please include a Level 0 and Level 1 Diagram.

1. Entity Relationship Diagram (5pts)

Please create an ERD using draw.io and ensure that all relationships between entities are in 3NF and all columns are identified, as well as all PK and FKs.

Note: version, date, and creators need to be included on your ERD.

1. Data Dictionary (5pts)

Please create a Data Dictionary for the database, based on the provided example below taken from your Textbook (Table 3.6). Your Data Dictionary should include:

1. All Entities
2. Attributes, and description of contents
3. PK and FK Identification with relationships to other Entities identified
4. Data Types, Format, and Range
5. Identify default values, if required or not

Timeline

Description automatically generated

Please upload the following to Brightspace:

1. A pdf of your Level 0 and Level 1 DFDs
2. A png version of your ERD
3. A pdf of your Data Dictionary