ADS – Portfolio

The following document highlights my learning and understanding of data science using the courses that I have undergone.

Each course contains the github path of the project files, my learnings from the course and the data science objective that it is linked to.

# IST652

Path: <https://github.com/SeshuMiriyala/ADS-portfolio/tree/master/IST652>

Learning: Using this course I have learned the concepts of Python and how to use python to achieve the goals in a data science project. I have learned the building blocks of python like data types, data structure, control statements, functions. I also learned about how to access different kinds of data like structured data (e.g., databases), semi-structured (like json, xml, etc.), unstructured data (like twitter, social networking data) using python.

Project Outcome: Learned how to access data from different kinds of data source. Using python to analyze the data and using visual tool to find patterns and answers to the questions in the project.

Project: The project is to Analyze coffee consumption and production and answer the following questions

1. Which country consumes most of the coffee it produced?
2. Which country has best coffee production?
3. How are farmers paid for the coffee they grow in each country?
4. Which country exports most of the coffee?

Data Science objective learned from this course: Python (one of the most used languages in data science field). Loading, cleaning, analyzing and visualizing different kinds of data. And deriving actionable insights from the analysis.

# IST659

Path: <https://github.com/SeshuMiriyala/ADS-portfolio/tree/master/IST659>

Learning: This course helped me learn the database structure and granular concepts of Relational Database concepts. In this course I have learned the importance of designing the database and writing effective queries to retrieve the data.

Project Outcome: Learned how to design, develop and extended the databases. And use the access database to design UI.

Project: Designing and developing a database management for a retail business named Bob’s local store.

Data Science object learned from this course: Effective Data management and 3-Vs of data (Volume, Variety and Velocity)

# IST687

Path: <https://github.com/SeshuMiriyala/ADS-portfolio/tree/master/IST687>

Learning: I learned another most popular language used in Data Science namely R. I had chance to learn the building blocks of R and utilizing R to solve the Data Science problem. It also helped to learn how data is linked among different datasets, processed and managed at different project lifecycle.

Project Outcome: In the project we learned about how to collaborate within a team and achieve the goals collectively. We learned how to use R in loading, cleaning, analyzing and visualizing of data.

Project: An Analysis of the Cost and Salary Potential of Attending College

Data Science object learned from this course: R language. Collecting, organizing, cleaning, analyzing and visualizing data using R. And deriving actionable insights from the analysis.

# IST718

Path: <https://github.com/SeshuMiriyala/ADS-portfolio/tree/master/IST718>

Learning: In this course I learned the concept called OSEMiN which stands for Obtain, Scrub, Explore, Model and Interpret. I learned how to use python in different phases of Data Science project mainly modeling and interpreting the results of a model.

Project Outcome:

Project: Hop on the Bus Gus

Data Science concept learned from this course: OSEMiN framework. Collecting, organizing, analyzing, visualizing, modeling and interpreting of data. Learned about the predictive analysis using Time Series. And using data science models and interpretation to make better decisions.

# IST664

Path: <https://github.com/SeshuMiriyala/ADS-portfolio/tree/master/IST664>

Learning: This course helped me to learn the techniques used in analyzing text with the help of python.

Project Outcome: In this course I did a project on detecting the spam vs ham emails based on the text inside each email using natural language techniques.

Project: Spam-Ham Detection

Data Science concepts learned from this course: Using this course I learned the new division of data science called natural language processing. In the NLP, I have learned about how to obtain, process, analyze and interpret the textual data.