Data Science for Managerial Decisions (MB 511)

Instructor
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References/Literature

- Jojo Moolayil, "Smarter Decisions The Intersection of IoT and Data Science", PACKT, 2016.
- Cathy O'Neil and Rachel Schutt , "Doing Data Science", O'Reilly, 2015.
- David Dietrich, Barry Heller, Beibei Yang, "Data Science and Big data Analytics", EMC 2013
- Raj, Pethuru, "Handbook of Research on Cloud Infrastructures for Big Data Analytics", IGI Global
- Management Information System, W.S Jawadekar, Tata Mc Graw Hill Publication.
- Management Information System, David Kroenke, Tata Mc Graw Hill Publication.
- MIS Management Perspective, D.P. Goyal, Macmillan Business Books.

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Online Resources

Software Resources

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Program Overview

- Introduction to Data Science
- Information Technology An Overview
- Applications of Data Science in various fields
- MIS and Control Systems
- Data Collection and Data Pre-Processing
- Building Information Systems
- Support Systems for Management Decisions

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MIS and Control Systems

- Introduction to MIS and Control Systems
- Design and Implementation of MIS
- Control Systems in Action
- Challenges and Future Trends

MIS and Control Systems

Group Activity

Building MIS – life Cycle and Best Practices

Dashboard

Activity Volunteers
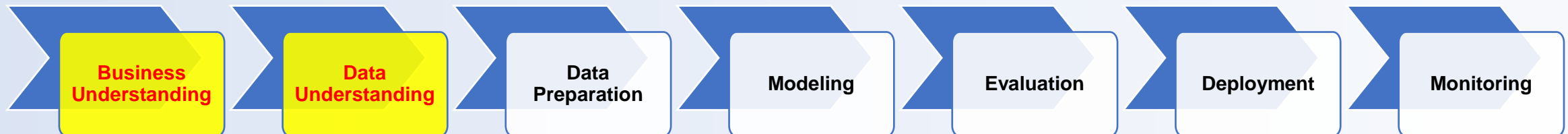
1. Dastgir

2. Nagendra

3. Guria

4. Shambhavi

5. Firoz

Building Data Science Solutions

Data is not just a piece of information, but a powerful tool that can transform businesses and drive innovation." – Unknown

| Business Understanding | Data Understanding | Data Preparation | Modeling | Evaluation | Deployment | Monitoring |

Building Data Science Solutions
Levels of Measurements

In statistics, measurement levels, also known as scales of measurement or levels of measurement, refer to the types or levels of data that can be collected or observed. These levels determine the types of statistical analyses that can be performed on the data. There are four commonly recognized measurement levels:

Nominal Level	Ordinal Level	Interval Level	Ratio Level
At this level, data are categorized or labeled without any order or ranking. Nominal data are qualitative and can only be classified into distinct categories. Examples include gender (male, female), eye color (blue, brown, green), or types of cars (sedan, SUV, truck). Nominal data can be summarized using frequencies and mode.	In this level, data are ranked or ordered, but the differences between the ranks are not necessarily meaningful or consistent. Ordinal data can be categorized and ranked but do not have consistent intervals between the ranks. Examples include ranking preferences (1st choice, 2nd choice, 3rd choice), education level (high school diploma, bachelor's degree, master's degree), or survey responses using Likert scales (strongly agree, agree, neutral, disagree, strongly disagree). Ordinal data can be summarized using median, mode, and percentiles.	At this level, data are measured on a scale where the intervals between consecutive points are equal and meaningful. However, there is no true zero point. Interval data can be ordered, and the difference between two values is meaningful and consistent, but there is no absolute zero. Examples include temperature measured in Celsius or Fahrenheit, where 0°C or 0°F does not indicate the complete absence of temperature. Interval data can be summarized using mean, median, mode, standard deviation, and percentiles.	This is the highest level of measurement, where data have all the properties of interval data, but with a true zero point. In ratio data, zero indicates the complete absence of the attribute being measured. Examples include height, weight, time, and money. Ratio data can be ordered, and the differences between values are meaningful and consistent, and there is a true zero point. Ratio data can be summarized using mean, median, mode, standard deviation, percentiles, and can also involve ratios and proportions.

Business Understanding → Data Understanding → Data Preparation → Modeling → Evaluation → Deployment → Monitoring

Quiz and Assignment

As Moodle is in picture now. I will share the assignments and quizzes with Course Administration

team. They will share the details with the group.

Have a question?
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