



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

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DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

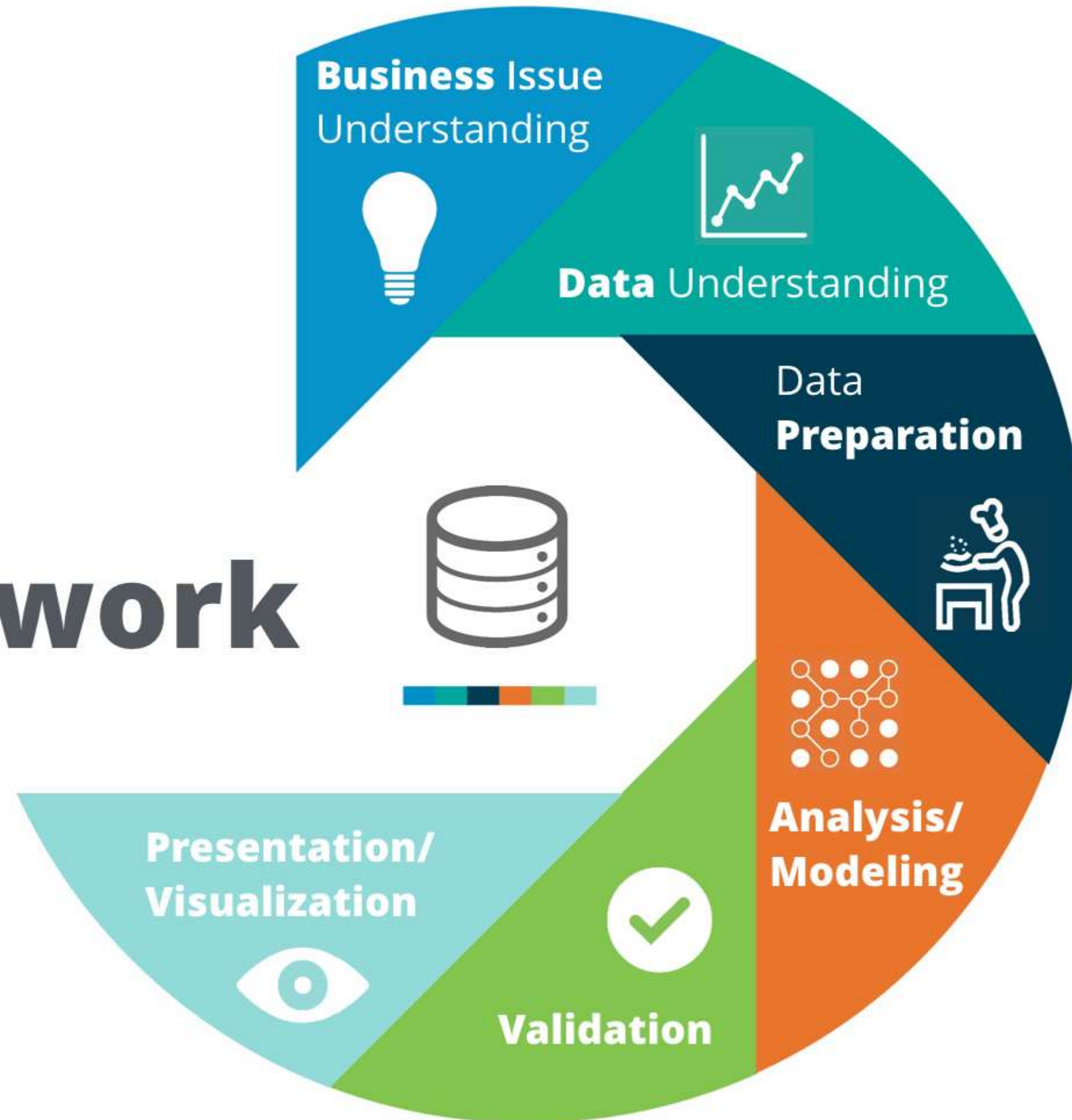
COURSE NAME :19CS407 DATA ANALYTICS WITH R
II YEAR /IV SEMESTER

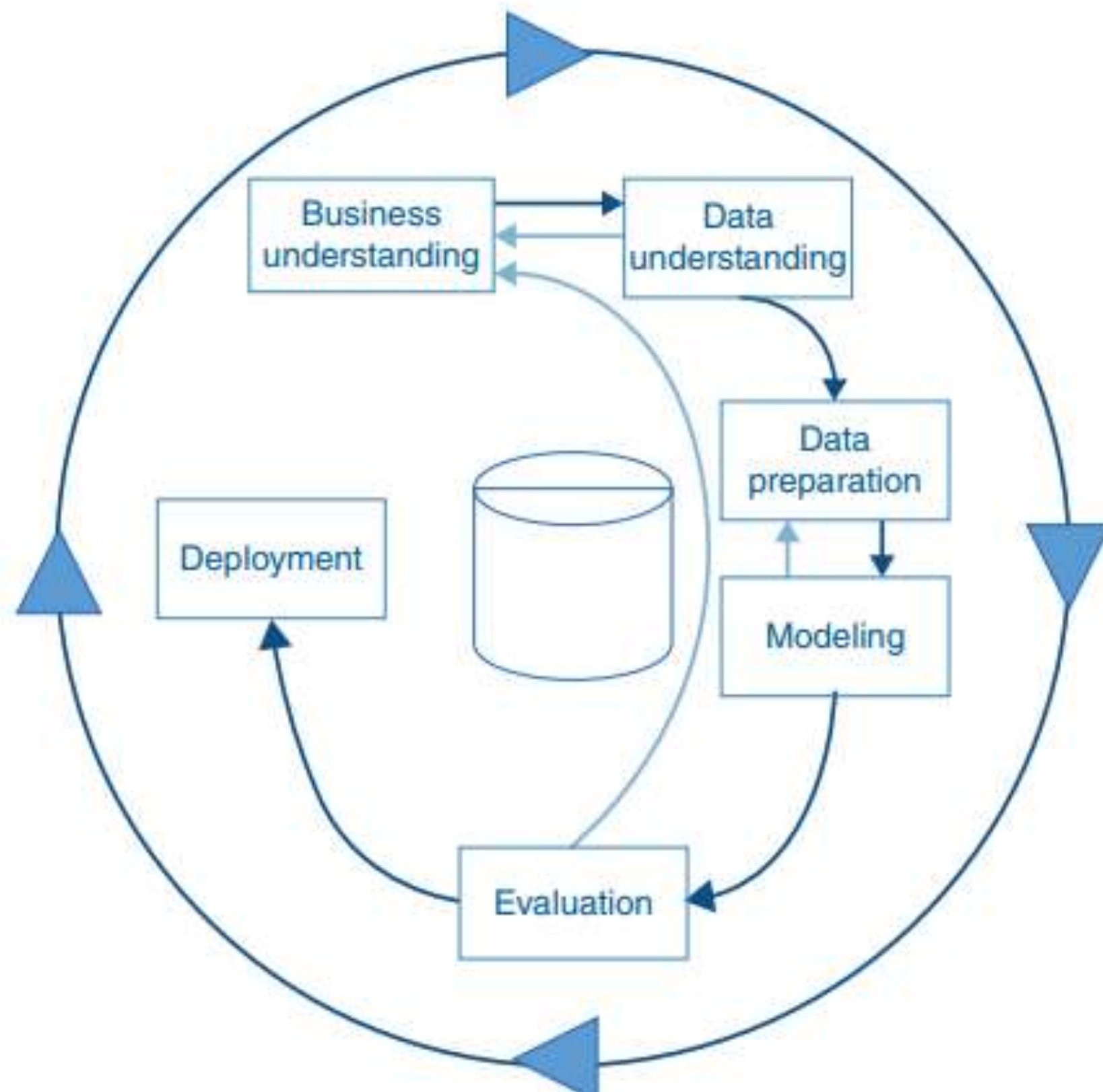
Unit 1- Introduction

Topic : CRISP-DM Methodology



Framework







The CRISP-DM Methodology



- ✓ Cross-Industry Standard Process for Data Mining (CRISP-DM) is a **six-step method**, which, like the KDD process, uses a non-rigid sequential framework.
- ✓ Despite the six phases, CRISP-DM is seen as a perpetual process, used throughout the life of a company in successive iterations



Business understanding



- ✓ This involves understanding the business domain, being able to define the problem from the business domain perspective, and finally being able to translate such business problems into a data analytics problem



Data Understanding



- ✓ This involves collection of the necessary data and their initial visualization/summarization in order to obtain the first insights, particularly but not exclusively, about data quality problems such as missing data or outliers.



Data preparation

- ✓ This involves preparing the data set for the modeling tool, and includes data transformation, feature construction, outlier removal, missing data fulfillment and incomplete instances removal.



Modeling



- ✓ Typically there are several methods that can be used to solve the same problem in analytics, often with specific data requirements.
- ✓ This implies that there may be a need for additional data preparation tasks that are method specific. In such case it is necessary to go back to the previous step.
- ✓ The modeling phase also includes tuning the hyper-parameters for each of the chosen method(s)



Evaluation



- ✓ Solving the problem from the data analytics point of view is not the end of the process.
- ✓ It is now necessary to understand how its use is meaningful from the business perspective; in other words, that the obtained solution answers to the business requirements



Deployment



- ✓ The integration of the data analytics solution in the business process is the main purpose of this phase.
- ✓ Typically, it implies the integration of the obtained solution into a decision-support tool, website maintenance process, reporting process or elsewhere.



Assessment 1



To create your own CRISP DM Approach





References



1. João Moreira, Andre Carvalho, Tomás Horvath – “A General Introduction to Data Analytics” – Wiley -2018

Thank You