ANURAG ENGINEERING COLLEGE

(An Autonomous Institution)

III Year B.Tech. CSE - II Sem	L	T / P / D	C
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(CS605PC) DATA MINING AND OBJECT ORIENTED ANALYSIS AND DESIGN LAB

Part - A:

Prerequisites:

1. A course on “Database Management Systems”

Co-Requisites:

1. A course on “Dataware housing and Data Mining”

Course Objectives:

- To implement data warehouses for different organizations.
- To analyze the process of preprocessing the data.
- To test the real world data sets using supervised learning and unsupervised learning.
- To determine the performance and accuracy of models.
- To handle small data mining project for a given practical domain.

Week-1: a) Design multi- dimensional data models namely star, snowflake and Fact constellation schemas for one enterprise (Like banking).

b) Apply below preprocessing techniques on given dataset.

Handling Missing Values , Remove records having a NULL value, Replace Numeric attributes by mean value, Remove Nominal attributes having null value, Sampling, Discretization (Binning), Normalization

c) Market basket analysis using Association Rule Mining **Week-2:** a) Movie reviews classification using WEKA Tool

b) Weather classification using WEKA Tool

c) Multiple regression analysis on sales data set

Week-3: a) Demonstrate K- means based Clustering in WEKA

b) Demonstrate hierarchical based Clustering in WEKA **Week-4:** a) Apply classification, cluster technique on time series data sets

b) Apply classification, cluster technique on time spatial data sets **Week-5:** a) Demonstrate Outlier detection technique

b) Credit Risk Assessment

Week-6: Credit Risk Assessment

Week-7: Credit Risk Assessment

DESCRIPTION:

The business of banks is making loans. Assessing the credit worthiness of an applicant is of crucial importance. You have to develop a system to help a loan officer decide whether the credit of a customer is good, or bad. A bank's business rules regarding loans must consider two

opposing factors. On the one hand, a bank wants to make as many loans as possible. Interest on these loans is the banks profit source. On the other hand, a bank cannot afford to make too many bad loans. Too many bad loans could lead to the collapse of the bank. The bank's loan policy must involve a compromise: not too strict, and not too lenient

Course Outcomes:

1. The data mining process and important issues around data cleaning, pre- processing and integration**.**
2. The principle algorithms and techniques used in data mining, such as clustering, association mining, classification and prediction

CO-PO Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO 1												
CO 2		✓		✓	✓					✓		✓

Part - B:

Prerequisites:

1. Software Engineering

Co-Requisites:

1. A course on “OBJECT ORIENTED ANALYSIS AND DESIGN”

Course Objectives:

- To identify the software engineering methodologies involved in the phases for project development.
- To gain knowledge about open source tools used for implementing software engineering methods.
- To exercise developing product-startups implementing software engineering methods.
- Open source Tools: Star UML / UML Graph / Topcased

Week-1: Design Structural Models for Course management system (CMS).

Week-2: Design Structural Models for Easy Leave Policy.

Week-3: Design Structural Models for Electronic Cash Counter.

Week-4: Design Behavioral Models for Course management system (CMS).

Week-5: Design Behavioral Models for Easy Leave Policy.

Week-6: Design Behavioral Models for Electronic Cash Counter.

Week-7: Case Study for Structural and Behavioral Models for Online Reservation System**.**

Course Outcomes:

1. Classify the generic software development skill through various stages of software life cycle.
2. Identify the quality of System Analysis through software development with various real times Environment.
3. Implement test cases for Problem Design and Software Testing.

4. Implement software development models through rational method.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO 1	✓	✓	✓				✓					
CO 2		✓			✓		✓					
CO 3	✓	✓	✓				✓					
CO 4		✓	✓		✓		✓					