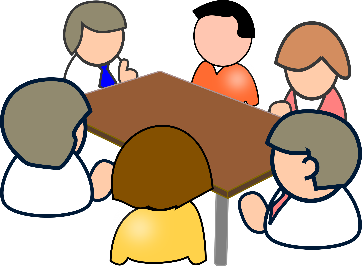
National University of Computer and Emerging Sciences Chiniot-Faisalabad Campus



**META-BASE**

Software Quality Engineering

### Semester Project

### Phase 1ST

### BS (SE) 5A

**ECP (Equivalence Class Partitioning):**

ECP is a software testing technique that divides the input data of a software application into partitions of equivalent data.

The idea is to test representative values from each partition, as they are expected to exhibit similar behavior.

For a database in the context of a Metabase website, you might consider partitioning data based on different types of queries, user roles, and data types.

Example Equivalence Classes:

Query types: SELECT, INSERT, UPDATE, DELETE

User roles: Admin, Editor, Viewer

Data types: Numeric, Text, Date

**BVA (Boundary Value Analysis):**

BVA is another software testing technique that focuses on testing values at the boundaries between partitions.

The idea is to test values that are on the "edge" of equivalence classes, as these values are more likely to cause errors.

This is particularly important for database testing as databases often have specific constraints on the input values.

Example Boundary Values:

If a text field allows 10-50 characters, test with inputs of 10, 11, 49, 50, 51 characters.

If a numeric field accepts values from 1 to 100, test with values like 1, 2, 99, 100, 101.

**Risk Analysis:**

In the context of a database for a Metabase website, risks could include data breaches, performance issues, and data integrity problems.

Identify potential risks associated with the database, such as unauthorized access, data corruption, or inadequate system performance.

Example Risks:

Unauthorized access to sensitive data due to weak authentication.

Data integrity issues arising from incorrect data updates or deletions.

Performance degradation under high query loads.

Database of Metabase Website:

Specify the type of database (e.g., MySQL, PostgreSQL) used by the Metabase website.

Consider the interactions with Metabase, such as data extraction, visualization, and user permissions.

Example Database Testing Scenarios:

Test the performance of database queries under various loads.

Validate that user permissions are properly enforced for different types of queries.

Check for data consistency between the Metabase interface and the underlying database.