Challenge 8 – Sprint 1 Executive Presentation

Introduction to Equivalence Classes

Equivalence Class Partitioning (ECP) is a black-box testing technique used to reduce the number of test cases while maintaining effective coverage. Input data is divided into partitions (equivalence classes) where each partition represents a set of valid or invalid values. One representative value from each class is sufficient to test the system behavior for that group.

Defined Equivalence Classes

Field	Equivalence Class	Description	Valid Example	Invalid Example
Bank Code	Valid Length	Exactly 3 numeric digits	123	12
Bank Code	Invalid Format	Non-numeric or wrong length	12A	12345
Branch Code	Valid Length	Exactly 4 numeric digits	1023	1A33
Branch Code	Invalid Length	Less or more than 4 digits	99	123456
Account Number	Valid Range	10-digit numeric code	9876543210	12345
Account Number	Invalid Format	Contains letters or symbols	A234567890	12345-7890
Personal Key	Valid Length	6-digit security key	445566	123
Personal Key	Invalid Characters	Must be numeric	55A920	91-120
Order Value	Valid Option	1 = Checkbook, 2 = Statement	1	3
Order Value	Invalid Type	Only numeric values allowed	A	#

Why These Classes Were Selected

These equivalence classes were selected to ensure proper validation of user input in a banking context, where incorrect data formats may lead to security risks, failed transactions, or erroneous account operations. The chosen partitions cover valid ranges, boundary sizes, and invalid categories such as wrong length, wrong format, and unsupported values. This structure enables efficient test coverage while reducing the number of necessary test cases.