

**SUBJECT: SOFTWARE TESTING AND
QUALITY ASSURANCE**

TOPIC : EQUIVALENCE

PARTITIONING TESTING

NAME OF TEACHER: SIMNA V J

ACADEMIC YEAR: 2020-2021



EQUIVALENCE PARTITIONING TESTING

- ⦿ Equivalence partitioning is a technique in which the input data are divided into distinct partitions, where the behavior or outcome of product within each member of the partition is same
- ⦿ Then one sample from each partition is picked up for testing



- ⦿ The set of input values that generate one single expected output is called a **partition**
- ⦿ when behavior of the software is the same for a set of values, then the set is termed as **equivalence class or partition**



EXAMPLE OF EQUIVALENCE PARTITIONING

- Assume that there is a function of a software application that accepts a particular number of digits, not greater and less than that particular number.
- For example, an OTP number which contains only six digits, less or more than six digits will not be accepted, and the application will redirect the user to the error page.

INVALID	INVALID	VALID
1 Test case	2 Test case	3 Test case
DIGITS ≥ 7	DIGITS ≤ 5	DIGITS = 6
93847262	9845	456234



STEPS TO PREPARE EQUIVALENCE PARTITIONING

- ◉ Choose criteria for doing the equivalence partitioning(range,list of values ,..etc)
- ◉ Identify the valid equivalence classes based on the above criteria
- ◉ Select a sample data from that partition

- ◉ Write the expected result based on requirements given
- ◉ Identify the special values, if any ,and include them in the table
- ◉ Check to have expected results for all the cases prepared



Advantages	disadvantages
It is process-oriented	All necessary inputs may not cover.
We can achieve the Minimum test coverage	This technique will not consider the condition for boundary value analysis.
It helps to decrease the general test execution time and also reduce the set of test data.	The test engineer might assume that the output for all data set is right, which leads to the problem during the testing process.

