

# TDA 594/DIT 593 - System-Level Testing Activity

You have developed a microservice that safely inserts, finds, and deletes elements from a Set structure (i.e., a list where no duplicates can exist).

The interface for this microservice offers the following independently testable functions:

- `void insert(Set set, Object obj)`
- `Boolean find(Set set, Object obj)`
- `void delete(Set set, Object obj)`

1. For each function, identify the input **choices** you can make when testing.
2. For each choice, identify a set of **representative values**.
3. For each function, create four **test specifications** from those values. For each, state the expected program output.

Partial Example:

**Function:** `insert(Set set, Object obj)`

**Choices:** Number of Items already in the set, Object Status

**Example representative values:** Set with One Item, Object Already in Set

**One test specification might be:**

**Input:** Set with One Item/Object Already in Set      **Expected output:** Object not Added

That is, we choose representative value “Set with One Item” for choice “Number of Items” and value “Object Already in Set” for “Object Status”. The expected result for applying those representative values would be that the object is not added to the set.