Functional testing of the Requirement Specification:

Q1. Consider a program for determining the previous date. Its input is triple of day, month and year with the
following ranges 1 <= month <= 12, 1 <= day <= 31, 1900 <= year <= 2015.The possible output dates
would be the previous date or invalid date. Design the equivalence class test cases?

Equivalence Class	**Month**	**Day**	**Year**	**Expected Output**
Day<1	any	<1	any	Invalid
Day>31	any	32	any	Invalid
Month<1	<1	any	any	Invalid
Month > 12	>12	any	any	Invalid
Year < 1900	any	any	1899 or less	Invalid
Year>2015	any	any	2016 or more	Invalid
Day exceeding number of days in a particular month	2	30	2015	Invalid
Leap year	2	29	2012	28-02-2012
None Leap Year	2	29	2013	Invalid
All inputs within constraints	1	14	2015	13-01-2015

Boundary Value:

Equivalence Class	**Month**	**Day**	**Year**	**Expected Output**
Day=1	1<x<=12	1	1900<x<=2015	Previous date
Day=31	1<x<=12	31	1900<x<=2	Previous

			015	date
Month=1	1	1<x<=31	1900<x<=2015	Previous Date
Month = 12	12	1<x<=31	1900<x<=2015	Previous Date
Year = 1900	1<x<=12	1<x<=31	1900	Previous Date
Year = 2015	1<x<=12	1<x<=31	2015	Previous Date

Q2. You are testing an e-commerce system that sells products like caps and jackets. The problem is to create functional tests using boundary-value analysis and equivalence class partitioning techniques for the webpage that accepts the orders. A screen prototype for the order-entry web page is shown below.
The system accepts a five-digit numeric item ID number from 00000 to 99999. The system accepts a quantity to be ordered, from 1 to 99. If the user enters a previously ordered item ID and a 0 quantity to be ordered, that item is removed from the shopping cart. Based on these inputs, the system retrieves the item price, calculates the item total (quantity times item price), and adds the item total to the cart total. Due to limits on credit card orders that can be processed, the maximum cart total is $999.99

Equivalence Classes:

- 00000 <= id <= 99999, 0 <= qty <=99, 0 <= cart total <= 999.99
- id < 00000, qty any
- id > 99999, qty any
- qty > 99, id any
- qty = 0, id any
- cart total > 999.99, id any, qty any
- cart total < 0, id any, qty any

Equivalent Class	Test Case	Expected output
1	id=34, qty = 40	Cart total
2	id=-1	Invalid
3	id=56375280	Invalid
4	qty=105	Invalid
5	qty<0	Invalid
6	id=34, qty=0	Item should be removed from cart
7	Cart total=1000	Invalid