Software Testing – Practice [1] Black Box Testing Techniques

Class: SE113.O21.CNCL.1

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We know that:

- The type of conference room is determined by the number of attendees:
 - The number of attendees ranges from 1 to 100:
 - [1-30] attendees \rightarrow Small room
 - (30-50] attendees \rightarrow Medium room
 - (50-100] attendees \rightarrow Large room
- The type of booking duration is determined by the hours:
 - The booking duration ranges from 1 to 8 hours:
 - [1-4] hours \rightarrow Half a day
 - (4-8] hours \rightarrow Whole day

Where:

- Input:
 - Number of attendees (Integer)
 - Hours (Integer)
- Output:
 - o Conference room type
 - o Booking duration type

Equivalence Partitioning:

• Set valid and invalid equivalence classes:

Input condition	Valid equivalence classes	Invalid equivalence classes
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	1-30	0 or less		
Number of attendees	31-50	101 or more		
	51-100	abc		
	1-4	0 or less		
Hours	5-8	9 or more		
		abc		

• Create combinations of valid equivalence classes:

		1-30	X			X		
Number of attendees	valid	31-50		X			X	
		51-100			X			X
11	valid	1-4	X	X	X			
Hours		5-8				X	X	Х

• Create combinations of only one invalid equivalence class:

		1-30	X			X			X					
	valid	31-50		X			X							
Number		51-100			X			X						
of attendees	invalid	0 or less								X	X			
		101 or more										X	X	
		abc												X
Hours	1: 1	1-4								X		X		X
	valid	5-8									X		X	
	invalid	0 or	X	X	X									

	less								
	9 or more		X	X	X				
abc					X				

Boundary Value Analysis:

• Test at the change of input and output conditions, and at the edges of valid and invalid equivalence classes, or outside of them

	Change	of conditions	Equivalence class edges and outside				
Number of attendees	Hours	Conference room type	Booking duration type	Number of attendees	Hours	Case	
1	1	Small room	Half a day	1	1	Valid min value	
30	4	Small room	Half a day	100	8	Valid max value	
31	5	Medium room	Whole day	0	1	Invalid	
50	8	Medium room	Whole day	101	1	Invalid	
51	8	Large room	Whole day	abc	1	Invalid	
100	8	Large room	Whole day	1	0	Invalid	
				1	9	Invalid	
				1	abc	Invalid	