Good Decision Table Challenge Jan 2016

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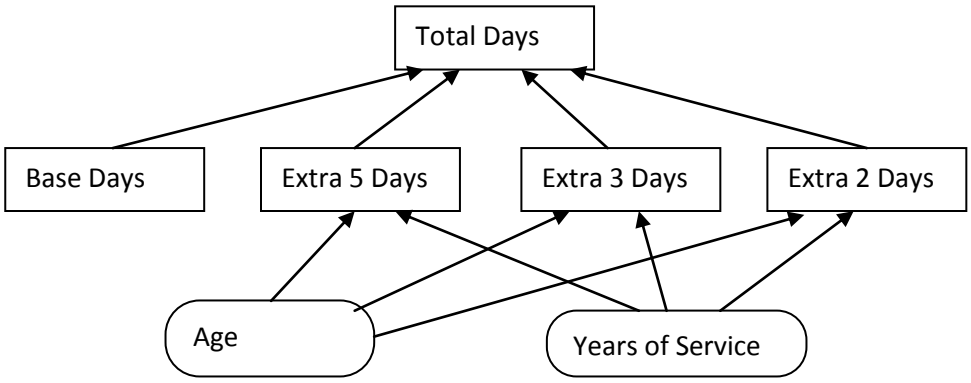
The problem statement suggests that we need a decision model, not necessarily 1 decision table. For example, the following DMN DRD could be used.



Logic for each decision follows:

Total Days
Base Days + (if Extra 5 Days then 5 else 0) + (if Extra 3 Days then 3 else 0) + (if Extra 2 Days and not(Extra 5 Days) then 2 else 0)

Base Days
22

Extra 5 Days			
A	Age	Years of Service	
			false, true
1	<18, >=60	-	true
2	-	>= 30	true

Extra 3 Days			
A	Age	Years of Service	
			false, true
1	>=60	-	true
2	-	>= 30	true

Extra 2 Days			
A	Age	Years of Service	
			false, true
1	>=45	-	true
2	-	[15..30)	true

Whether you build a complete decision model or a single decision table, it is always good to have a clear statement of the problem. This problem statement, just like those in the wild, is logically imprecise and ambiguous. Just like in the real world, modeling and clarification of the problem proceed hand in hand. Here are a few issues with the problem statement:

1. The word "only" should be changed to "all". E.g., "only dogs bark" does not mean "all dogs bark", but rather "if it barks, then it's a dog".
2. Disjunction is specified using 3 different phrases: "or", "and also", and "are also".
3. It is unclear whether 5 extra days can be awarded twice (e.g. to a 60 year old with 30 years of service).