Software Testing

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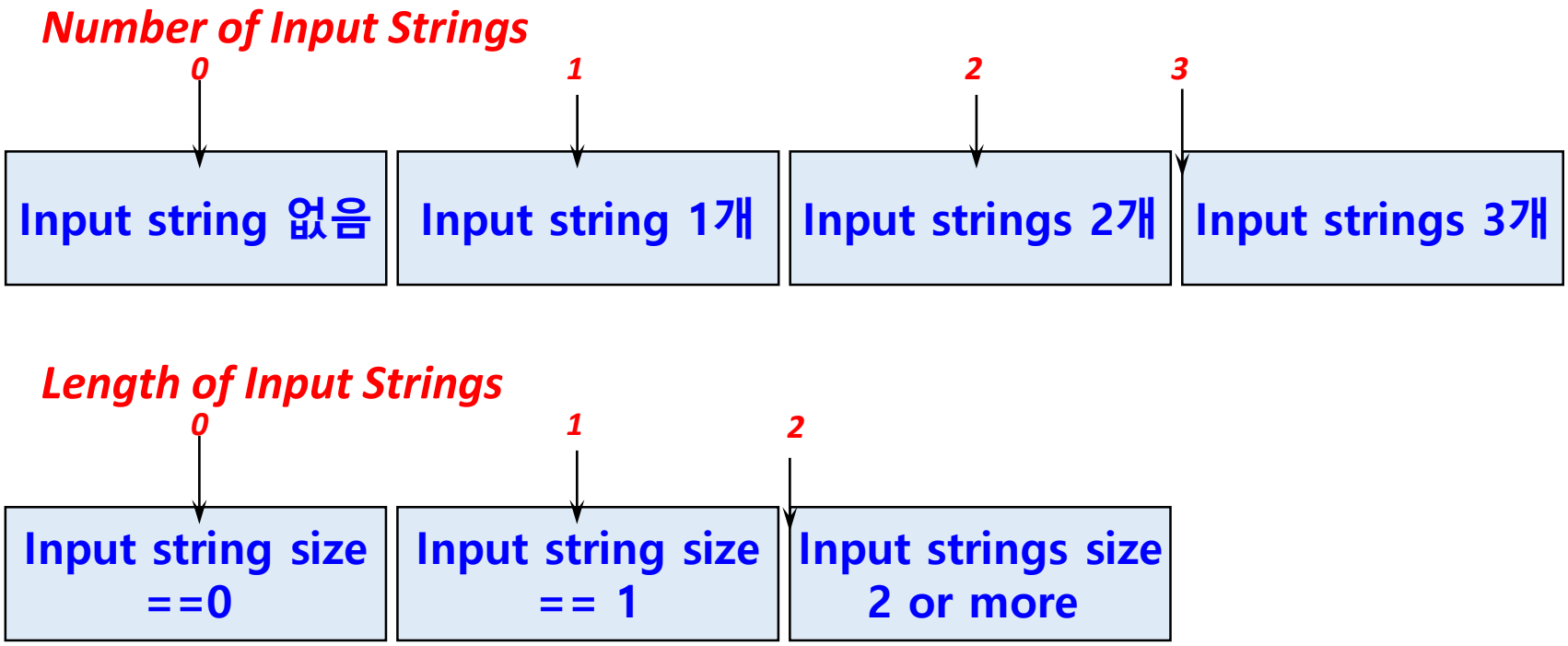
Assignment Review#6

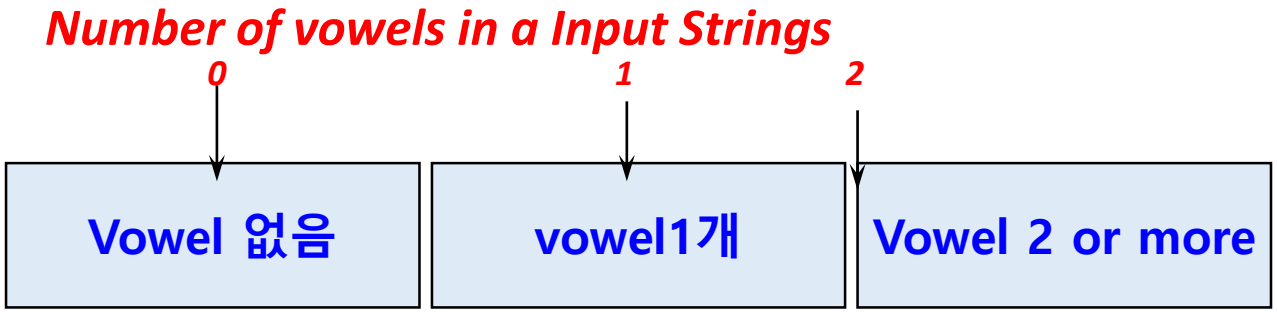
Assignment #6

- Input : 2 non-empty strings
- Goal : Determines which string has a lower number of vowel characters; a, e, i, o, and u
- 1. Defining Criteria

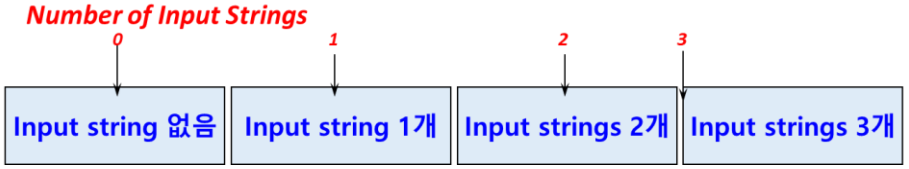


Assignment #6

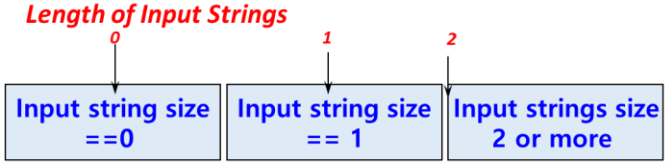
- **1. Defining Criteria**



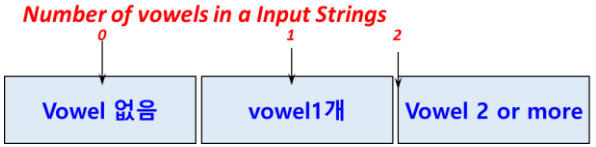
- 2. Apply Partitioning
  - Define partitions for each partitioning criterion.
  - Partitions for Criteria #1. Number of Input Strings
    - Number of Input Strings = 0
    - Number of Input Strings = 1
    - Number of Input Strings = 2
    - Number of Input Strings >= 3



  - Partitions for Criteria #2. Length of a String
    - Length of a String = 0, i.e. Null String
    - Length of a String = 1
    - Length of a String >= 2

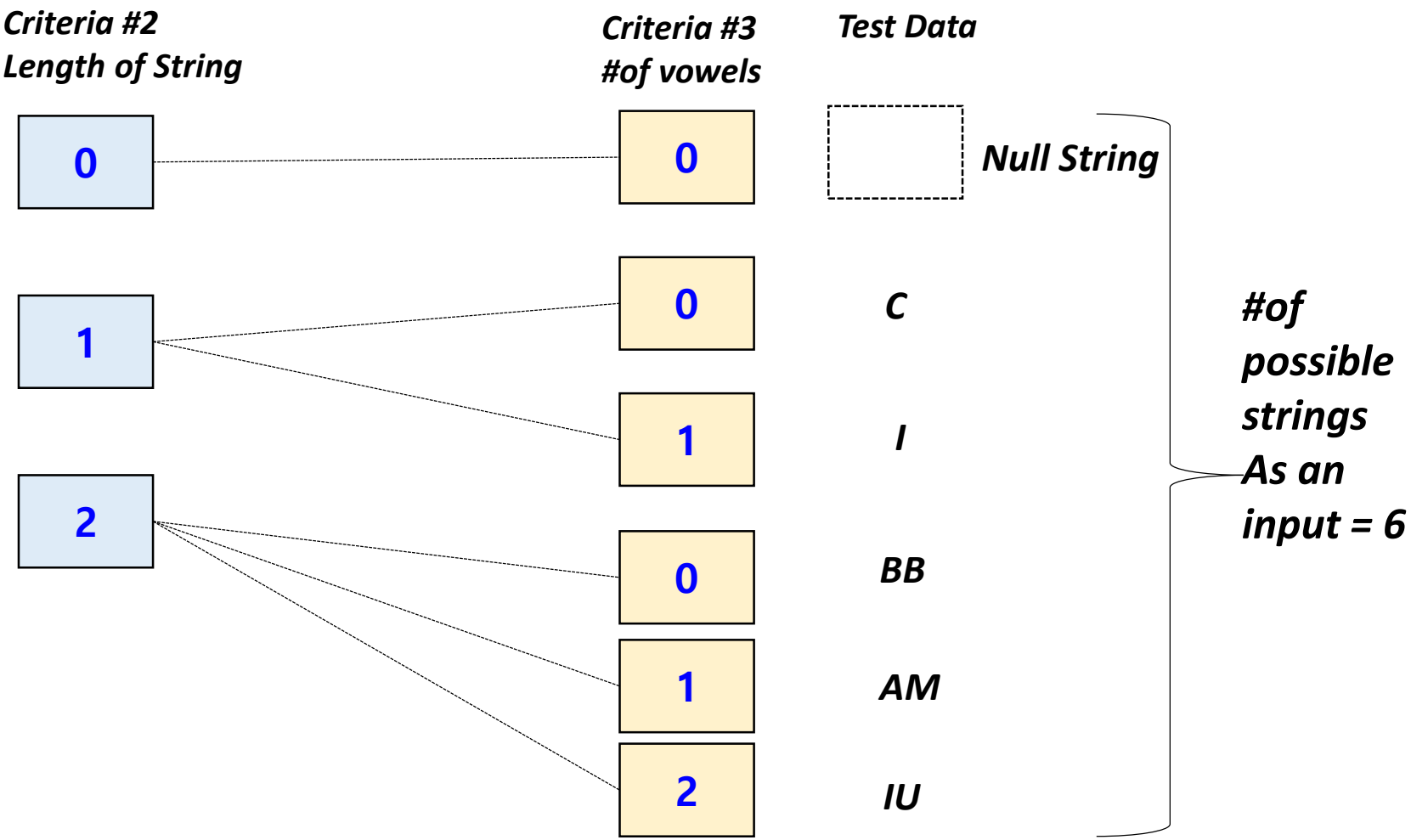


  - Criteria #3. Number of Vowels in a String
    - Number of Vowels in a String = 0
    - Number of Vowels in a String = 1
    - Number of Vowels in a String >= 2



- 3. Driving Test Cases

Criteria Dependency between #2 & #3



Assignment #6

- **3. Driving Test Cases**

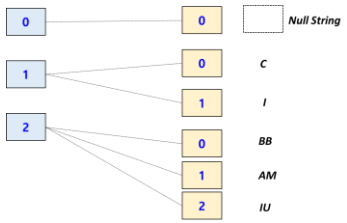
Criteria Dependency between #1 & #2 & #3

Criteria #1
# of String

0 — ***1 Test Case***

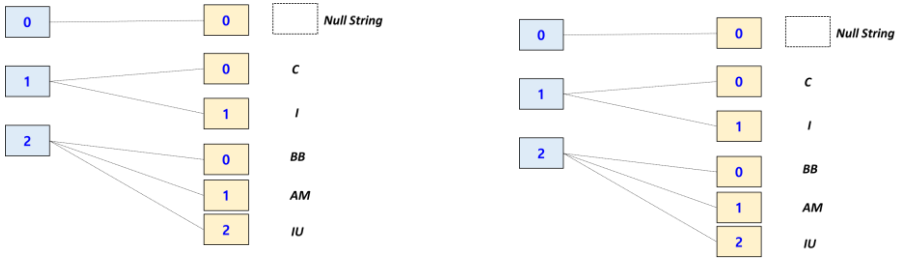
1 — ***6 Test Case***

S_1



2 — ***6^2 Test Case***

S_1 S_2



3

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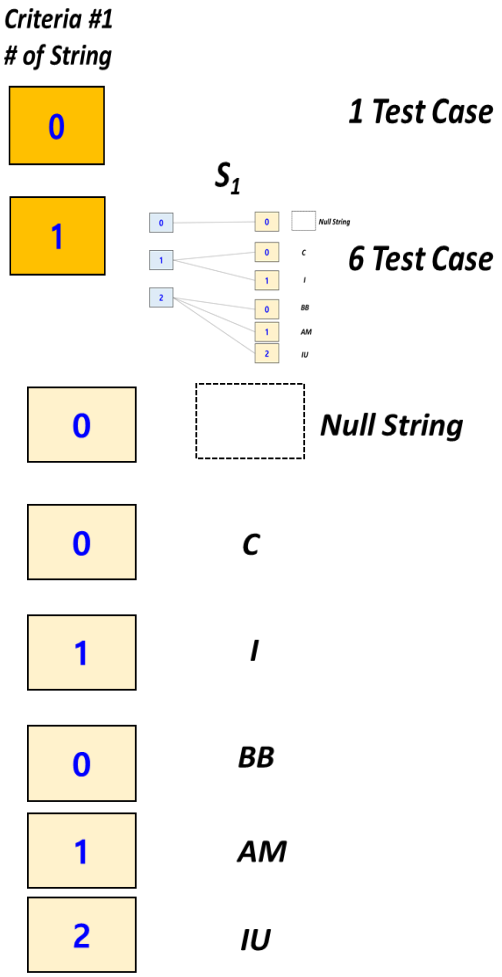
- **3. Driving Test Cases**

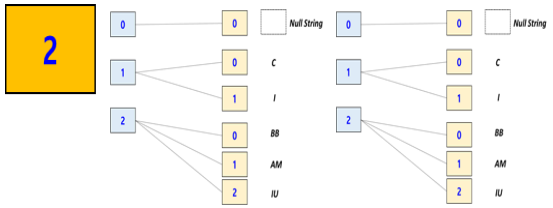
Criteria Dependency between #1 & #2 & #3



Test Cases	Input Strings
#1	**[0 number of string]**
#2	[1 number of string **– 0 length** – 0 number of vowels]
	Null string
#3	[1 number of string – **1 length** – 0 number of vowels]
	C
#4	[1 number of string – **1 length** – **1 number of vowels**]
	I
#5	[1 number of string **– 2 length** – **0 number of vowels**]
	BB
#6	[1 number of string – **2 length** – **1 number of vowels**]
	Am
#7	[1 number of string – **2 length – 2 number of vowels**]
	IU

- **3. Driving Test Cases**

Criteria Dependency between #1 & #2 & #3

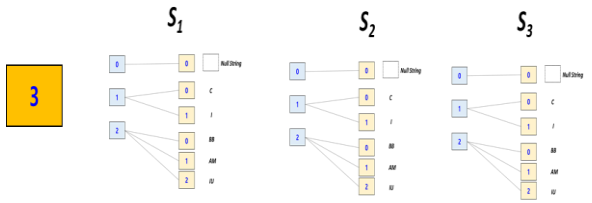


0	*Null String*
0	*C*
1	*I*
0	*BB*
1	*AM*
2	*IU*

Test Cases	Input Strings	
#8	[2 number of string]	
	[**0 length** – 0 number of vowels]	[**0 length** – 0 number of vowels
	Null string	**Null string**
#9	[2 number of string]	
	[**0 length** – 0 number of vowels]	[**1 length** – 0 number of vowels
	Null string	**C**
…		
..		
..		
..		

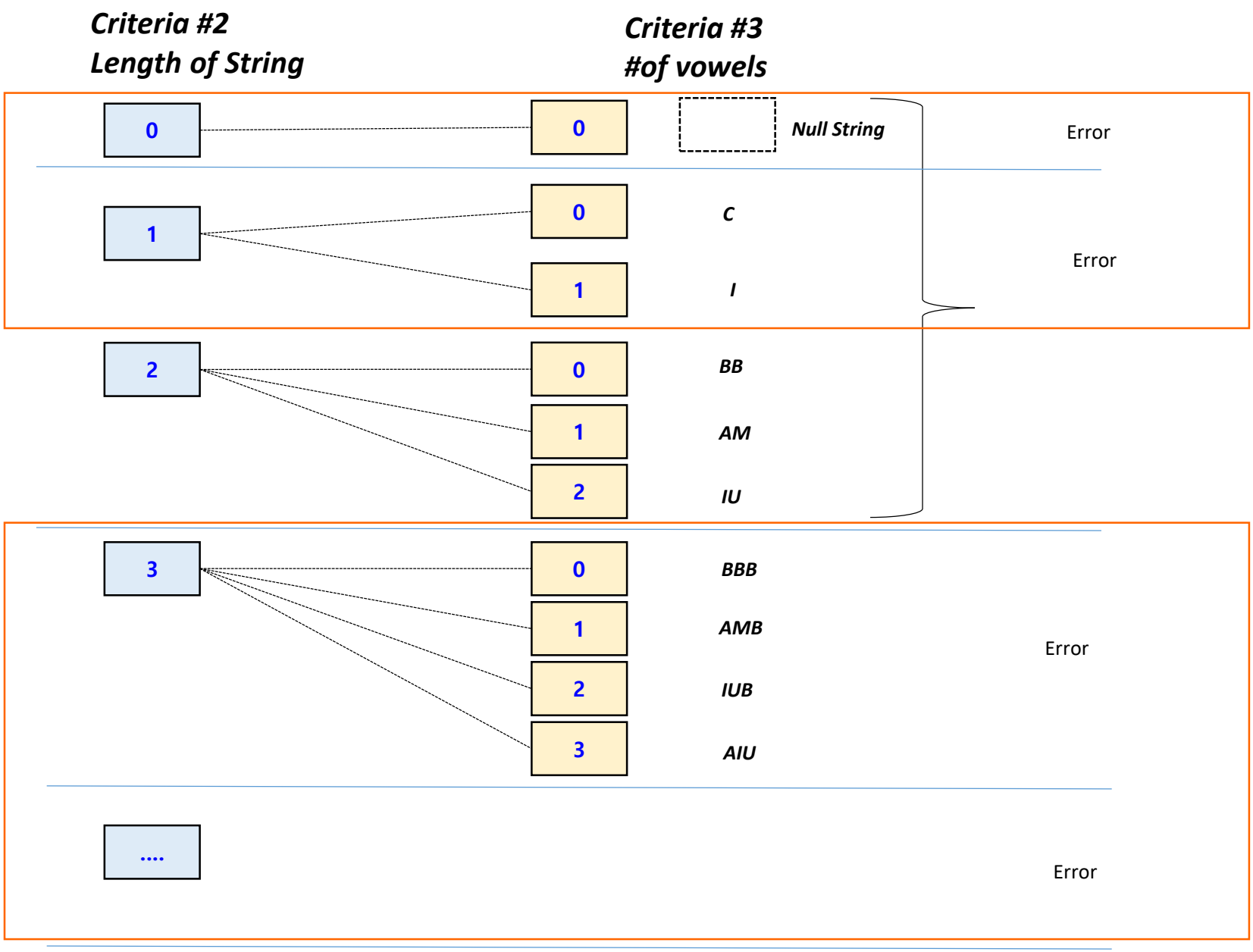
- **3. Driving Test Cases**

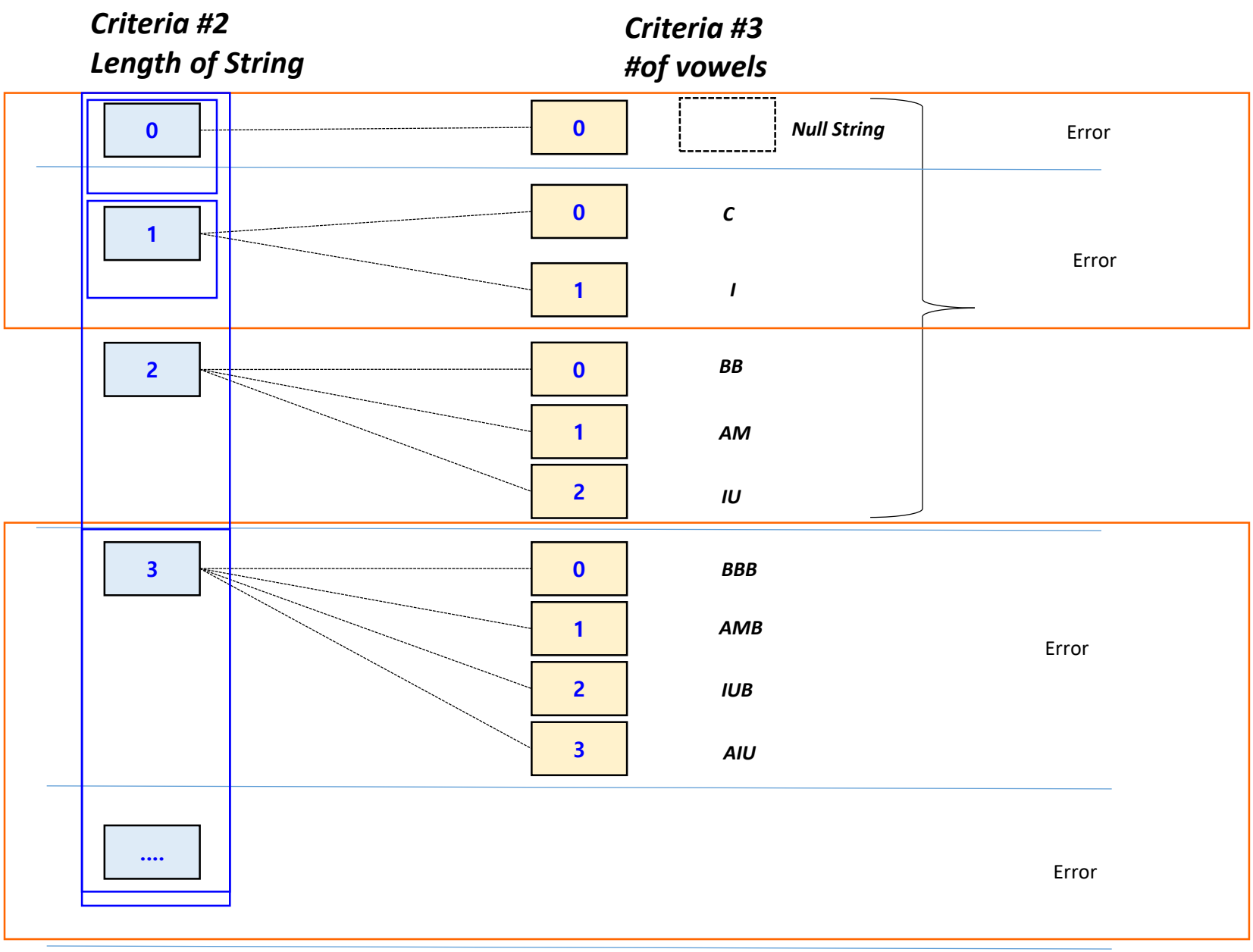
Criteria Dependency between #1 & #2 & #3



0	*Null String*
0	*C*
1	*I*
0	*BB*
1	*AM*
2	*IU*

Test Cases	Input Strings		
#44	[3 number of string]		
	[**0 length** – 0 number of vowels]	[**0 length** – 0 number of vowels]	[**0 length** – 0 number of vowels]
	Null string	**Null string**	**Null string**
…			
..			
…			
Total Test Case = $1+6+6^2+6^3 = 259$			


Criteria #2
Length of String
Criteria #3
#of vowels
0
0
Null String
Error
1
0
C
Error
1
I
2
0
BB
1
AM
2
IU
3
0
BBB
1
AMB
Error
2
IUB
3
AIU
....
Error


Criteria #2
Length of String
Criteria #3
#of vowels
0
1
2
3
....
0
0
1
0
1
2
0
1
2
3
Null String
C
I
BB
AM
IU
BBB
AMB
IUB
AIU
Error
Error
Error
Error