

## TEST CASES EXPLANATION

After loading the machine with *config* file, the machine will look like -

<b>Outlets = 4</b>	<b>INGREDIENTS</b>					
<b>total_quantity</b>	<b>500</b>	<b>500</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>0(Not Avail.)</b>
	hot_water	hot_milk	ginger_syrup	sugar_syrup	tea_leaves_syrup	green_mixture
hot_tea	200	100	10	10	30	-
hot_coffee	100	400	30	50	30	-
black_tea	300	-	30	50	30	-
green_tea	100	-	30	50	-	30

Following are the various test cases present in the *testcases.json* file. Every test case tests one of the functionality provided by the Coffee Machine / Exceptions / Any other scenario possible.

To run the test cases, enter the test case name you want to run in the following format:

**test\_case\_x**

here,  $1 \leq x \leq 8$  as eight different test cases have been added in the *testcases.json* file.

### 1. **serveBeverage()**

- test\_case\_1 - A request is made to the Machine for the beverage and **IT IS SERVED** since all the ingredients are present in the Machine in sufficient quantities.  
**input** - [serve hot\_tea, serve hot\_coffee]  
**output** - serves both the requests
- test\_case\_2 - A request is made to the Machine for the beverage and is **NOT SERVED** because currently the machine does not serve the requested beverage (Exception)  
**input** - [serve cold\_coffee]  
**output** - throws exception
- test\_case\_3 - A request is made to the Machine for the beverage and is **NOT SERVED** because ingredients are present but are not sufficient in the inventory

**input** - [serve hot\_tea, serve hot\_coffee, serve black\_tea]

**output** - black\_tea not served because after serving hot\_tea and hot\_coffee, sugar\_syrup is left only 40ml but black\_tea required 50ml

- d. test\_case\_4 - A request is made to the Machine for the beverage and is **NOT SERVED** because one or more ingredients required by the beverage is not present in the inventory (Exception)

**input** - [serve green\_tea]

**output** - green mixture not available, throws exception

## 2. refillAll()

- a. test\_case\_5 - Extended version of TestCase3, where we refill the ingredients and place the same request again and the request **IS SERVED**

**input** - [serve hot\_tea, serve hot\_coffee, serve black\_tea, refill\_all, serve back\_tea]

**output** - this time black\_tea will be served

## 3. showIngredientsRunningLow()

- a. test\_case\_6 - Will check if any ingredient is running low initially and then after serving a few beverages, will check if now any ingredient is running low.

**Note:** An ingredient is said to be running low if its current availability is less than 25% of the maximum possible.

**input** - [serve hot\_coffee, serve black\_tea, show\_ingredients\_running\_low]

**output** - hot\_water, hot\_milk, sugar\_syrup are left < 25% of the maximum value, so they will be indicated as running low

## 4. refill()

- a. test\_case\_7 - Will refill only the required ingredient, and then serve the beverage which could not be served earlier

**input** - [serve hot\_tea, serve hot\_coffee, serve black\_tea, refill sugar\_syrup, refill hot\_water, serve black\_tea]

**output** - first time back\_tea will not be served but the next time it will be served as the required ingredients are filled

- b. test\_case\_8 - refill a ingredient which is not present

**input** - [refill sugar]

**output** - exception throw