Assignment-2

Software specification: The following is the software specification for a car trading system where the users can trade their cars using a web application or by going to the store directly to buy or sell the car. Only the below mentioned locations and car brands are allowed. The trader can only buy or sell his car during the trading hours. Only the valid registration numbers are processed. The payment can be done only using VISA, MasterCard, bank transfer and Paypal.

Factors with different levels	
1)Order category	1. Buy 2. Sell
2) Location	1. Redmond 2. Bellevue 3. Issaquah 4. Sammamish 5. Kirkland 6. Everett
3) Car brand	1. Toyota 2. Jeep 3. Tesla 4. Hyundai 5. Subaru 6. Honda
4) Registration numbers	1. Valid 2. Invalid
5) Order Time	1. Trading hours 2. Non trading hours
6)Order Type	1. In-store 2. Web App
7) Payment Type	1. VISA 2. MasterCard 3. Bank transfer 4. Paypal

Tool Inputs:

Slothman

Pairwise generator

Create pairwise or all combinations of your parameters

Pairwise ▾		SHOW CONDITIONS		GENERATE		
✕	✕	✕	✕	✕	✕	✕
Order category	Location	Car brand	Registration numbe	Order Time	Order Type	Payment Type
Buy	Redmond	Toyota	Valid	Trading Hours	In Store	VISA
Sell	Bellevue	Jeep	Invalid	Non Trading Hours	Web App	MasterCard
Value	Issaquah	Tesla	Value	Value	Value	Bank transfer
Value	Sammamish	Hyundai	Value	Value	Value	Paypal
Value	kirkland	Subaru	Value	Value	Value	Value
Value	Everett	Honda	Value	Value	Value	Value
✚	✚	✚	✚	✚	✚	✚

Test Cases generated:

	combinations						
	Order category	Location	Car brand	Registration numbers	Order Time	Order Type	Payment Type
2	Sell	Bellevue	Jeep	Valid	Trading Hours	Web App	VISA
3	Sell	Issaquah	Tesla	Invalid	Non Trading Hours	In Store	Paypal
4	Buy	Sammamish	Jeep	Invalid	Trading Hours	In Store	MasterCard
5	Buy	Redmond	Tesla	Valid	Non Trading Hours	Web App	Bank transfer
6	Buy	Redmond	Jeep	Valid	Trading Hours	In Store	Paypal
7	Buy	Bellevue	Toyota	Invalid	Trading Hours	In Store	Bank transfer
8	Sell	Everett	Honda	Valid	Non Trading Hours	Web App	MasterCard
9	Buy	Issaquah	Subaru	Invalid	Trading Hours	Web App	VISA
10	Buy	Everett	Hyundai	Invalid	Non Trading Hours	In Store	VISA
11	Buy	kirkland	Honda	Invalid	Trading Hours	In Store	Paypal
12	Sell	kirkland	Jeep	Valid	Non Trading Hours	Web App	Bank transfer
13	Sell	Sammamish	Toyota	Valid	Non Trading Hours	Web App	Paypal
14	Sell	Issaquah	Hyundai	Valid	Trading Hours	Web App	Bank transfer
15	Sell	Redmond	Honda	Invalid	Non Trading Hours	In Store	VISA
16	Sell	Redmond	Subaru	Valid	Non Trading Hours	In Store	MasterCard
17	Sell	Issaquah	Toyota	Invalid	Trading Hours	Web App	MasterCard
18	Buy	Everett	Toyota	Invalid	Trading Hours	Web App	Paypal
19	Buy	Issaquah	Jeep	Valid	Trading Hours	In Store	Bank transfer
20	Sell	Bellevue	Tesla	Valid	Non Trading Hours	In Store	MasterCard
21	Buy	kirkland	Tesla	Invalid	Trading Hours	In Store	VISA
22	Sell	Everett	Tesla	Valid	Trading Hours	Web App	Bank transfer
23	Buy	Bellevue	Hyundai	Valid	Non Trading Hours	Web App	Paypal
24	Sell	kirkland	Toyota	Valid	Trading Hours	Web App	VISA
25	Sell	Sammamish	Tesla	Valid	Non Trading Hours	In Store	VISA
26	Sell	kirkland	Hyundai	Invalid	Non Trading Hours	In Store	MasterCard
27	Sell	Redmond	Toyota	Valid	Trading Hours	In Store	MasterCard
28	Sell	Sammamish	Subaru	Valid	Trading Hours	Web App	Bank transfer
29	Buy	Bellevue	Subaru	Valid	Trading Hours	Web App	Paypal
30	Buy	Redmond	Hyundai	Invalid	Non Trading Hours	In Store	MasterCard
31	Buy	kirkland	Subaru	Valid	Trading Hours	Web App	MasterCard
32	Buy	Bellevue	Honda	Invalid	Trading Hours	Web App	Bank transfer
33	Sell	Everett	Jeep	Invalid	Non Trading Hours	In Store	Bank transfer
34	Buy	Everett	Subaru	Valid	Non Trading Hours	In Store	Bank transfer
35	Buy	Issaquah	Honda	Invalid	Non Trading Hours	Web App	Paypal
36	Buy	Sammamish	Hyundai	Invalid	Trading Hours	In Store	MasterCard
37	Sell	Sammamish	Honda	Valid	Non Trading Hours	In Store	Paypal

The total number of combinations that can be possible are = 2* 6* 6* 2* 2* 2* 4 = 2304. By using pairwise combination techniques, the combinations can be drastically reduced to 36.

Examples :

1. The user in the Bellevue location is selling his car of brand Jeep with a valid registration number during the trading hours using a web app of payment type VISA.
2. The user in the Issaquah location is selling his car of brand Tesla with a invalid registration number during the non trading hours going to the store making a payment through Paypal.
3. The user in the Sammamish location is selling his car of brand Jeep with a invalid registration number during the trading hours going to the store making a payment through Mastercard.
4. The user in the Redmond location is selling his car of brand Tesla with a valid registration number during the non trading hours using a web app of payment type bank transfer.

References:

https://www.softwaretestinghelp.com/what-is-pairwise-testing/

https://slothman.dev/pairwise-generator/