Assignment: 2
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1. Software specification

- Software specification is for *vehicle design.*
  - ➢ This software is use for assemble the car using the information given:
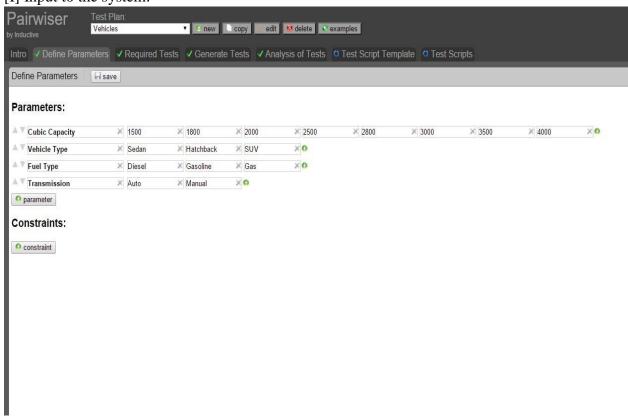
Factors and their values

No	Factors	Values
1.	Cubic Capacity	1500
		1800
		2000
		2500
		2800
		3000
		3500
		4000
2.	Vehicle Type	SUV
		Sedan
		Hatchback
3.	Fuel Type	Gasoline
		Diesel
		Gas
4.	Transmission	Auto
		Manual

- ➢ It contains total four factors Cubic Capacity, Vehicle Type, Fuel Type and Transmission with 8, 3, 3, 2 values respectively.
- ➢ Total possible combination of factors: 8 * 3 * 3 * 2 = 144.
- ➢ Combination generated by 2 – wise: 28

2. Tool reports
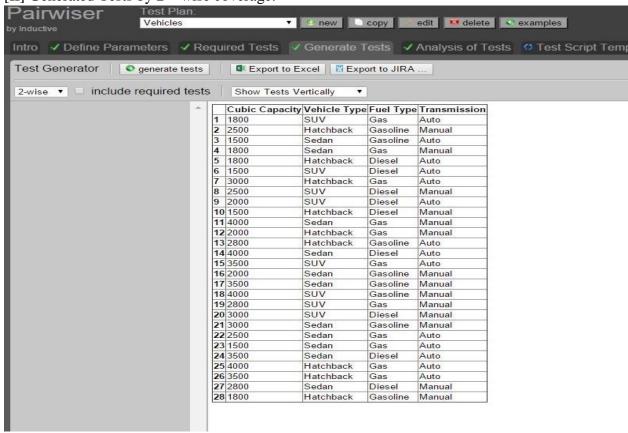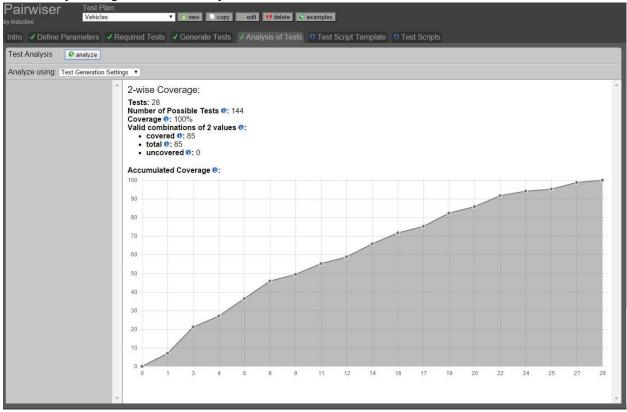
- **Tool: Pairwiser by Inductive**

[I] Input to the system:

[II] Generated Tests by 2 – wise coverage:

	Cubic Capacity	Vehicle Type	Fuel Type	Transmission
1	1800	SUV	Gas	Auto
2	2500	Hatchback	Gasoline	Manual
3	1500	Sedan	Gasoline	Auto
4	1800	Sedan	Gas	Manual
5	1800	Hatchback	Diesel	Auto
6	1500	SUV	Diesel	Auto
7	3000	Hatchback	Gas	Auto
8	2500	SUV	Diesel	Manual
9	2000	SUV	Diesel	Auto
10	1500	Hatchback	Diesel	Manual
11	4000	Sedan	Gas	Manual
12	2000	Hatchback	Gas	Manual
13	2800	Hatchback	Gasoline	Auto
14	4000	Sedan	Diesel	Auto
15	3500	SUV	Gas	Auto
16	2000	Sedan	Gasoline	Manual
17	3500	Sedan	Gasoline	Manual
18	4000	SUV	Gasoline	Manual
19	2800	SUV	Gas	Manual
20	3000	SUV	Diesel	Manual
21	3000	Sedan	Gasoline	Manual
22	2500	Sedan	Gas	Auto
23	1500	Sedan	Gas	Auto
24	3500	Sedan	Diesel	Auto
25	4000	Hatchback	Gas	Auto
26	3500	Hatchback	Gas	Auto
27	2800	Sedan	Diesel	Manual
28	1800	Hatchback	Gasoline	Manual

[III] Analysis of generated tests by 2 – wise:

2-wise Coverage:

Tests: 28
Number of Possible Tests ⓘ: 144
Coverage ⓘ: 100%
Valid combinations of 2 values ⓘ:
  - **covered** ⓘ: 85
  - **total** ⓘ: 85
  - **uncovered** ⓘ: 0

Accumulated Coverage ⓘ:

3. Test cases generated by 2 – wise coverage:

	Cubic Capacity	Vehicle Type	Fuel Type	Transmission
1	1800	SUV	Gas	Auto
2	2500	Hatchback	Gasoline	Manual
3	1500	Sedan	Gasoline	Auto
4	1800	Sedan	Gas	Manual
5	1800	Hatchback	Diesel	Auto
6	1500	SUV	Diesel	Auto
7	3000	Hatchback	Gas	Auto
8	2500	SUV	Diesel	Manual
9	2000	SUV	Diesel	Auto
10	1500	Hatchback	Diesel	Manual
11	4000	Sedan	Gas	Manual
12	2000	Hatchback	Gas	Manual
13	2800	Hatchback	Gasoline	Auto
14	4000	Sedan	Diesel	Auto
15	3500	SUV	Gas	Auto
16	2000	Sedan	Gasoline	Manual
17	3500	Sedan	Gasoline	Manual
18	4000	SUV	Gasoline	Manual
19	2800	SUV	Gas	Manual
20	3000	SUV	Diesel	Manual
21	3000	Sedan	Gasoline	Manual
22	2500	Sedan	Gas	Auto
23	1500	Sedan	Gas	Auto
24	3500	Sedan	Diesel	Auto
25	4000	Hatchback	Gas	Auto
26	3500	Hatchback	Gas	Auto
27	2800	Sedan	Diesel	Manual
28	1800	Hatchback	Gasoline	Manual