1.1. Build equivalence classes (partitions) based on given information

Invalid	Valid for 50$	Valid for 500$	Valid for >500$	Invalid
<5$	≥ 5$ 0% <50$	≥50$ 1% <500$	≥500$ 3% ≤1000$	>1000$

1.2. Stand Out boundary values

Invalid	Valid for 50$	Valid for 500$	Valid for >500$	Invalid
4$	5$ 49$	50$ 499$	500$ 1000$	1001$

2.1. Build decision table based on given information.

Inputs	C1	C2	C3	C4	C5	C6	C7	C8
Pensioner over 60	Y	Y	Y	Y	N	N	N	N
Student	Y	Y	N	N	Y	Y	N	N
Bought travel card during last 6 months in a row	Y	N	Y	N	Y	N	Y	N
Outputs								
Discounts (%)	25	20	15	10	25	20	5	0
Error*	+	+						

Error means that the discounts for Students and Pensioners don’t sum up.

Rationalized table:

Inputs	C1	C2	C3	C4	C7	C8
Pensioner over 60	**Y/N**	**Y/N**	Y	Y	N	N
Student	Y	Y	N	N	N	N
Bought travel card during last 6 months in a row	Y	N	Y	N	Y	N
Discounts (%)	25	20	15	10	5	0
Error*	+	+				

Test cases:

#	Condition	Outcome
1	Pensioner, has bought a travel card during last 6 months in a row	15% of discount
2	Pensioner, hasn’t bought a travel card during last 6 months in a row	10% of discount
3	Student, has bought a travel card during last 6 months in a row	25% of discount
4	Student, hasn’t bought a travel card during last 6 months in a row	20% of discount
5	A person (not a pensioner and not a student), has bought a travel card during last 6 months in a row	5% of discount
6	A person (not a pensioner and not a student), hasn’t bought a travel card during last 6 months in a row	0% of discount

3.1. State transition