CSC364/CSCM64 Lab 3

To be solved in groups of two or three.
Last day for lab sign-off: 21st March 2022

Task 1. A marketing company wishes to test their software which decides how to treat clients according to three characteristics: Gender, City Dweller, and Age Group: A (under 30), B (between 30 and 60), C (over 60).

The company has four products (W, X, Y, and Z) which they want to market. To this end their software emails product offers to those clients to whom a product appeals.

- Product W will appeal to female city dwellers.
- Product X will appeal to young females.
- Product Y will appeal to male middle aged shoppers who do not live in cities.
- Product Z will appeal to all but older females.

Develop a test suite for this software following the Decision Table Based Testing approach by taking the following steps:

1. Define conditions for an extended decision table and compute the number of rules expected in the decision table.
2. Define actions for an extended decision table.
3. Give a decision table including a rule count and a comparison to the expected number of rules. Reduce the number of columns as much as possible using "don't care"-entries.
4. Provide a test suite.

Answer 1.

1. Conditions:
    - Gender: M, F
    - City Dweller?: Y, N
    - Age Group: A, B, C

Number of rules: $2 \times 2 \times 3 = 12$.

2. Actions: Advertise W, Advertise X, Advertise Y, Advertise Z.

3.

Gender	F	F	F	F	F	-	M	M	M
City Dweller?	Y	Y	Y	N	N	N	Y	N	N
Age Group	A	B	C	A	B	C	-	A	B
Rule Count	1	1	1	1	1	2	3	1	1
Advertise W	X	X	X						
Advertise X	X			X					
Advertise Y									X
Advertise Z	X	X		X	X				

NB. The statement "will appeal to all but older females" is somewhat ambiguous. We have chosen here the interpretation that the product appeals to all females except older ones. It is also possible to interpret this to mean that the product appeals to everyone except older females.

4.

Case	Gender	City Dweller?	Age	Expected Output
1	F	Y	21	Advertise W, X, Z
2	F	Y	30	Advertise W, Z
3	F	Y	65	Advertise W
4	F	N	21	Advertise X, Z
5	F	N	30	Advertise Z
6	F	N	65	Advertise nothing
7	M	Y	65	Advertise nothing
8	M	N	21	Advertise nothing
9	M	N	30	Advertise Y