Equivalence Partitioning
&
Boundary Values

Task 1

An input field that accepts integer values from 18 to 99 inclusive.
Write checks using the Boundary Values and Equivalence Partitioning techniques

Equivalence classes

Test at least one value from each class

Positive classes	Values to check	Expected result
18-99	50	successfully
Negative classes		
1-17	8	error message
0	0	error message
100 +	120	error message
Letters	nR	error message
Special characters	@#	error message
Floating-point number	12,1	error message

Boundary Values

Classes	Boundary Values
18-99	17, 18, 19 and 98, 99, 100 and 50

Task 2

The wellness program for employees is combined with health insurance coverage and has the following rules:

- Employees who consume 17 units or less of alcohol per week receive a $28 discount on their premium.
- For employees who complete a Health Risk Assessment, the fee is reduced by $23.
- Employees who participate in the company's annual health check-ups will receive a $50 discount for having a body mass index (BMI) of 25.5 or less, and a $19 discount for BMI below 30.
- Non-smokers receive an additional $46 discount. Smokers who have joined a smoking cessation course receive a $24 discount. Smokers who have not joined a smoking cessation course pay an additional $75.

Using the equivalence class technique, you need to write tests to cover the above conditions 100% of the time

Equivalence classes

Equivalence classes	Values to check	Expected result
17 or less	8	$28 discount
More than 17 units of alcohol	25	no discount
Complete a Health Risk Assessment	no	$23 discount
Not complete the Health Risk Assessment	no	no discount
IBM of 25.5 or less	13,5	$50 discount
IBM from 25.5 to 30	27,5	$19 discount
IBM of 30 or less	25	$19 discount
IBM more than 30	45	no discount
Do not participate in the annual control	no	no discount
Non-smokers	no	$46 discount
Smokers who have joined a smoking cessation course	no	$24 discount
Smokers who have not joined a smoking cessation program	no	pay $75

Task 3

Write checks for the date entry field that filters out users under the age of 18

Equivalence classes

Equivalence classes	Values to check	Expected result
18 +	1998-11-16 - 25 years (if current date is 2023-11-16)	successfully
0 - 17	2018-11-16 - 5 years (if current date is 2023-11-16)	error message
0	no	error message
Unrealistic date	2005-25-11	error message
Extreme date	1000-08-11	error message
Letters	bgBG	error message
Special characters	@#$%	error message

Boundary Values

Classes	Boundary Values
18 +	2005-11-17 (day **before** the 18th), 2005-11-16 (day of the 18th), 2005-11-19 (day **after** the 18th)

Thank you!