Equivalent Class Testing

Submit Assignment

Due Mar 18 by 11:59pm **Points** 100 **Submitting** a file upload **File Types** pdf
Available Jan 23 at 12am - May 23 at 11:59pm 4 months

Using equivalence testing and boundary value testing concepts, answer the questions that follow. Given below is an example form which has some fields like Name, Age, Destination and a few buttons like OK and Cancel. Based on the input keyed in by the user, the fare price is displayed.

There is also a discount table which dictates the fare-price for each age tab.

The Discount Table

Age	Discount
0-4 years	100%

Age	Discount
5-15 years	50%
16-64 years	0%
64 years and older	25%

The application also has a regional fare distribution. In the sense, fares to the same region are the same.

The Fare Table

Destination	Fare
Manchester	£42.30
Liverpool	£42.30
Warrington	£42.30
Glasgow	£61.80
Edinburgh	£61.80
Cardiff	£31.10
Swansea	£31.10

Destination	Fare
Newport	£31.10

1. As part of equivalence class partitioning and boundary value analysis, what are the test values you would input for the age field and what would be the expected output? For example, you could follow the tabular format that follows:

Test Input	Expected Result	Equivalence class
0	Travel for free	Age group: 0-6
1	Travel for free	Age group: 0-6

2. Follow the similar format as defined for question 1 and define the input values for Destination field and Name. What would be the expected output? Make any valid assumptions that may be required.

3. Draw a diagram representing an equivalent class partitioning of the input domain(s). Do you need one/two/three diagrams? List the predicates you'll use to create boundaries.

4. Create an Oracle encompassing Equivalent Class, Boundary Value, and Random Testing techniques. For each of these, create test cases covering concepts such as Robustness, Reliability etc. The number of test cases is deliberately not stated here since you need to think and figure out how many is sufficient.

5. For a given output, is there enough information to gather what the input vector is? Give examples that cover all possible scenarios.

Domain Testing

Criteria	Ratings			Pts
Question 1 *Equivalence classes correctly defined and enough test vectors created to cover all partitions*	20.0 pts Excellent	10.0 pts Average	0.0 pts Poor/Late	20.0 pts
Question 2 *Test vectors created cover all scenarios*	20.0 pts Excellent	10.0 pts Average	0.0 pts Poor/Late	20.0 pts
Question 3 *Equivalent Partition diagram clearly and neatly presented*	20.0 pts Excellent	10.0 pts Average	0.0 pts Poor/Late	20.0 pts
Question 4 *Oracle and test vectors are presented neatly and cover all scenarios*	20.0 pts Excellent	10.0 pts Average	0.0 pts Poor/Late	20.0 pts
Question 5 *Output --> Input relationship and test vectors are presented neatly and cover scenarios*	20.0 pts Excellent	10.0 pts Average	0.0 pts Poor/Late	20.0 pts
				Total Points: 100.0