**Test design techniques Homework – 02**  Fani Shundovska

**BVA**

**Exercise 1**

**In an Examination, a candidate has to score a minimum of 24 marks in order to clear the exam. The maximum that he can stcore is 40 marks.  Identify Boundary values if the student clears the exam.**

Answer:

Using Boundary Value Analysis, to identify Valid Equivalence values: valid Equivalence values will be in a Valid Equivalence class (Class II).

The classes will be as follows:  
Class I: values < 24   => invalid class  
Class II: 24 to 40       => valid class  
Class III: values > 40 => invalid class

**Exercise 2**

You are testing a scale system that determines shipping rates for a regional web-based auto parts distributor. Due to regulations, shipments cannot exceed $17.00. You want to include boundary value analysis as part of your black-box test design.  Which values you should test? (Tabela od prezentacija ili viber)

Answer:

1. Weight:
   * Test the lower boundary of each weight range: 1 lbs, 11 lbs, 26 lbs, and 51 lbs.
   * Test the upper boundary of each weight range: 10 lbs, 25 lbs, 50 lbs, and a weight exceeding 51 lbs.
2. Shipping Cost:
   * Test the lower boundary of each shipping cost: 5.00, 5.00, 7.50, 12.00, 12.00, *and* 17.00.
   * Test the upper boundary of each shipping cost: 6.00, 6.00, 8.00, 13.00, 13.00, *and* 18.00.

**Exercise 3**

If you are T-Mobile customer with package “Standard package”, for voice calls you make you have the possibility to pay different charges per minute in different periods of the day. When you make calls in period from 08:00:00 in the morning until 18:30:00 in the afternoon ('the rush hour'), you pay charge 0.1305 euro per minute plus 0.08333-euro startup fee (startup fee is fixed amount applied to every call regardless of the duration). You will pay same startup fee with cheaper prices 0.0764 euro per minute if you make calls in period 18:30:00 – 00:00:00 and period 00:00:00 – 08:00:00

**EP**

**Exercise 1**

**One of the fields on a form contains a text box that accepts numeric values in the range of 18 to 25. Identify the valid and invalid Equivalence classes**

**Exercise 2**

In a program statement that accepts only one choice from among 10 possible choices, numbered 1 through 10 define the valid partition.

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**Exercise 4**

You are testing a medical application that is used only by teenagers. Define the valid and invalid partitions.

**Exercise 5**

An employee’s bonus is to be calculated. It cannot become negative, but it can be calculated to zero. The bonus is based on the duration of the employment.  An employee can be employed for less than or equal to 2 years, more than 2 years but less than 5 years, 5 to 10 years, or longer than 10 years. Depending on this period of employment, an employee will get either no bonus or a bonus of 10%, 25% or 35%

How many valid equivalence partitions are needed to test the calculation of the bonus? Write them down.