Teams: 3 or 4 members – 1 from MBA, 2 or 3 from Masters of Sw. Eng./Comp. Sci.
Worth: 25 points

**Task**

Your assignment is to model and analyze the “as is” business process model for a Vehicle Inspection Process and to design and automate a “to be” process. A description of the “as is” process and issues identified in this process can be found in the case study “Frumherji Ltd. Reykjavik: Vehicle Inspection and Emissions-Testing Process” that was handed to you. In some places, the case study description is not detailed enough. In these cases, you can make your own assumptions.

Your work starts with understanding the “as is” process. To this end, you will model the process in BPMN, starting from a value chain and drilling down to sub-processes where appropriate. This process model should cover the “normal course of action” (happy path), as well as errors or exceptions.

Next, you will analyze the “as is” process quantitatively and qualitatively leading to an “issue register” that follows the format specified in Chapter 6 of the textbook.

Based on the identified issues, you will then design a “to-be” process. You will explain the proposed changes, how and to what extent these changes help to address the issues identified before, and which other possible changes you considered and why did you discard them. This will lead to a “to-be” process model.

To give an initial idea of how the to-be process could be automated by means of a new process-aware information system, you are requested to implement the to-be process model in Bizagi. The process implementation should produce forms allowing actors in the process to enter relevant data. The form in the last page of the case study description should be taken into account. The form is in Icelandic but a translation can be obtained using online dictionaries. You do not need to include all fields in the form but also a sample of them covering different parts of the form.

The implementation should include roles and a small number of participants for each role.

**When, What and Who**

The project must be submitted in three parts as follows.

1. **Part 1.** The “as is” process model and quantitative analysis of “as is” process. To be performed by the IT team members. Due on Monday 22 April at 9am.

2. **Part 2.** Report containing the following sections: (i) issue register, (ii) proposed process changes and justification for each proposed change; (iii) analysis of the expected benefits of the proposed changes; (iv) alternative changes that were considered and discarded and reason for discarding them; (v) “to be” process model in BPMN; (vi) requirements for an IT solution to support the to-be process. To be completed by the MBA team member. Due on Monday 6 May at 9am.

3. **Part 3:** Executable process model in Bizagi. Due on Thursday 16 May at 9am. Submit the Bizagi “.bpmn” file online the saved virtual machine on a memory stick.
Parts 1-3 must be submitted using the homework submission system on the course web page.

Additionally, each team will deliver a short presentation of their project on 16 May, 9:00-12:00 in room A313 (Narva mnt 4, Oeconomicum). The presentation should present the outcomes of the qualitative/quantitative analysis and redesign, as well as a demo of the executable process model.

**Grading**

Your grade will be determined as follows.

If you are an IT student (Masters of Software Engineering or Masters of Computer Science):

- 10 points for part 1
- 10 points for part 3
- 5 points for overall quality of the solution, assessed based on the oral presentation

If you are an MBA student:

- 20 points for part 2
- 5 points for overall quality of the solution, assessed based on the oral presentation

**Additional Notes**

- The report will not be made public.
- When submitting parts 1 or part 2 of the project, make sure you also share the submitted material to all your team-mates so that they can proceed with the following part.
- If one or several of your team members miss one of the deadlines above, the lecturer will propose an alternative course of action so that you do not miss the following deadline.