Dear Colleagues,

The main topic of the SE course planned for the 8th of April is to finish the Object Design topic by discussing about Design Patterns. After a brief presentation of Design Patterns including the features characterizing them, a short explanation about why the reusability is so important is offered.

The seminal book of Gamma, Helm, Johnson, and Vlissides: "Design Patterns: Elements of Reusable Object-Oriented Software", published in 1994, introduced firstly these constructs. In the above-mentioned book, Design Patterns were structured in 3 groups: Structural Patterns, Behavioral Patterns and Creational Patterns.

In the beginning all the five Structural Patterns are discussed, next the four Behavioral Patterns are presented. At the end, the two Creational Patterns are analyzed.

Regarding this topic, my warm advice is to analyze carefully the implementation of these Design Patterns in different OOPLs: Java, C#, C++ etc. Moreover, I ask you to do a Reverse-Engineering process (mainly manual) by drawing the class diagrams corresponding to the code of each Design Pattern, and to compare the diagrams produced by RE with the diagrams presented in slides and in the Bruegge's book.

At the end, let me a short "review" of the "Analysis Models" I received from your team leaders.

1. As concerning the manner of identify different teams, I received submissions in which the name of the team, the name of the members and of the teamLeader/projectManager were mentioned. This is what I expected from each team. However, I also received submissions in which only the scs email address is mentioned, or just the name of the submitter. A "special mention" for the teams named "COVID19", "Les peasants", a.s.o.

2. I'm sorry to say that my general conclusion: both the concepts of "Analysis Model", shortly AM, and the system requirements were not correctly understood. The AM is the model in which the concepts of the problem domain, their structure and the relationships among them are described. The classes represented in the AM correspond to objects represented in scenarios which are represented by Sequence Diagrams. Each scenario is just one of many possible instantiations of Use Cases. The AM does not

contain solution objects. Some of the diagrams received were obtained by RE in different tools IntellyJ IDEA for example. I received also relational database diagrams. OK but these diagrams are firstly introduced in the Design Model. Moreover, almost all the entities from the AM are serialized in the DB. In the submission process, firstly only the abstracts are required. It is possible to submit both the abstract and the paper, however, not mandatory. The bidding process concerns only the abstracts. The assignment of reviewing papers to different PC members must comply with the bidding decisions. The review concerns only the papers. All accepted papers are assigned to a session. Accepted papers are presented by speaker(s) in the corresponding session a.s.o.

3. My perception for the moment, is that at least some of submissions are documents from previously years. Hoping that in the future, I will succeed to find arguments supporting my perception or proving that this was false.

As concerning the seminar. For each team: please transform your AM into a DM, illustrating both different layers if it's the case, the Design Patterns used, and the solution objects introduced in the design phase. In the first week after the Easter Weekend, please send me the design model. Also, I am waiting the class diagrams corresponding to Design Patterns code you analyzed and the link toward the code.

I am waiting for your questions.

Best regards and all my best wishes!

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