**Concordia University**

**Department of Computer Science**

**and Software Engineering**

**Software Process**

**SOEN 341/4 S --- 2016**

**Project Design Document**

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| **Team information** | |
| **Team :** | |
| **Name** | **SID** |
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***Grading Sheet***

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| ***Section*** | ***Evaluation criteria (see instructions in the template for details)*** | ***Grading*** |
| *all* | *10 marks are allocated for excellence, professionalism and quality of work above and beyond the correct meeting of specifications..* | */10* |
| *1* | *Presentation of the document* | */5* |
| *2* | *Introduction of the document* | */1* |
| *3.1 .*  *3.2* | *Validity and clarity of the architectural diagrams, as well as of the textual rationale.*  *Validity, completeness, and clarity of description of each component interface.* | */5*  */4* |
| *4.1*  *4.2* | *Validity and clarity of the (UML) class diagrams or equivalent for each subsystem, as well as of the textual rationale.*  *Validity and clarity and completeness of the class descriptions for each subsystem.* | */8*  */4* |
| *5* | *Validity and clarity of the dynamic design diagrams and contracts for each scenario.*  *Compatibility of the scenarios with the components presented in section 2 and 3, as well as of the textual rationale.* | */8* |
| *6* | *Revised cost estimation of each individual artifact, validity of explanation of cost estimation, total cost estimate* | */2* |
| *7* | *Rapid Prototyping and Risk Report* | */3* |
| *Total* |  | */50* |

***DO NOT REMOVE THIS PAGE WHEN SUBMITTING YOUR DOCUMENT***

# **Presentation**

*Professionalism of the document in terms of look and feel including, but not limited to layout colour and binding.*

# **Introduction to part 2**

*The instructions provided in blue are there to provide you indications describing the expected content of the respective sections. They are all to be deleted and replaced with appropriate content.*

*The introduction of the document provides an overview of the entire document, briefly introducing what are its goals, and what information is to be found in it.*

# **Architectural Design**

*Updated and detailed version of the architecture design presented in deliverable 1, section 1.6.*

*This section must give a high-level description of the system in terms of its modules and their respective purpose and exact interfaces.*

## **Architecture Diagram**

*A 4+1 Architectural View depicting the high-level structure of the system, accompanied by text describing the rationale of this design, and the reasons for any discrepancies with the one presented in the first deliverable. It is mandatory that the system be divided into at least two subsystems, and that the purpose of each of these subsystems be exposed here.*

## **Subsystem Interfaces Specifications**

*Specification of the software interfaces between the components, i.e. specific messages (or function calls) that are exchanged. These are also often called “*Module Interface Specifications”.

*Description of the parameters passed in these function calls in order to have a service fulfilled. Include valid and invalid ranges of values.*

*Each subsystem interface must be presented in a separate subsection.*

# **Detailed Design**

*Complete description of the system design, describing each subsystem in a separate subsection. UML class diagrams or equivalent are to be used, as well as a short textual description describing the purpose of each class.*

## 4.1 **Detailed Design Diagram**

*UML class diagram or equivalent depicting the internal structure of the subsystems, accompanied by a paragraph of text describing the rationale of the designs.*

## 4.2 **Unit Descriptions**

*List each class in the subsystem and write a short description of its purpose, as well as notes or reminders useful for the programmers who will implement them. List all attributes and functions of the class.*

# 5. **Dynamic Design Scenarios**

*Give a full dynamic design of two substantial (i.e., having at least 3 system operations) use cases including system sequence diagrams operational contracts, and sequence diagrams. Units and subsystems depicted here must be compatible with the descriptions provided in section 2 and 3.*

# 6. **Estimation**

*List all idenifiable modules, and calculate the revised estimate for each one,. Add the cost of integration, testing and documentation*.

# 7. **Rapid Prototyping and Risk**

*Rapid Prototyping Report: List and comment prototypes of modules, drivers or stubs implemented. Give the effect of this work on the design decisions made in the above. Give the effect on the risks identified in the first report, the effect on the estimate, and on any scope changes.*

*List all work related to prototyping involving:*

*Classes or modules*

*Testing code including drivers and stubs implemented*

*Technologies used including but not limited to any versioning system, groupware, frameworks if used and databases.*