**MIS 6308 Project**

**Fall 2017**

The systems analysis and design project that you choose for the MIS 6308 should meet the following requirements.

1. The project should address a real life situation and be implementable (though you will stop with the design in this project). I suggest that you consider the following two options for selecting your project topic.

a) Choose a firm to which you have access. You should be able to talk to the responsible people in the firm to identify the problems they face so that you can analyze their current system and recommend possible solutions. This may require frequent interactions with people in the firm and hence their time and commitment. However, the firm may benefit from your analysis and recommendations. If you are working in a firm, this option may be feasible for you.

b) **You can also decide to focus on systems that do not currently exist, but would be “cool” to have.** This option requires that carefully think through the problem you are addressing, making sure that you are addressing a non-trivial problem. **I strongly urge you to use this option and use this project as a springboard to enter a business plan competition.** UT Dallas hosts one every year.

2. For the system you have chosen, identify the firm’s major functions.

3. Identify at least two improvements to functionality offered by the system. The improvements could be new functions that could be useful to a potential customer or improvements over existing functions. The improvements should not be solely related to aesthetics or speed of the current system. **The complexity and innovation of the new functions you identify will be a major factor in the determination of the project grade. If you can specify the details of the new function without spending much thought and effort, the function is unlikely to be sufficiently complex. Try to think of features that are not found in this or other similar firms. Furthermore, the improvements should relate to at least one of the following technologies.**

**(1) social media, crowd-sourcing, user generated content, or related technologies/concepts,**

**(2) mobility such as location-aware features, travel direction, speed etc. or**

**(3) Internet of Things**

4. Model the proposed improvements/system using BPMN and OOA&D methodology.

5. Transform the models into detailed design

Note: The project should be sufficiently complex. I will ask each team to discuss their proposal with me in the beginning stage to determine whether the project is adequate for the course.

Your team should choose a project manager for your team. The project manager is responsible for managing all project activities and will act as a liaison between me and the team. Please look at the project management deliverable below for some of the project management data I will need as part of the report.

**Project Report Deliverables**

1. Executive Summary: It should be one-page summary of the project intended for a non-technical reader.

2. A problem statement (Systems Proposal): It should follow the format discussed in class

*Analysis*

3. A business process model using BPMN for the key business processes your system is intended to support.

4. A Context Diagram for the proposed system

5. Process Model: Use-Case Diagram for critical business processes in the proposed system

6. Data Model: A class diagram for the proposed system

7. Object Behavior Model: A Sequence Diagram for the major Use Case in the proposed system

8. Documentation of all data used in the above models using the data structure notation.

9. Functional Specification Document for the proposed system

*Design*

10. Interface Design: Layout of the interfaces used to interact with the system to use the features you have proposed. You can use any of the visual development tools to design the interfaces

11. Database Design: You need to simply show all the tables with their attributes, keys, foreign keys, and constraints. There is no need to implement the database.

12. Complete Class Diagram that includes attributes and methods for each class

13. Software Design: Document at least 5 methods using contracts. Specify the algorithms for these 5 methods using Structured English. Choose the most complex methods in your system for these specifications.

*Implementation (Extra Credit)*

14. Implement a prototype that demonstrates your proposed improvement. You can choose any platform/language that you are comfortable with.

**Project Presentation Deliverable**

14. The team should develop a presentation that can be used as a marketing material to pitch your idea. Record your presentation and load it in U-Tube. Every team member should be part of the presentation. The video will be distributed to other class members and the grade for the presentation will be based on my assessment as well as the assessment of at least one student team from the class. The JSOM Business Communication Center (BCC) offers students support with their oral presentations in addition to written work.   The BCC provides video cameras that students and faculty can check out to record presentations and upload them to the web. (Instructions for using the camera and uploading videos are included with the equipment so you don't have to figure it out.)

Please use the BCC; you can get more information and make appointments here: [http://bcc.utdallas.edu](https://webmail.utdallas.edu/owa/redir.aspx?C=EUAxrxeockC1B6pxHNUO9-ixohOVWc8IiyGxaVLLAQeWHZmffqKdVJG9cRkLXeAQ7M9y5iEarQ0.&URL=http%3a%2f%2fbcc.utdallas.edu)

**Project Management Deliverables**

The following project management details should be included in the report as well.

1. Project Activities

2. Allocation of activities to team members

3. Planned timeline

4. Execution timeline

5. Minutes of project meetings (date, time, team members present, topic discussed)

**Project Evaluation Rubric**

Overall Project Complexity and Innovativeness (10%)

1. Project Idea (5%)

Projects having standard features commonly found in popular applications will get lower scores than those having novel features

1. Mobility and Web 2.0 feature (5%)

Does the project have at least one functionality related to mobility or web 2.0?

Project Report Deliverables (80%)

1. Executive Summary
2. Problem Statement
3. Business process model using BPMN for the key business processes
4. Context Diagram for the proposed system
5. Process Model
6. Data Model
7. Object Behavior Model
8. Documentation of all data
9. Functional Specification Document for the proposed system
10. Interface design
11. Database design
12. Complete Class Diagram
13. Software Design

Project Presentation Deliverables

Clarity, Professionalism, Participation by all team members

Project Management Deliverables (5%)

Does the report include all the five project management deliverables?