## Fall 2016 CSE 4233/6233 – Software Architecture & Design Paradigms Professional Practice Milestone #1

**Objective:** Create a context diagram, module views, and a class/object diagram for the TradeNet system. Create a tentative work-assignment view to assign modules / tasks to team members. Document initial considerations, rationale and approach to implement of the TradeNet system.

**Overview:** Milestone #1 consists of establishing the structural context for your system. This milestone focuses on the team understanding what modules are needed to implement the system and the context of the system with its environment. The TradeNet system relies on several external APIs for email validation, market and company data, news feeds, and company related 'tweets'. Building the module views for the system will also allow the team to reason about the work needed for implementation and to begin discussions on assigning work tasks.

### **Assignment (Consider the TradeNet Requirements Overview and Scenario Description):**

- 1. Build a context diagram for the TradeNet system and provide your rationale / overview
- 2. Complete the following (x > 1 sentence && x < 2 paragraphs):
  - a. What is the Design Purpose?
  - b. What is the system's Primary Functionality? Describe
  - c. Describe the system's quality attributes.
  - d. List and describe any derived requirements or architectural concerns
  - e. What are the constraints? As the architect, are there any constraints you would impose? Discuss
- 3. Create 2 separate Module Views that address stakeholder concerns (for full system). Provide a description / overview and rationale for choosing the views.
- 4. Create a strick \*\*\*UML\*\*\* class/object diagram (only showing classes with no attributes / methods) and required relationships of the initial requirements implementation / prototype. Classes should be contained in packages / folder hierarchy. see example below
- 5. Create a work assignment view that assigns work (modules / tasks) to team members (1 or more)
- 6. Research (post documentation links, API keys, reference links etc):
  - a. Review Documentation on required APIs
  - b. Research model-view-controller pattern

#### **Guidelines & Notes**

- Be sure to provide a key for all diagrams
- We will use Atlassian Confluence to collaborate and store all documentation
- TradeNet Scenario addresses needs of the full system implementation. The initial requirements outline the functionality of the first prototype.
- Work assignments are tentative and only represent initial expectations

#### Submission

- All submissions will be made to your Team Space in Confluence (soma.cse.msstate.edu:8090)
   Grading:
  - Appropriateness of views (traceability to requirements, consistency between views, key, and rationale)
  - Due Nov 4 or sooner Milestone #2 Delivered after Milestone #1 Submission

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Sample Class Diagram showing classes contained in package / folder hierarchy - attributes and methods not needed for Milestone #1

