SE745: Software Modeling (Fall 2015)
Workshop Paper Submission and Review System

Product Description:

The client has proposed a workshop named "Software Architecture Mining" for an International Software Engineering Conference to be held in February 2017. You are required to develop a web-based paper submission and review system for the workshop. The system will be referred to as "SAM2017" here after.

Roles

SAM2017 must support the following roles:

- Submitter/Author: A submitter is allowed to submit papers. They may submit multiple papers and multiple versions of the same paper. A submitter has access only to the papers submitted by him/her.
- Program Committee Chair (PCC): A Program Committee Chair is responsible for assigning the papers to Program Committee members (PCM). A PCC has access to all content for each of the submissions. Each paper is assigned to three PCMs for review. A PCC should be able to generate reports on the reviewed papers.
- Program Committee Member (PCM): A PCM can choose an initial list of papers that he/she wants to review from the submissions. Only the title of the paper and author names should be accessible to the PCM. The PCMs can choose which papers he/she wants to review. He/She reviews the assigned artifacts and rates the artifacts. A PCM has content access only to the artifact that is assigned to him/her.
- Administrator: An administrator is responsible for setting up review and notification templates, setting up paper submission deadlines, notifications and reminders, and for managing user accounts (PCC, PCM and Submitter/Author). An administrator has access to all the content in SAM2017.

SAM2017 should allow authors to submit their research papers. Submitter/Author(s) must first register before submitting the paper. Each time a paper is submitted, SAM2017 notifies the Program Committee Chair (PCC) and the submitter/author(s) about the submission. Upon completion of the paper submission deadline, the PCC notifies all the PCMs about availability of papers for review. In cases where the Submitter/Author is also a PCM, SAM2017 should make sure that the PCM should not be provided with a choice to review their own paper submissions. The PCMs choose the papers that they want to review. Based on the choices, the PCC finds and assigns three PCMs for each paper. A PCM uses a template provided by SAM2017 to review and rate the paper. The reviews should ideally be submitted before the review submission deadline. Once all the reviews for the paper are entered the PCC is informed and the PCC rates the paper based on the reviews received. The PCC can also decide that the reviews present conflicting views and have the PCMs read each other's review, discuss their viewpoints, and modify their reviews. The PCC then looks over the final reviews and rates the paper.

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Paper Submission

A submitter/author may submit multiple papers or multiple versions of the same paper until the assigned submission deadline. Papers must be submitted as PDF or Microsoft Word files. When a paper is submitted, the submitter/author must fill out a template with information about the paper. Information should include at least (1) the title of the paper (2) the list of author(s) (3) contact author (4) an indication if this is a revision of a previously submitted paper and (5) the format of the paper.

Adminstrator access

SAM2017 should allow the administrator to set important dates. This includes Paper submission deadline, Review choice deadline, Review submission deadline, Author notification deadline. Administrator should also be able to add/modify/delete PCMs and PCC. *Please note that this may happen midway through a review. So you system should be able to handle the change accordingly.*

Notifications and Reminders

SAM2017 must be able to generate the following notifications and reminders

- Notify the PCC when a new paper or newer version of the previously submitted paper has been submitted.
- Notify author if the paper does not adhere to the submission format
- Notification about any change to user accounts
- Notify a PCM that a paper has been assigned to him/her for review.
- Remind a PCC every day that an unassigned paper needs attention.
- Remind a PCM every day after the review deadline has expired that a review is needed.
- Notify a PCC that all reviews have been entered and prompt for a rating.
- Remind a PCC to enter a rating every day since all reviews have been entered.
- Notify submitter of review results once the PCC has entered a rating and the review notification deadlines have passed.

The requirements provided here are ambiguous and incomplete at times. This has been done intentionally to simulate real-world settings. You should talk to the instructor and clarify any and all ambiguities.

Deliverable Models:

1. Domain Model (requirements class diagram)
2. Use case diagram, Detail description of each of the use cases (use the template given in your class notes).
3. System Sequence diagrams for the major use cases (about 3-4 at max)
4. Architectural model (package diagram)
5. Detailed Design Model
    a. Design class diagram (This should include at least 2-3 design patterns)
    b. Behavioral diagrams (Any two among the given: State diagrams, Sequence diagrams, Activity diagrams)
6. Working Implementation

All diagrams should be drawn using a UML modeling tool. You will submit the entire document as a **single document**. The document should be in ".doc" or ".pdf" format.

Grading:

Your grade for the project will be calculated from the deliverables as follows:

- 15% - Domain Model (requirements class diagram)
- 15% - Use case diagram and detailed description of each of the use cases (you may use the template given in your class notes).
- 10% - System Sequence diagrams for the major use cases (about 3-4 at max)
- 10% - Architectural model (package diagram)
- 25% - Detailed Design Model
    - Design class diagram (This should include at least 2-3 design patterns)
    - Behavioral diagrams (Any two types: State diagrams, Sequence diagrams, Activity diagrams)
- 25% - Working Implementation