Homework assignment: Service Helpdesk Application

Description of the assignment

You are member of the team which has to develop application supporting service desk team. Service helpdesk team is responsible for solving technical issues which users have with equipment in the company. Such issues can be e.g. installation of software on user's device, replacement of printer cartridge, registering user's device for ability to access internet or assignment of user to the list of allowed users for given application, etc.

Users can do their requests either via phone, email or via Service Helpdesk Application from their PC or mobile device. When request is done via phone or email a member of the service helpdesk team is responsible for entering (rewriting) request into the Service Helpdesk Application.

The user's request is put in the system queue as soon as it is created in the system. Any available technician from service desk takes the oldest ticket from queue and assigns it to itself.

When ticket is created in the system user is informed about its status by email. When there is any change in the ticket (e.g. status of the ticket is changed to assigned, ticket is solved, etc.) user is informed via email about this fact as well.

When user (or member of the service helpdesk team) creates new ticket he must enter description of the problem, priority of the issue (low, normal, high), optional deadline till when ticket must be solved and category (and possible subcategory, sub-subcategory etc.) of the issue.

User can see status of his request at any time via the Service Helpdesk Application.

System must allow exporting statistics about the usage of the Service Helpdesk Application into some external system. Such statistics can represent e.g. usage of the application by end users (grouped by department of the user) or number of requests solved by appropriate technician.

Tasks
1. Create initial calculation for the project including rough effort estimation and risks definition.
2. Create basic project plan for the project.
3. Create basic quality assurance plan for the project.
4. Create prioritized Scrum product backlog for the whole project and sprint backlog for first sprint.
5. Create use case diagrams for basic use cases and business domain model for the Service Helpdesk Application.
6. Create class diagram where all main entities and relationships between them are covered.

7. Create deployment diagram(s) for the assignment. Describe tiers of the application and responsibility of each tier.
8. Create basic activity diagrams related to the assignment and one sequence diagram describing some important aspect of the system.
9. Describe possible security issues related to the assignment in general. Describe how you would like to prevent possible security threats.
10. Create configuration management plan where you describe (in diagrams) branching approach for Service Helpdesk Application. Describe how you would like to manage maintenance windows when new version of the application is released. Describe your backup strategy.
11. Prepare basic Test Plan document with test strategy limited to unit, integration and system test level.
12. Design your GUI interface related to the system and describe test cases (test steps) checking the GUI items.

Conditions to pass the homework assignment

You must choose one of tasks described above and create document with at least 3 pages (A4 format) containing task execution. Language is English. If information is missing in a task definition make an assumption.

Document must contain:

- Name and UČO of the solver
- Name (number) of the task
- Task execution itself
- All your assumptions and ideas related to the assignment

Deadline for homework assignment: June 3rd, 2012 (inclusive).