

Instructions

The following is a sample layout (which is mostly a suggestion) for your web application project. It should be revised after each iteration (use a color code for each iteration) so that we can see the evolution of your system. You may want to share this document between your group members (on github or google docs, etc) and should submit a finalized version of this document to canvas after each iteration.

There is no standard for writing requirements but we can use the following template. In preparing this document you will discuss design and planning, but please only include requirements and a description of how the system should interact with the outside world.

This will be a living document. For the proposal you should have information pertaining to the overview sections (Abstract, Customer, Competitive Landscape), and a few of the requirements that you plan to implement in the first iteration in addition to the login requirements – see below. In subsequent iterations you will expand the applicable sections. In the third iteration, you will also be required to use at least one online API.

Document Header

Project Name

Requirements and Specification Document

mm/dd/yyyy, version _____ (please provide a color code for each iteration so we can track changes)

Project Abstract

A one paragraph summary of what the software will do.

(May be similar to what was presented in the proposal)

Customer

A brief description of the customer for this software. There may be multiple types of Customers here.

(May be similar to what was presented in the proposal)

Competitive Analysis

Briefly identify the competitors in this market, and list the main ways in which your project is going to be different. Your project does not necessarily have to be 100 percent original; it can actually be a reimplement of (a part of) an existing product, but we want you to attempt to specify the differences. Of course we will ask you to be as creative as possible.

(May be similar to what was presented in the proposal)

User Stories

This section will include the specification for your project in the form of user stories. The section should start with a **short description of the actors** involved (e.g., regular user, administrator, ...) and then follow with a list of the user stories. For each user story you should have at least: Name, Actors, Triggers/Preconditions (what initiates the story and in what system state does the story apply), Actions/Postconditions (what actions will the code take to implement the user story and what is the result of the system state after the story is over), Acceptance tests **(list one or more acceptance tests with concrete values for the parameters, and concrete assertions that you will make to verify the postconditions)**. Each user story should also have a field called "Iteration" where you specify in which iteration you implemented or plan to implement this feature.

You should list only the user stories for the previous iterations and those for the current iteration.

At the end of this section you should maintain a bullet list of user stories that you plan to get to in future iterations, with only minimal detail for each such story. We expect that in future iterations some of these items will be promoted to full-fledged user stories.

Each iteration will be marked in terms of the quality of the user stories and the amount of work completed. Please keep in mind that you have four or five member so the amount of work must successfully reflect this :)

- In iteration 1, you must (at least) include stories for **login** and views based on user role must be included in the first version as minimum requirements, and can be expanded for future iterations. You should implement the login from scratch (you may change this in later iterations). This means that you should have several types of users. Each type of user should be able to login to your system and be presented with their own view. For example, an admin user may be able to login and view every user in the database whereas a normal user may not have that ability.
- In iteration 2, you will be discussing possible improvements to the process from iteration 1. This is where you will include a velocity measurement (to be discussed in lecture to track your progress).
- In iteration 3, you must **incorporate the use of an API** (this could have also been done in previous iterations).

User Interface Requirements

Describes any customer user interface requirements including graphical user interface requirements. Here you should have sketches or mockups for the main parts of the interface. To save time you may want to use scanned drawings of interface mockups here, instead of Photoshop drawings. You may also use a rapid UI prototype tool such as invisionapp.

Marking Scheme

This is an (rough) outline of the marking scheme for iterations 1 through 3. Please note that not all parts will be marked for all iterations and future iteration marking may be graded on a stricter scale.

| | |
|--|---|
| | Content |
| | Do the requirements state the customer's needs? (from proposal) |
| | Competitive analysis (proposal) |
| | Do the requirements avoid specifying a design (customer-specified design elements are allowed) ? (proposal) |
| | Do you believe all parts are possible to implement? (proposal) |
| | Is the project scope big enough? (proposal) |
| | |
| | Content of Requirements |
| | Are the user stories written in sufficient detail to allow for design and planning? (iter 1, 2, 3) |
| | Do the user stories have sufficient unit and functional tests? (iter 1, 2, 3) |
| | Are tests implemented correctly and have a reasonable amount of system coverage? (iter 1, 2, 3) |
| | Do the user stories mention error conditions and required behavior? (iter 1, 2, 3) |
| | Are there sufficient user stories for this iteration? (iter 1, 2, 3) Throughout iteration 2 and 3, you must make some progress pertaining to velocity. A (very) rough estimate is that you should aim to have at least 1-2 story points per member per week for the second iteration and aim for an even higher number in the third iteration. This will be judged accordingly by the marker. |
| | Is there a discussion of the stories for future iterations? (iter 1, 2) |
| | Is there a discussion about the velocity of the current iteration? (iter 2, 3) |
| | Are the User Interface Requirements given with some detail? Are there some sketches, mockups? (iter 1,2,3) |
| | |
| | Clarity/Effort |
| | Is the document carefully written, without typos and grammatical errors? (iter 1, 2, 3) |
| | Is each part of the document in agreement with all other parts and not ambiguous? (iter 1, 2, 3) |

| | |
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| | <p>Effort, Creativity, and Process (iter 1, 2, 3)</p> <p>Is your group demonstrating good team work? (iter 1,2,3)</p> <p>In this section, we will analyse how your group is progressing based on your commits, whether the time frame of your work is relatively spread out.</p> |
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