Computer Science Project: "E-Book Reader Web App"

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Lecturer: Assoc. Prof. Dr. Manuel Clavel

Goal. The goal of this project is to develop a <u>web application</u> for <u>creating</u>, <u>editing</u>, and <u>reading</u> books.

[From Wikipedia: "A **web application** (or **web app**) is application software that runs on a web server, unlike computer-based software programs that are run locally on the operating system (OS) of the device. Web applications are accessed by the user through a web browser with an active network connection. These applications are programmed using a client–server modeled structure—the user ("*client*") is provided *services* through an *off-site server* that is hosted by a third-party. Examples of commonly-used web applications include: web-mail, online retail sales, online banking, and online auctions."]

The basic features (<u>required</u>) are:
- The user/author can create and edit books, organized in chapters.
- The user/reader can select the book to read.
- The user/reader can change the font and size of the text.
- The user/reader can select and copy regions of the text.
- The user/reader can use the "table of contents" to jump to the beginning of each chapter.
- The user/reader can set bookmarks in the text, and go back/jump to any bookmark.

Each group (4-5 members) can decide to support other extra features (<u>optional</u>): for example, attaching notes to selected text, highlighting selected text, and so on.

Each group can decide about the "format" of the book (i.e., about the "language" used to give "format" to the content of each book).

Timeline: The first 1 week of the course will be dedicated to the Project Planning phase. The outcome of this phase will be a set of documents where the following aspects of the project must be clearly laid down:

● Schedule and resource estimation [follow an iterative process; define user stories/acceptance tests]
● Quality Planning
● Risk management
● Project monitoring plans

The rest of the time allotted for the course will be dedicated to the Project Construction and Testing and Evaluation phases.

Resources: Groups can use "libraries", "frameworks", or "no code software development platforms", only if they have been previously approved by the lecturer during the Project Planning phase (first week).

Evaluation: Each group will be evaluated based on their ability to:
- Programming, documenting (use case diagrams (<u>required</u>), architecture/component diagrams (<u>required</u>), design patterns (<u>required</u>)) [40%], and presenting their solution [15-20 minutes: 15%].
- Reaching a goal within a limited period of time and resources (final evaluation with real users) [40%].
- Managing their work as a team [GitHub private repositories (<u>required</u>), 5%].