A Collaborative Visual Database

by

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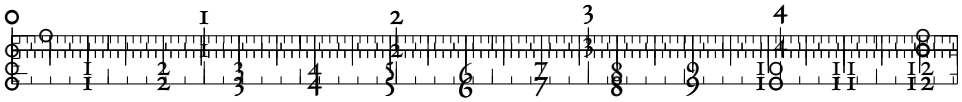
A document submitted in partial fulfillment of the requirements for the degree of

Technical Report

at

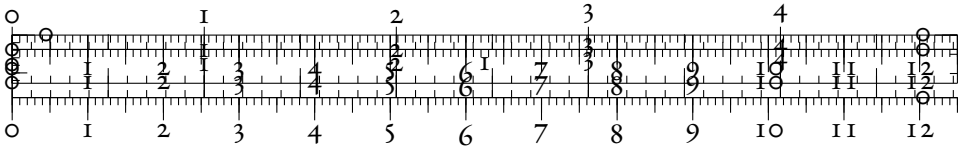
Miskatonic University



I Analysis and specification of needs

1.0.1 “Authentication and authorization” use case diagram

Diagram 1.1 describes the “authentication and authorization” use case of our application.



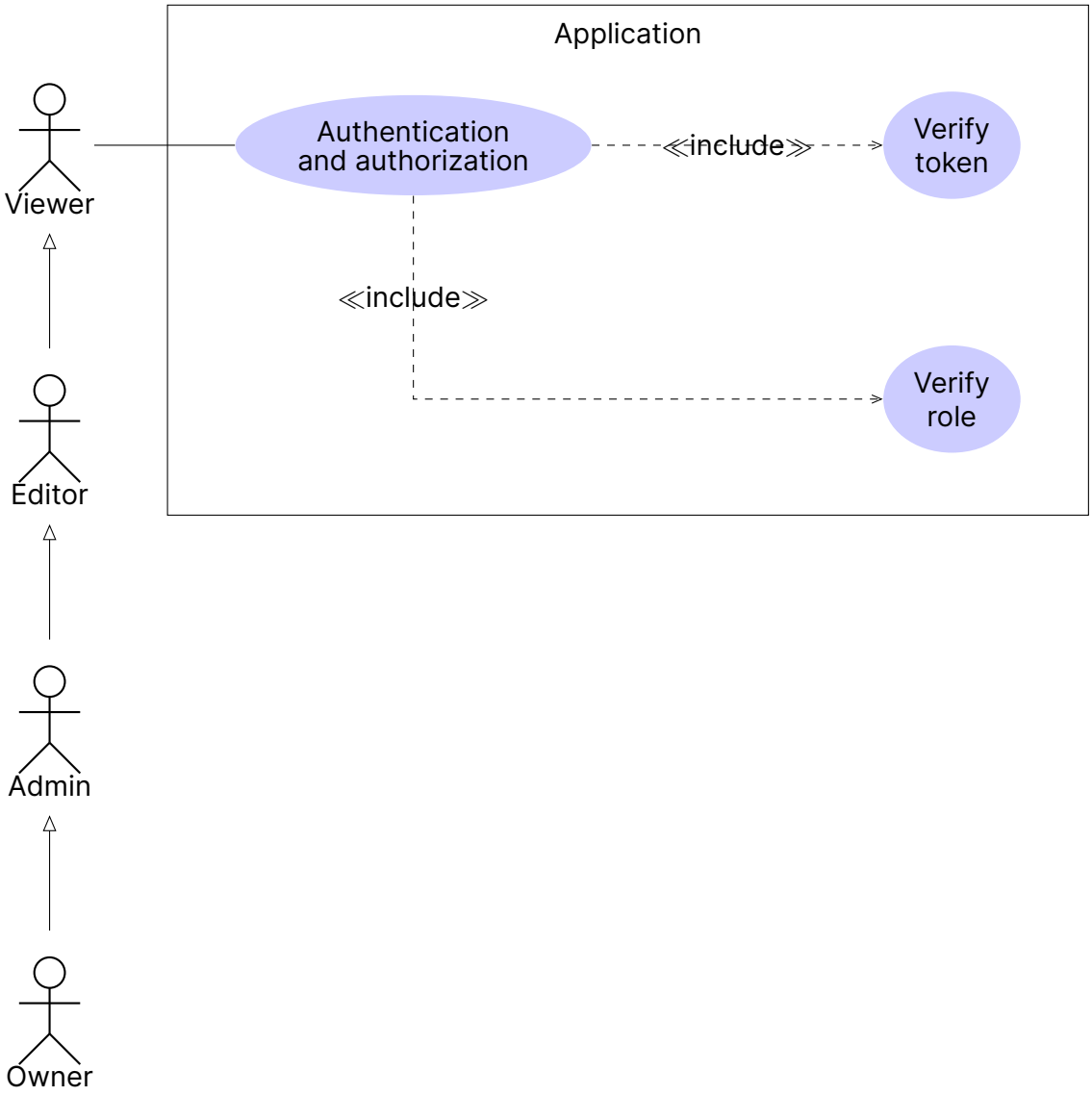
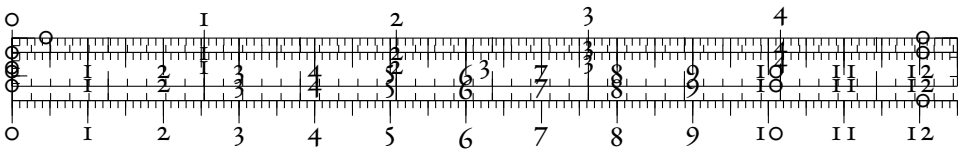


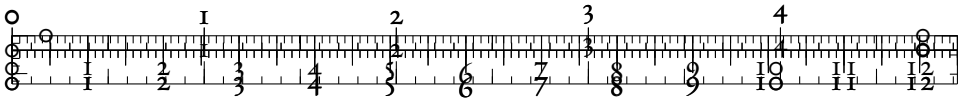
Figure 1.1: "Authentication and authorization" use case diagram

1.1 Wireframes

Use case diagrams provide us with an in-depth technical view of the possible interactions between our application and the user. However, they are too abstract and they fail in helping us imagine the format of the application and its interface. Furthermore, this abstraction prevents us from noticing the missing components of our architecture. Therefore, we use wireframes to better understand the User Interface (UI) and to look for any shortcomings in our analysis.

Wireframes are simple visual guides representing the skeletal framework of a website [3]. They depict the page layout or arrangement of the website's content, including interface components and navigational systems, as well as how they operate together. Since the major focus is on functionality, behavior, and content prioritization, the wireframe usually lacks typographic style, color, or images [2].





Acronyms

CmRDT Commutative Replicated Data Type

CMS Content Management Software

CRDT Conflict-free Replicated Data Type

CvRDT Convergent Replicated Data Type

DOM Document Object Model

FDD Feature-Driven Development

JSON JavaScript Object Notation

MVC Model-View-Controller

MVVM Model-View-ViewModel

OT Operational Transformation

P2P Peer-To-Peer

RBAC Role-Based Access Control

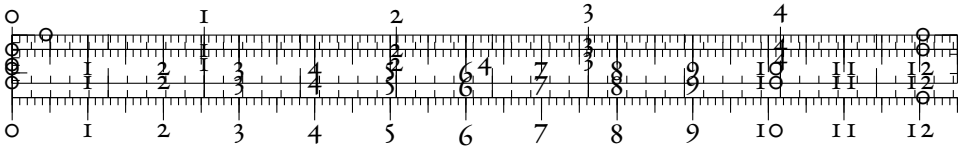
RDMBS Relational Database Management System

SaaS Software as a Service

SDK Software Development Kit

SSPL Server Side Public License

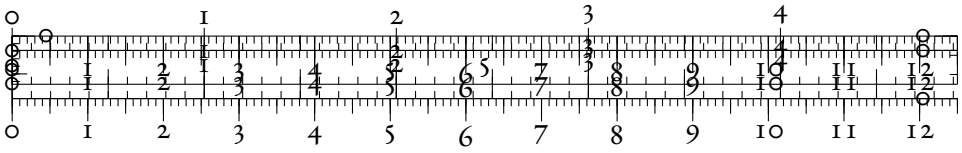
UI User Interface

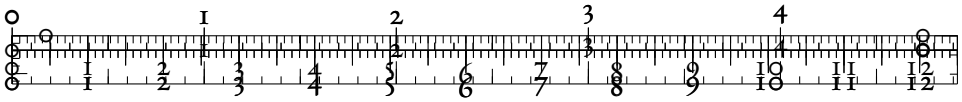


UX User Experience

WAI-ARIA Web Accessibility Initiative – Accessible Rich Internet Applications

WOOT WithOut Operational Transformation

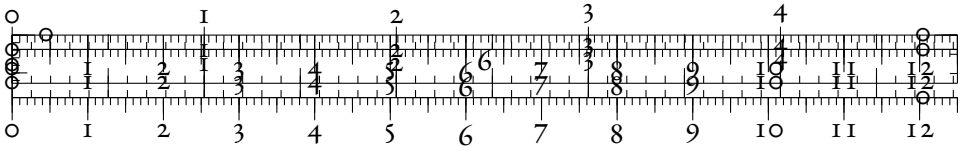


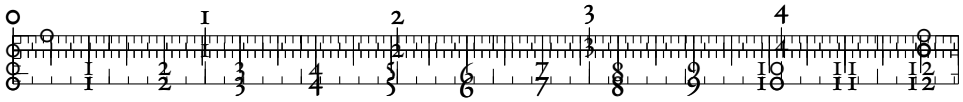


Glossary

cacheable A cacheable response is an HTTP response that is stored to be retrieved and used later, saving a new request to the server [1].

polyfill A piece of code used to provide modern functionality on older browsers that do not natively support it [4].

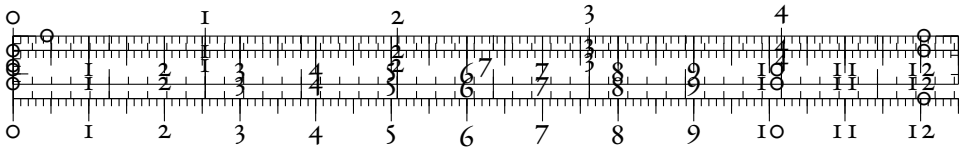




Bibliography

[1] *Cacheable - MDN Web Docs Glossary: Definitions of Web-related terms | MDN*. en-US. URL: https://developer.mozilla.org/en-US/docs/Glossary/cacheable (visited on 06/07/2021).

[2] J. J. Garrett. *The elements of user experience: user-centered design for the Web and beyond*. 2nd ed. Voices that matter. OCLC: ocn503049598. Berkeley, CA: New Riders, 2011. ISBN: 9780321683687.

[3] T. Gemayel. *How to wireframe*. en-US. URL: https://www.figma.com/blog/how-to-wireframe/ (visited on 06/04/2021).

[4] *Polyfill - MDN Web Docs Glossary: Definitions of Web-related terms | MDN*. en-US. URL: https://developer.mozilla.org/en-US/docs/Glossary/Polyfill (visited on 06/07/2021).