ADMIN WEB-PORTAL

Project: SGRANCh 2020 **Semester 2, 2020**

OBJECTIVE

The final product of this iteration is a fully functional Web-portal for the SGRACNZ's database for convenient work with the ability to make changes to existing data and creating new data when required. The Frontend has to be responsive with user-friendly interface. Backend has to provide quick and convenient transfer of data to the database. Search field and filters have to be implemented for convenient search. First task was to create working prototype with logical structure and all needed pages. Second task was to develop the pages starting with the most important such as Member pages and Organisation.

HISTORICAL BACKGROUND

Our team started with the fourth iteration of the project. Three previous iterations were focused on creating a database and the mobile application with APIs to interact with the database. Client needs this web-portal to update the information about organizations and users to make changes such as contact details and address, making the work easier for the current database Administrator. In the future, a huge amount of paper documents accumulated in the organization over decades of work will be transferred to the digital database using this web-portal.

PROJECT TECHNOLOGIES AND METHODOLOGIES USED

While working on this project, our team implement the methodology SCRUMBAN. The technologies were used:

Basecamp - Allowed the team to communicate and share documents within the team and also contact supervisors or client

GitHub - It let our team develop together on projects in comfort pace.

WampServer - Allowed us to work with web application with PHP and MySQL database.

phpMyAdmin - Used to handle the administration of MySQL over the Web.

SCOPE OF THE PROJECT

Prototype - to provide the client with prototype of the finished portal, so that later developers can rely on this during development
Technology stack - to approve with the client the necessary technology stack, find out what technologies were used previously.
Web-portal frontend – to create a new front end of the web-portal for the SGRACNZ Administrator
Web-portal backend – develop the connection to the Database, ensure the correct and fast operation of the web portal with the database with the ability to update and add data.
Testing - to conduct a number of various tests in order to detect errors.

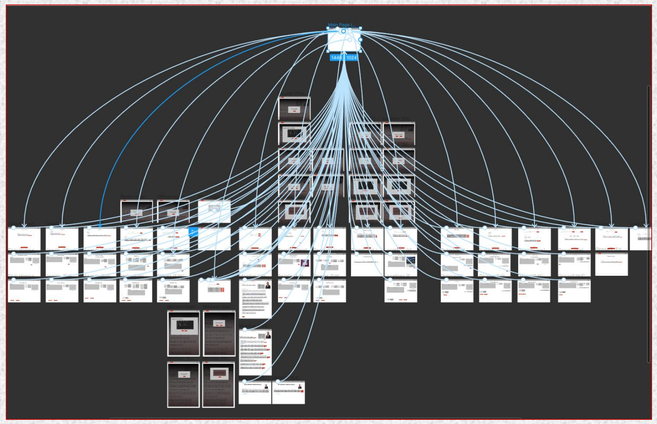
THE STUDENT PROJECT TEAM

SGRANCNZ team for that iteration was formed based on the needs of the project. The important skillset involved experience of working with databases and creating web applications was taken into account.

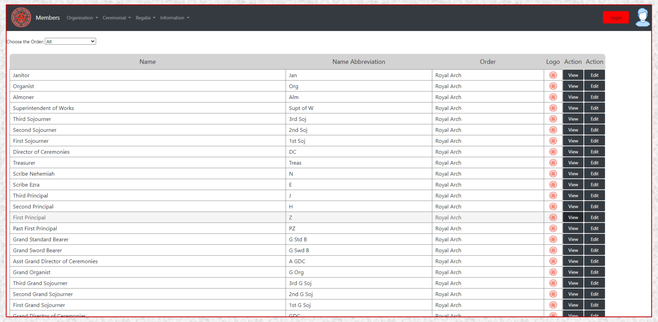
PROJECT TEAM MEMBERS

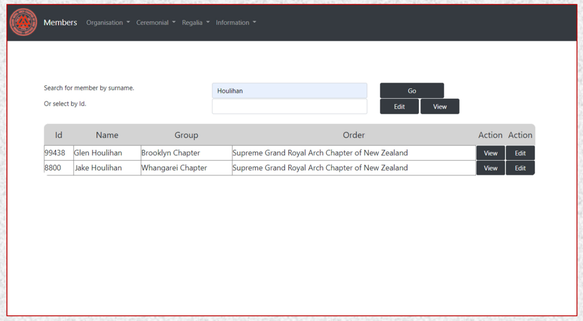
Andrei Tatarov - Project manager, Prototyping, Design
Jack Shiltsov - Full stack developer, DBA
Leem Dmello - Analyst, DBA

WEB-PORTAL PROTOTYPE



WEB-PORTAL PAGE EXAMPLE





OUTCOMES & CONCLUSIONS

As a result of the work, our team has successfully completed the main project's tasks. The prototype of the Portal was Developed and approved by the client. Was applied a responsive and user-friendly design of the web-pages. Was created fully working backend of the Web-Portal that meets the most important customer requirements from the whish list. Web-Pages allow users to filter the results of the search by using the dropboxes as well as using the traditional search field.

TECHNICAL DIFFICULTIES AND SOLUTIONS

1) Due to the large size of the project we focused our efforts on the 10 main pages that the client uses the most often. That task was successfully completed, and the client was happy with the results.
2) "Figma" tool was a completely new technology for our team, which we had to learn to create a fully working prototype.
3) To create the PHP code for generating the tables from the database was at first created solutions to work with the text files and added more and more complicated parts to connect and fully work with the Database.
4) A large amount of work and strict deadlines for design and development required wise planning and careful following the procedure. Every week were meetings with the client and every 3 days our team checked if we follow the SCOPE.
5) Due to the big amount of work which was done by previous teams and our start with the 4th iteration, we spent some extra time understanding data connections and the structure of the organisation.
6) The issue with WampServer – during the transfer of the data from the main Database to the local (for the testing). WampServer changed the uppercase of the tables to the lowercase. To solve that problem my.ini file (which is a configuration file) has to be changed manually.

RECOMMENDATIONS FOR FUTURE DEVELOPMENT

1) Finish the rest of the pages in the Database
2) Attach the API to use the maps in the "Organisation" View and Edit pages
3) Deploy the web-portal to the server
4) Adjust current or creation new tables in the Database may be needed for the purpose of the correct output of the pages.
5) Security measures should be implemented to allow the Admin to start using this Web-Portal
6) Refactoring the current PHP code with the aim of better performance