A screenshot of a cell phone

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Technical Report

VTTES-utility application

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# 1. Summary

This report will give a brief overview of the process of the inception, planning, creation and deployment of the virtual tabletop enhancement suite utility application (VTTES-util).

The function of the application is to organize an external library of virtual tabletop characters.

They are sourced from the website roll20.net, which is a free platform for tabletop roleplaying over the internet. Using the browser extension called Virtual Tabletop Enhancement Suite (VTTES), the characters from roll20 can be exported as .json files. It is these files this application use to present its content.

The client(s) are a group of aquaintences which wanted a tool to migrate the character data from one game to another.

The application uses the React framework to construct components and logic. The app is styled using Bootstrap 5, and SCSS.

For a database there is a connection to a Wordpress instance that is allowed to serve posts without authorization, but will also allow for full CRUD when logged in. The data is stored as a custom post type made with the Pods custom post type.

The design was developed in cooperation with the clients wishes, with me giving several points of advice to let them know of considerations they should make to comply with standard practices for UX and accessibility.

The application has been deployed for a while, with the client having had a positive experience with it. An instance of the application is hosted at <http://mortuus.no/vttes-util/>.

# 2. Body

## 2.1. Introduction

This report will provide an overview of the process and decisions I have made during the planning implementation and deployment of the application. I will give a short description of the technologies used, what was done, and any difficulties I had along the way.

## 2.2. Main section of report

### Week 1-3

The project started out with a brainstorm session, where I explored which technologies I was required to use. Setting up a list of possible applications and ideas. After asking around in my social circles about additional ideas or possible needs, the opportunity I chose emerged. A group of geographically seperated friends who play tabletop roleplaying games were on the lookout for an application to share a catalog of characters in a more intuitive way than just sending json files.

When I heard of this, I contacted the players as a group through Discord, and invited them to provide me with a list of desired features, ranked from most to least important. With this list I drew a basic wireframe, and a suggestions for a style guide was included. Later on there was a back and forth about the colors, with a discussion leading to the final style.

A list of which challenges I expected to encounter was set down, and kept in the back of my mind throughout the implementation process. This was useful not only to let me try to thing of solutions while not actively working on the project, but also to avoid having them build up near the end.

### Week 4-6

The coding part of the implementation started out with setting down the required folder and file structure. This was admittedly a noble attempt, and though the final structure is not entirely different, there were additions and edits along the way that required restructuring.

After the React app had been created, I started on the base functions I would need. This was the import/export to or from a file, saving to and loading from local storage, and the connection to a Wordpress instance, which would serve as an external database. I had some difficulties with the storage of a json format in a Wordpress post having it’s content formatted with paragraph elements, and though I tried to disable this behavior without adding additional plugins, I had not success. The solution came in the form of custom post types, which could be created easily using the Pods plugin.

After the functions were in place I started on the implementation of the React components to house them. I have tried to organize them in a satisfying and intuitive manner in the file structure. A solution I am not sure about is the imlementation of the actions as individual forms. It seemed to be necessary to achieve the desired “handleSubmit” effect with the context, but other alternatives may be more elegant.

I utilized Bootstrap 5 for the project. This was admittedly mostly for the grid classes that allows for easy layout, but the occasional input, color and component styling was also used. Along with Bootstrap, a set of SCSS files form the base of the styling. A \_variables.scss file is used to overwrite any bootstrap property that needed to be changed, and further components having their separate style sheet that gets consolidated in the App.scss, and compiled.

I tried to follow the BEM style of naming classes for styling. I found it interresting when structuring the \_character.scss in particular. This may not be the intended way of using BEM, but I found it funny.

Deployment was successful, except for a minor issue with the API not allowing requests through HTTPS. I have revised the endpoint to HTTP, for now, as I suspect there may be some issue with sertification.

## 2.3. Conclusion

I found the project fun. The way React makes JS functions that look like HTML was at times confusing, but I think the result was a great learning experience. The front end is a bit bare for my liking, and I intend to extend it’s functionalities in the future. A presentation of abilities in addition to attributes for example, would be cool.

# 3. References

* <https://www.npmjs.com/package/react-confirm-box>
* <https://wordpress.org/plugins/pods/>
* [Bootstrap 5](https://getbootstrap.com/docs/5.0/getting-started/introduction/)
* <http://mortuus.no/vttes-util/>
* <https://app.roll20.net/>
* <https://justas-d.github.io/roll20-enhancement-suite/>