Kelvingrover

Peter Macaldowie, Allan Petrie, Ruairidh Macgregor, Sam George

Scott Wilson Appreciation Society

# ABSTRACT

Kelvingrover is a concept website designed around the concept of visualizing GPX files in an easily-understandable format. The project centers primarily around Kelvingrove Park, Glasgow, and the routes stored for users’ viewing are located in and around the park. With accessibility being a key component of this project’s objectives, this was incorporated into the selection of the routes themselves. The goal of this was to balance both the content and overall objectives of the project in terms of accessibility for users; the site design is straightforward and plain to encourage users unfamiliar with technology to become familiar with it, while the routes are also geared towards being as accessible as possible. We also conducted evaluative techniques of the site some way into its development to get feedback on the usability and success of the website in meeting the goals of the project.

# INTRODUCTION

When considering the challenge of visualizing GPX files, we discussed numerous options for how best to suit the challenge to our own ideas in order to find a solution that not only met the goals of the exercise but would provide a prototype for potential further development towards a site with real-world uses and context. As such, we settled upon designing a site to better inform users of an area that we were somewhat familiar with ourselves – Kelvingrove Park.

This decision, paired with the choice to include routes geared towards walkers and cyclists, gave us the foundations for Kelvingrover. We expanded upon our initial concept once we had developed the site to the point of displaying routes from GPX files on a map on the site. This then evolved into visualization of the elevation of the routes. Finally, we decided to write our own GPX files in order to represent interesting landmarks around the park as waypoints that would be appropriately formatted for displaying on our Leaflet-based maps throughout the site. One of our first decisions was to keep the three visualizations as separate components of each page for demonstrative purposes. While they might be more appropriately layered in f

Provide an introduction which provides the context for your project, the motivation behind your design, and a general overview of your approach and results.

# Project Concept

Provide a detailed overview of the project concept and a description of the features.

## Implementation

Provide a technical overview of how the system is implemented. You may find it helpful to include diagrams providing an overview of the architecture.

## Peer Assessment

Provide a summary of the peer feedback you received and your response to the comments. For any comments that you have not incorporated into your final prototype, provide a rationale.

# Evaluation

Provide a detailed description of how you completed the evaluation of your prototype. You are expected to include a combination of quantitative and qualitative results.

## Results

The analysis of your evaluation should be presented clearly in its own section. Use subheadings if needed to organize your results.

# DIscussion

Provide a discussion of the results, including comments about future work and ways you might improve the design of your system.

# Conclusion

Provide a conclusion that summarizes your project.

# REFERENCES

You may find it helpful to include references to any material that has informed your design or your evaluation. Use citations as a way to support decisions you have made during the design and to support your approach to evaluating and analyzing your project.

1. **Wikiloc**
2. **Bootstrap**
3. **Leaflet**

**Columns on the last page should be of approximately equal length. Remove this line before submission.**