PathMapp Analytics

Overview
Google Analytics is an excellent tool for analyzing how users interact with websites. However, there is not a similar, fully implemented solution available for smartphone application developers. The two major platforms for smartphone application development are Apple (iOS) and Android (AndroidOS), each with their own unique languages and specific formats. A uniform software development kit must be made to provide developers with analytics regardless of the platform they choose to develop on.

Objectives
- Create a model for interaction between smartphone devices and a server
- Design and implement similar software development kits on Android OS and iOS
- Create the 'back-end' of the server, consisting of a database and a program to process incoming data.
- Create the 'front-end' of the server, which accesses the database as it is populated from the back-end's communication with active devices.

Approach
- By working with our APPEK sponsor, Jeff Farkas, we were able to establish the requirements needed to satisfy the implementation of PathMapp. We met weekly to discuss the interaction diagrams between the front-end, back-end, database, and devices.
- We also met twice a week with our professor, Max Fomitchev, who helped us by showing us additional requirements to collect from Jeff, such as how we could define 'real time' with the front-end being able to see their application being used live.
- We performed load testing on our server to ensure that it could handle multiple active connections, as well as a minimum of 2,000 idle connections.

Outcomes
- The sponsor has a solid foundation and basic implementation of the product, and will be able to continue development before deploying by an estimated date of June 2012.
- The product promises to provide a powerful analytics tool for mobile application developers.
- This product has the potential to provide an unprecedented tool in mobile application development.