

Large-Scale Web 2.0 Application for Travel Scheduling and Planning

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Overview:

Web 2.0 technologies enable us to develop highly-interactive web applications which are scalable and fault-tolerant. The goal of this project is to construct a large-scale database of a rail network consisting of over 6000 nodes (stations) along with corresponding trains and their time tables. Once the database has been built, the team shall build a highly interactive (intellisense-enabled) web application that allows users to run queries on the database such as:

- a. What are the most connected pairs of nodes?
- b. What is the best way to travel from node A to node B based on criteria such as travel distance, travel time, number of change overs, etc.?
- c. What is the most travelled by node?
- d. What is the least travelled by node?
- e. etc.

Technologies:

The team is encouraged to use free open source architectures such as hadoop (Apache) to build this solution. Most successful large-scale internet companies such as Facebook, Twitter, Google, etc. run on open source technologies. At the end of this project, students would be exposed to the fundamentals of building a Web 2.0 application using current open source technologies that servers thousands of potential users. Java is the preferred OO language for coding. Students will also be exposed to routing algorithms and will be implementing some of the popular ones.

Resources:

<http://hadoop.apache.org/>

What to expect during the project:

1. Heavy coding from all the team members
2. Practising agile development approach
3. Testing and deployment on server
4. Getting up to speed with AJAX technology, Java Enterprise technologies, etc.
5. Regular mentor meetings and knowledge sessions
6. Gaining know-how in building applications using cutting-edge technologies