Nirvana

CSC408 - H015

Who we are:

- Mark Maglaque (Backend Developer)
- Dylan Durdle (Backend Lead)
- Yani Ioannou (Client Lead/Technical Advisor)
- Ashish Kaila (Test Lead)
- Sandy Lam (Test Developer)
- Gilles Lising (Project Manager)

Experience

Academic

- all 4th year students
- background includes
  - teaching assistant work for
    - 385
      - concurrency systems
    - 309 (3 times)
      - Tomcat, server development
    - 228
      - file structures
    - 209 (2 times)
      - software tooling
    - 148
      - algorithm development
    - 108 (3 times)
      - java development

Work (co-op, PEY, etc)

- IBM Canada (4 times)
  - Java development
  - Functional, translation, integration testing
  - WebSphere server development
  - Linux kernel development and test
- OPG Inc. (4 times)
  - Application server development
- Platform (2 times)
  - Distributed system development
- Protana Inc

Features

- Maximum # of lines per file:
  - 2,147,483,648
- Maximum # of concurrent users:
  - 2,147,483,648
- Maximum # of open documents at once:
  - 9,223,372,036,854,775,807

  * specifications are limits that may not be obtainable on CDF due to the lack of resources

Features (continued)

- Performance:
  - System performance is not affected by the number of documents open or the number of concurrent users.
  - Each open document is isolated from each other and managed separately. Therefore, integrity and performance is not compromised.

Features (continued)

- Security:
  - SSL enabled. All communication between the client to the Java Web Service and the Java Web Service to the Backend Service can all SSL enabled. A non-SSL solution is also available.
  - Isolated backend service for each group. Each group will receive their own running backend service.
  - User IDs. Only valid assigned users will be able to use the service.

Features (continued)

- Concurrency:
  - Expiring line locks accompany every action.
  - Document locks are used for operations that need to occur in isolation (i.e. initial document upload).

Methods Implemented

- loadDocument()
  - Upload and open the document for users to interact with.
- updates()
  - Receive a list of recent updates to the document.
- getLine()
  - Receive a single line of the document.
- getLocksAndUIDs()
  - Receive a list of all line locks and their owners of a document.

Methods Implemented (cont.)

- saveDocument()
  - Download a copy of the open document.
- getDocument()
  - Get a reference to the document.
- closeDocument()
  - Close the document on the backend.
- browse()
  - View a list of all open documents.

Methods Implemented (cont.)

- lockLine()
  - Lock the line for exclusive editing.
- unlockLine()
  - Release a lock before it times out.
- closeDocument()
  - Close the document on the backend.
- updateLine()
  - Update the line with the replacement line.

Methods Implemented (cont.)

- insert()
  - Mimics copy-and-paste operation.
- delete()
  - Mimics cut operation.
- addLine()
  - Add one or more lines to a document.
- deleteLine()
  - Delete one or more lines in a document.

Thank You

- http://www.cdf.utoronto.ca/~c2durdle

After Nov 7, this site will contain detailed documentation regarding our developed services.