

## CS286A Metadata Repository: Demo

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### Sample Repository Content

**05/01/2015**

<u>File</u>	<u>Metadata</u>
a.java	<b>lines: 500, owner: "Enrico", size: 1024</b>
b.java	<b>lines: 1000, owner: "Enrico", size: 1024</b>
a.csv	<b>rows: 5000, cols: 5, owner: ["Fei", "Jimmy"], size: 5684120</b>
Sailors1	<b>sailors: 100, owner: "Joe", size: 2048</b>
Sailors2	<b>sailors: 50, boats: 20, owner: "Joe", size: 584</b>

**05/07/2015**

<u>File</u>	<u>Metadata</u>
a.java	<b>lines: 750, owner: "Enrico", tested: "true", size: 1654</b>
b.java	<b>lines: 2500, owner: "Joe", tested: "false", size: 2556</b>
a.csv	<b>rows: 5000, cols: 5, owner: ["Fei", "Jimmy", "Enrico"], size: 5684120</b>
Sailors1	<b>sailors: 4000, owner: "Joe", size: 4986204</b>
Sailors2	<b>sailors: 150, boats: 120, owner: "Joe", size: 2324</b>

# Sample Queries

## 1. Committing

First, let's use the namespace "demo":

```
namespace demo
```

Now, commit all the stuff:

```
commit 5/1/15 a.java {lines: 500, owner: "Enrico", size: 1024}  
commit 5/1/15 b.java {lines: 1000, owner: "Enrico", size: 1024}  
commit 5/1/15 a.csv {rows: 5000, cols: 5, owner:["Fei","Jimmy"] size: 5684120}  
commit 5/1/15 Sailors1 {sailors: 100, owner: "Joe", size: 2048}  
commit 5/1/15 Sailors2 {sailors: 50, boats: 20, owner: "Joe", size: 584}  
commit a.java {lines: 750, owner: "Enrico", tested: "true", size: 1654}  
commit b.java {lines: 2500, owner: "Joe", tested: "false", size: 2556}  
commit a.csv {rows: 5000, cols: 5, owner: ["Fei", "Jimmy", "Enrico"], size: 5684120}  
commit Sailors1 {sailors: 4000, owner: "Joe", size: 4986204}  
commit Sailors2 {sailors: 150, boats: 120, owner: "Joe", size: 2324}
```

## 2. Showing metadata

### Basic show

Show the current metadata for a.java:

```
show a.java
```

Show the metadata of a.java on 05/03/2015:

```
show 5/3/15 a.java
```

### Wildcards

Show the metadata of any file that has extension .java on 05/03/2015:

```
show 5/3/15 *.java
```

## 3. Querying metadata

### Basic find

Find any file that is currently owned by Joe:

```
find owner=Joe
```

Find any file that currently has size more than or equal to 1,000,000:

```
find size >= 1000000
```

Find any file that was owned by Joe on 05/03/2015:

```
find 5/3/15 owner=Joe
```

## Wildcards

Find any file that is owned by someone whose name starts with J:

```
find owner like J*
```

## Joins

Find any file that is currently owned by Joe and has size greater than 2504:

```
find owner = Joe and size > 2504
```

Find any file that has metadata key named "tested":

```
find tested like *
```

Complicated join:

```
find 5/2/15 owner != Joe and lines > 600 or sailors > 25 and sailors < 75 and  
boats < 50 and owner like *e or size > 1000000
```

## 4. Notes

The current version of metadata repo supports:

- **Operations:** or, and, like, <, >, <=, >=, =, !=
- **Values:** string, integer, float
- **Wildcards** are UNIX-style glob: \*, ?
- **Time format:** "MM/dd/yy" or ms since epoch