



Computer Science E-75

Building Dynamic Websites

Harvard Extension School

<http://www.cs75.net/>

Lecture 4: SQL

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Grades

3 x correctness:	poor (1)	fair (2)	good (3)	better (4)	best (5)
2 x design:	poor (1)	fair (2)	good (3)	better (4)	best (5)
1 x style:	poor (1)	fair (2)	good (3)	better (4)	best (5)

XPath

`/child::lectures/child::lecture[@number='0']`

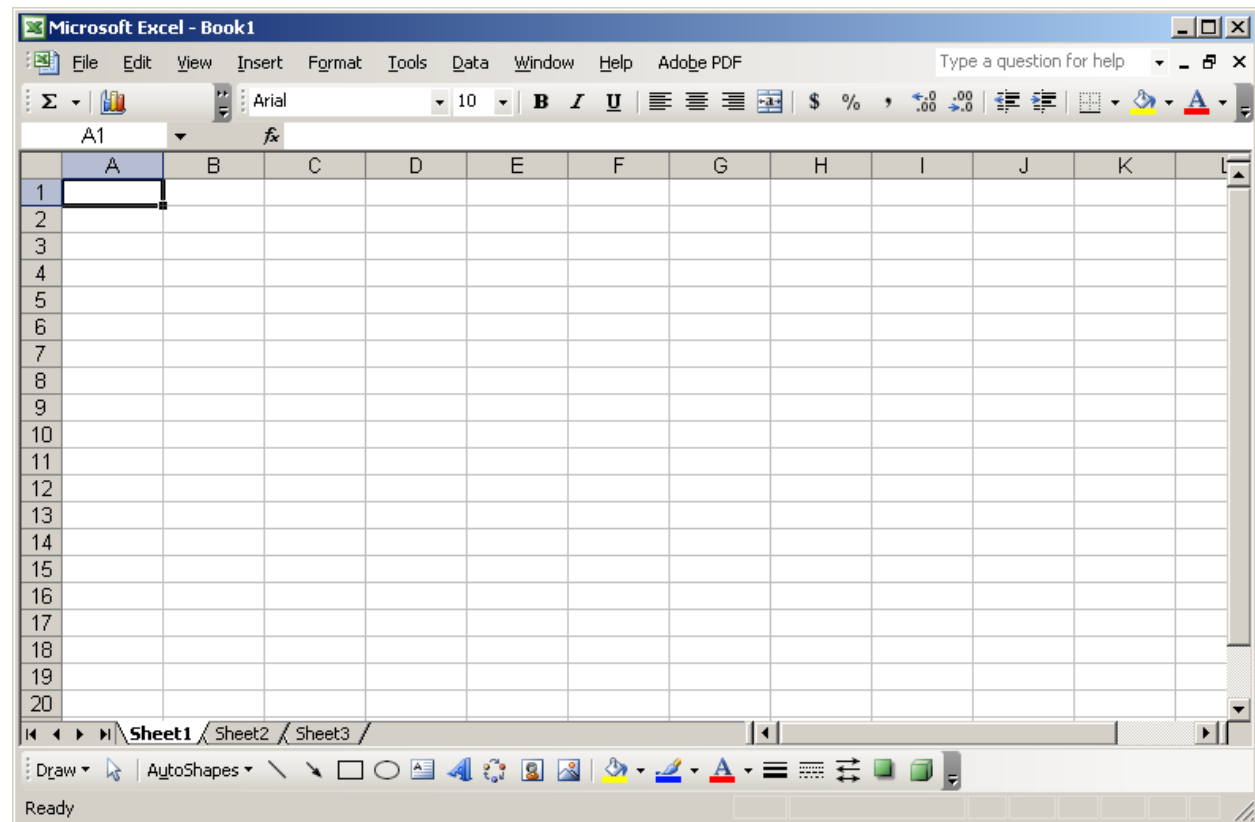
The diagram illustrates the components of the XPath expression `/child::lectures/child::lecture[@number='0']`. Brackets are used to group parts of the expression as follows:

- A bracket under `/child::lectures` is labeled **step**.
- A bracket under `/` is labeled **axis**.
- A bracket under `child::lecture` is labeled **node test**.
- A bracket under `[@number='0']` is labeled **predicate**.
- A large bracket under the entire expression `/child::lectures/child::lecture[@number='0']` is labeled **location path**.

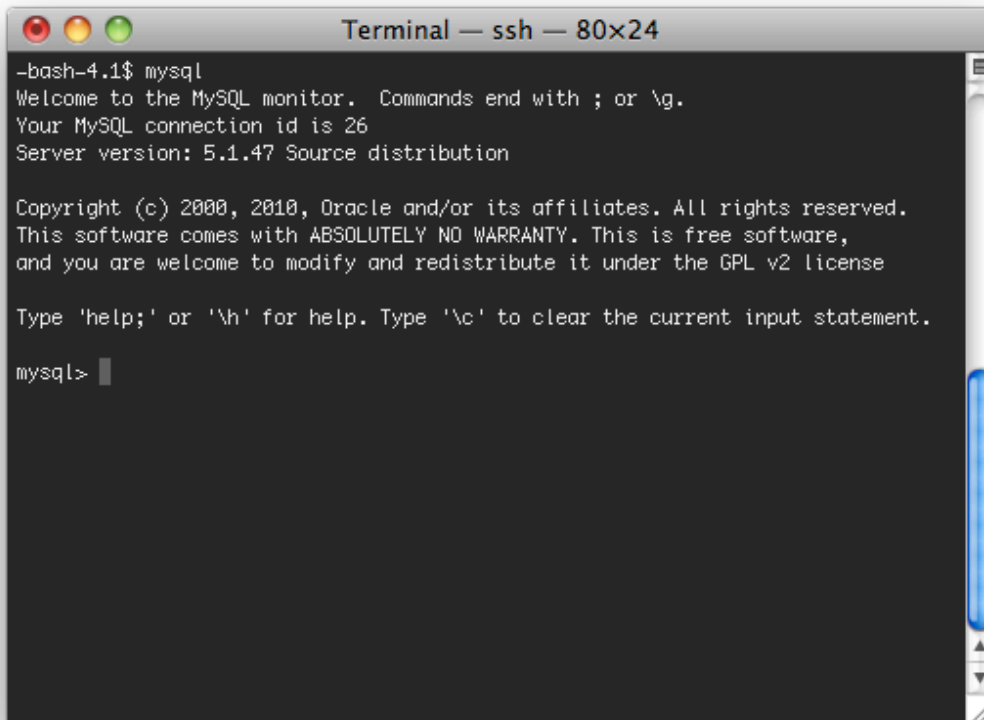
Databases

- CSV
 - `fgetcsv`, `fputcsv`
- XML
 - SimpleXML
- MySQL
 - `mysql`, `mysqli`
- SQLite
 - PDO
- ...

Relational Databases



MySQL

A terminal window titled "Terminal — ssh — 80x24" with a dark background and light text. The window shows the output of the command "mysql" entered in a shell. The output includes a welcome message, connection ID, server version, copyright notice, and license information. The prompt "mysql>" is visible at the bottom.

```
-bash-4.1$ mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 26
Server version: 5.1.47 Source distribution

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

phpMyAdmin

The screenshot shows the phpMyAdmin 2.11.4 web interface running in Mozilla Firefox. The browser's address bar displays the URL `http://cs75.net/phpmyadmin/`. The interface is divided into several sections:

- Localhost Information:**
 - Server version: 5.0.45-community
 - Protocol version: 10
 - Server: Localhost via UNIX socket
 - MySQL charset: UTF-8 Unicode (utf8)
 - MySQL connection collation: utf8_unicode_ci
- Configuration and Settings:**
 - MySQL client version: 5.0.45
 - Used PHP extensions: mysql
 - Language: English
 - Theme / Style: Original
 - Font size: 82%
- Navigation and Tools:**
 - Create new database: No Privileges
 - Show MySQL runtime information
 - Show MySQL system variables
 - Processes
 - Character Sets and Collations
 - Storage Engines
 - Databases
 - Export
 - Import
 - Log out
- Help and Links:**
 - phpMyAdmin documentation
 - phpMyAdmin wiki
 - Official phpMyAdmin Homepage
 - [ChangeLog] [Subversion] [Lists]

The interface includes a sidebar with navigation icons and a footer with the phpMyAdmin logo and version information.

SQL

- CREATE
- ALTER
- DROP

- SELECT
- INSERT
- UPDATE
- DELETE

- . . .



MySQL

<http://dev.mysql.com/doc/refman/5.1/en/>

Authentication

Log In

Please provide your username and password for cs75.net.

Username:

Password:

keep me logged in until I click **log out** atop page

Indexes, Constraints

- PRIMARY KEY
- INDEX
- UNIQUE
- FULLTEXT



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