

Music & the Internet

MUMT 301

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Plan

- Midterm review
 - Firebug/Firefox debugger
- Assignment review
- Next assignment
- Final project
- Web Services
- APIs

- Potential final projects:
 - Substantial music composition (20-30 min) strictly using web resources with substantial write up (2-3 pages)
 - Statistical / historical analysis of music industry based on web-based data
 - Music recommendation site
 - Music playlist maker

Web Services

- A set of platform-independent exposed APIs which can be used from remote servers over the Internet.

Web Services

- A set of platform-independent Application Programming Interfaces (APIs) available over the Internet
- Query formats
 - SOAP
 - XML-RPC
 - REST
- Results formats
 - XML (Extensible Markup Language)
 - JSON (JavaScript Object Notation) (download JSON viewers for your browser)
 - <http://json.org/example.html>
 - <http://jsonview.com/example.json>

SOAP

- Formerly known as Simple Object Access Protocol
- Used for communication between applications
- A format for sending messages
- Uses XML as the message format
- HTTP (e.g., GET, POST) is often used as message transport
- Language and platform independent
- “a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment.”

XML-RPC

- RPC: Remote Procedure Call
- Used for communication between applications
- A format for sending messages
- Uses XML as the message format
- Precursor to SOAP
- Simpler than SOAP

REST

- REpresentational State Transfer
- Message format can be: XML, JSON, HTML, plain text, etc.
- Language and platform independent
- Uses HTTP

JSON

- JSON (JavaScript Object Notation)
- <http://json.org/example.html>
- Download JSON viewers for your browser
- <http://jsonview.com/example.json>

API sites

- last.fm: <http://www.last.fm/api>
- Twitter: <https://dev.twitter.com/>
- Google Maps: <http://code.google.com/apis/maps/documentation/javascript/>