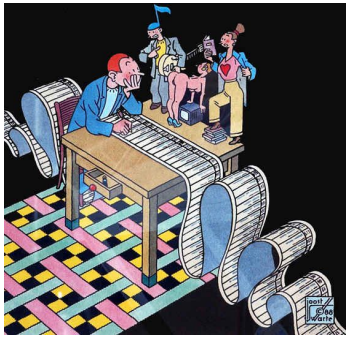

Music Lists Project

Upgrading Muzieklijstes.nl to **5★ Linked Data**

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SEMAKU

de Bibliotheek NOBB

Cubiss

JouwWeb

Introduction

What are music lists?

- Music lists are (typically) about albums (not singles)
- Compiled by musical professionals
- Mostly once a year
- Usually published in December
- And sometimes during the year (for instance the best soul albums of all time)
- Sources: musical periodicals, newspaper incidentally, the internet
- Countries: the Netherlands, Belgium, UK and the USA
- Is a curated selection (e.g. no lists from Poland, Germany or Hungary)

How is the data gathered?

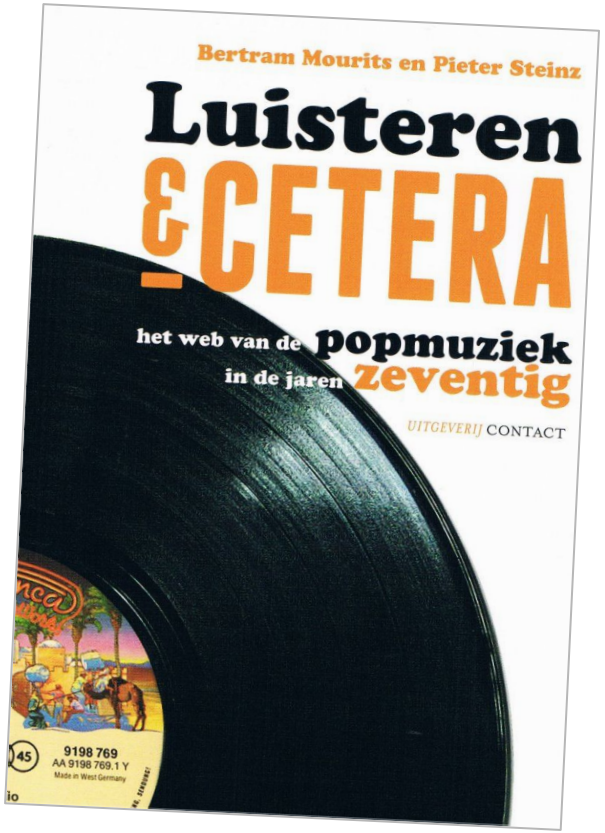
- Hans buys or obtains a copy of publication
- Manually enter relevant data in an Excel-sheet
- From there data for a list is converted into a static HTML page
- Lists captured dating back to 1970

Three kinds of lists

1. **gp** - lists with no order, therefore they are presented in **alphabetical order** (on the name of the group OR the last name of the artist - for instance Bowie, Cash or Dylan and not David, Johnny or Bob) (**gp** = geen positie/no position)
2. **pos** - lists where **number 1 is 'better' than number 50** (**pos** = position)
3. **ak** - lists where it is possible to calculate how many individual list-makers voted for a specific record and on which position (mostly 1-10 or 1-20) (**ak** = aantal keren / number of times)

List 1 - gp - geen positie - alphabetical order

- At the moment: 450 lists
- An unordered list of albums
- Usually presented in some sorted order e. g. by artist name, or album title



Example static HTML page

(HvD, zaterdag 26 november 2011)

1	De master of ceremony op trompet	
Miles Davis	**Bitches brew**	**1970**
Miles Davis	Birth of the cool	1949
Miles Davis	Kind of blue	1959
Miles Davis	Miles in the sky	1968
Miles Davis	Pangaea	1975
Miles Davis	Sketches of Spain	1959
Miles Davis	You're under arrest	1985
Louis Armstrong	The complete Hot five and Hot seven recordings	2006
Dizzie Gillespie	School days	1951
Charlie Parker	Jazz at Massey hall	1953
Sun Ra	Sound of joy	1957
James Brown	Live at The Apollo, october 24, 1962	1963
Betty Davis	Betty Davis	1973
Sly and the family Stone	Life	1968
Grateful dead	Anthem of the sun	1968
Jimi Hendrix	Are you experienced?	1967
Carla Bley	Dinner music	1977
Bill Evans	Portrait in jazz	1959
Jon Hassell	Fascinoma	1999

List 2 - pos - ordered lists

- At the moment: 850 lists
- Position number 1 is ‘better’ than 50
- Easy to handle
- E.g. Kerrang best of 2014

13

Ty Segall
Manipulator
Drag City

After several years firing off in myriad directions on countless releases and side-projects, San Francisco firebrand Segall focuses for a breakthrough album fusing freakbeat psychedelia with buzz-toned garage-punk and a prodigious pop sensibility. Light on its feet and heavy on tunes, thrills and noise, *Manipulator* announces Ty's time as now. *SC*

Standout track: The Faker

12

Caribou
Our Love

11

Sharon Van Etten
Are We There
Jagjaguwar

Love and confessional songwriting are dangerous games: on her fourth album, Van Etten at least wins one of them. Catharsis without purge overkill, *Are We There* finds the Brooklyn-based singer mapping out complicated lives, between coordinates of violent despair and dazed hopefulness. A trip to the dark places that never loses the line of the songs. *VS*

Standout track: Nothing Will Change

10

9

FKA Twigs
LP1
XL

In 2014, Twigs gigs were intro'd with all of Eno-Fripp's *No Pussyfooting*, setting out the challenging territory Gloucs-born avant-R&B starlet Tahliah Barnett was to inhabit. Her breathy crystal tones, high-wire quirk-attack and grimy insect beats unfolded in tough modern tales of exposure, sex and violence. All this and dancing, too. *DE*

Standout track: Two Weeks

8

Damon Albarn
Everyday Robots
Parlophone

Not quite the intimate

7

Julie Byrne
Rooms With Walls And Windows
Orindal

The first long-playing collection from this Buffalo, New York singer-songwriter was possibly the quietest release of the year, but also one of the most lasting, her softly-sung acoustic tales of love, loss and longing possessing the ability to warm rooms and break hearts. *AM*

Standout track: Holiday

6

Steve Gunn
Way Out Weather

5

St. Vincent
St. Vincent
Loma Vista/Republic

The transformative theme and cinematic quality that runs through St. Vincent's fourth album pegs it as her best: from the cover which sees Annie Clarke as a futuristic queen, to the paranoid, jittery funk of the music through to the characters who populate the album's greatest songs, drifting from illusion to illusion. It's an intense, unpredictable ride. *PE*

Standout track: Digital Witness

4

AMERICANA

COMPILED BY SYLVIE SIMMONS

1. **Carlene Carter** (above) *Carter Girl* (DECCA)
2. **Rosanne Cash** *The River And The Thread* (DECCA)
3. **Sun Kil Moon** *Benji* (CALDO VERDE)
4. **Howe Gelb** *The Coincidentalist* (NEW WEST)
5. **Dave Alvin & Phil Alvin** *Common Ground* (YEP ROC)

6. **Noah Gundersen** (above) *Ledges* (DUALTONE)
7. **Mary Gauthier** *Trouble & Love* (PROPER)
8. **Marc Olson** *Good-bye Lizelle* (GLITTERHOUSE)
9. **Sam Amidon** *Lily-O* (NONESUCH)
10. **Trampled By Turtles** *Wild Animals* (BANJODAD)

UNDERGROUND

COMPILED BY ANDREW MAI F

Example static HTML page

Samengesteld door de redactie. Bevat een top 50 + tien genrelijstjes.

(# 254 - januari 2015)

1	**Beck**	**Morning phase**	2014
2	War on drugs	Lost in the dream	2014
3	Sleaford mods	Divide and exit	2014
4	Jack White	Lazaretto	2014
5	St. Vincent	St. Vincent	2014
6	Steve Gunn	Way out weather	2014
7	Julie Byrne	Rooms with walls and windows	2014
8	Damon Albarn	Everyday robots	2014
9	Fka twins	Lp1	2014
10	Bug	Angels & devils	2014
11	Sharon van Etten	Are we there	2014
12	Caribou	Our love	2014
13	Ty Segall	Manipulator	2014
14	Elbow	The take off and landing of everything	2014
15	Sturgill Simpson	Metamodern sounds in country music	2014
16	Wild beasts	Present tense	2014
17	Angel Olsen	Burn your fire for no witness	2014
18	Kate Tempest	Everybody down	2014
19	Robert Plant	Lullaby and ... the ceaseless roar	2014
20	Manic street preachers	Futurology	2014
21	Aphex twin	Syro	2014
22	Future islands	Singles As & Bs	2014
23	Scott Walker & Sunn 0)))	Soused	2014
24	Mirel Wagner	When the cellar children see the light of day	2014

List 3 - ak - aantal keren / number of times

- At the moment 90 lists / Mainly OOR en Humo
- Difficult to handle
- A separate file in Excel
- Individual lists from roughly 50 music list-makers
- Mostly 10 records, sometimes 20
- Number 1 gets ten points, number 2 nine, number 3 eight etc.
- Excel calculates: ak (number of times mentioned and the total sum)

hebben een plaat uitgebracht die om dat mee te maken.' Best een enge gedachte.' Hall, Amsterdam

THEO PLOEG (OOR/ FRNKFRT/GONZO)

1. **LCD SOUNDSYSTEM** – The Long Goodbye
2. **THE ACID** – Liminal
3. **SWANS** – To Be Kind
4. **FLYING LOTUS** – You're Dead!
5. **VON SPAR** – Streetlife
6. **THE BUG** – Angels & Devils
7. **MARTYN** – The Air Between Words
8. **ANDY STOTT** – Faith In Strangers
9. **ROOIE WAAS** – Nu
10. **OBJEKT** – Flatland

KOEN POOLMAN (OOR)

1. **DAMON ALBARN** – Everyday Robots
2. **SISYPHUS** – Sisyphus
3. **APHEX TWIN** – Syro
4. **NAPOLIAN** – Incursio
5. **RUN THE JEWELS** – Run The Jewels 2
6. **ADRIAN CROWLEY** – Some Blue Morning
7. **REAL ESTATE** – Atlas
8. **ANDY STOTT** – Faith In Strangers
9. **ACTRESS** – Ghettoville
10. **NAOMI PUNK** – Television Man

MENNO POT (VOLKSKRANT/ SOUNDZ)

1. **THE WAR ON DRUGS** – Lost In The Dream
2. **SPOON** – They Want My Soul
3. **TYPHOON** – Lobi Da Basi
4. **BECK** – Morning Phase
5. **2562** – The New Today
6. **SHABAZZ PALACES** – Lese Majesty
7. **AVI BUFFALO** – At Best Cuckold
8. **TEMPLES** – Sun Structures
9. **ROBERT ELLIS** – The Lights From The Chemical Plant
10. **SUN KIL MOON** – Benji

ROOSMARIJN REIJMER (3VOOR12 3FM)

1. **CURTIS HARDING** – Soul Power
2. **SOHN** – Tremors
3. **CHET FAKER** – Built In Glass
4. **TEMPLES** – Sun Structures
5. **MOODYMANN** – Moodymann
6. **THOMAS AZIER** – Hylas
7. **THE WAR ON DRUGS** – Lost In The Dream
8. **TOGETHER PANGEA** – Badillac
9. **TYPHOON**–Lobi Da Basi
10. **OWEN PALLETT** – In Conflict

JORIS RIETBROEK (KICKING THE HABIT)

1. **THE WAR ON DRUGS** – Lost In The Dream
2. **SWANS** – To Be Kind
3. **AVI BUFFALO** – At Best Cuckold
4. **TY SEGALL** – Manipulator
5. **DAMON ALBARN** – Everyday Robots
6. **NOUVEAU VÉLO** – Nouveau Vélo
7. **AMEN DUNES** – Love
8. **ARIEL PINK** – Pom Pom
9. **THE NOTWIST** – Close To The Glass
10. **ST.VINCENT** – St.Vincent

Example static HTML page

Verscheen in nummer 12 (december 2014) onder de titel Oor's eindlijst van 2014

1	**War on drugs**	**Lost in the dream**	2014 26	173
2	Typhoon	Lobi da basi	2014 16	112
3	Spoon	They want my soul	2014 13	84
4	Temples	Sun structures	2014 12	63
5	Damien Rice	My favourite faded fantasy	2014 11	76
6	Swans	To be kind	2014 10	70
7	Moodymann	Moodymann	2014 10	59
8	Beck	Morning phase	2014 10	56
9	Alt-J	This is all yours	2014 9	49
10	Damon Albarn	Everyday robots	2014 9	48
11	Real estate	Atlas	2014 8	48
12	Flying lotus	You're dead!	2014 8	47
13	Avi Buffalo	At best cuckold	2014 7	51
14	St. Vincent	St. Vincent	2014 7	37
15	Fka twins	Lp1	2014 6	40
16	Acid	Liminal	2014 5	35
17	Jack White	Lazaretto	2014 5	35
18	Moss	We both know the rest is noise	2014 5	30
19	Sun kil moon	Benji	2014 5	29
20	Future islands	Singles As & Bs	2014 5	28
21	Aphex twin	Syro	2014 5	21
22	Caribou	Our love	2014 5	21
23	Kik	2	2014 5	19
24	2562	The new today	2014 5	19
25	Together Pangea	Badillac	2014 5	13
26	Reigning sound	Shattered	2014 4	32
27	Perfume genius	Too bright	2014 4	29

The “Muziekcanon”

- A canon is “*a collection or list of sacred books accepted as genuine*”
- Hans has selected 165 lists for the canon
- Lists that span a broader period, style or genre
- The register counts and delivers an aggregated list: the **muziekcanon**
- At the moment a list with 2211 records
- #1 Never mind the bollocks, here's the Sex pistols

Other features -

- # indicates an album that is not made by a single person or group
  - Tribute CD
  - Soundtrack
  - Compilation album with different artists
- In alphabetical lists these albums come first
- #s (soundtrack) and #trib (tribute album)

Excel input

Multiple worksheets

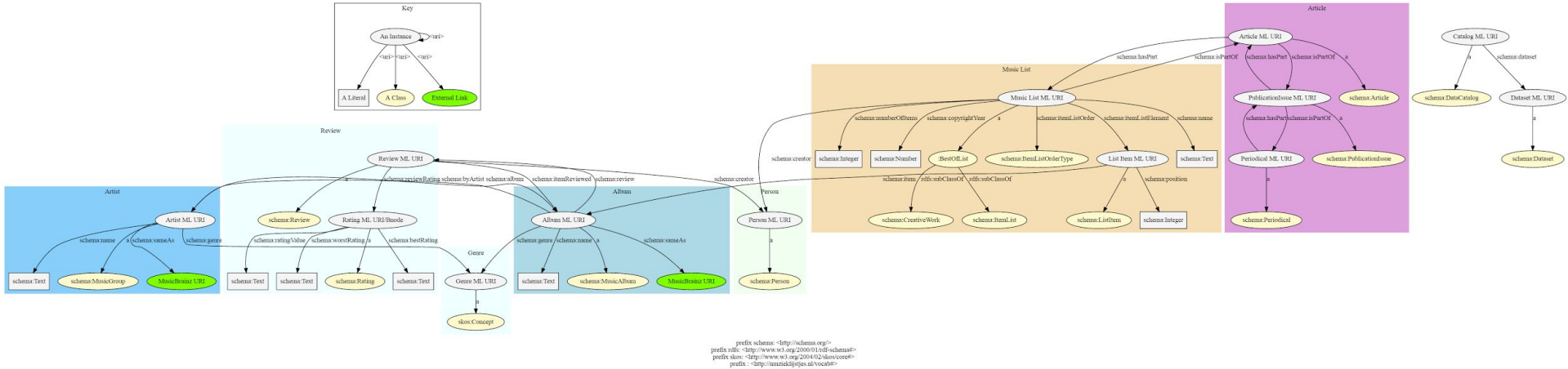
1. The main body
2. Explanation of the lists
3. Explanation of the sources
4. Explanation of the music list-makers, reviewers, people who participate
5. Lists of sections in magazines (Play, Play Reissue)
6. Separate file for OOR (ak-lists)

Priorities for a new system to manage the data

1. Unique record for artist and title
2. Manage music lists **and** reviews in magazines
3. Convert to RDF and publish as Linked Data
4. Make UI something like the current Register
5. Only the order has to be reversed (first show the lists and then the reviews)
6. Link with other data OR import data from other sources
7. Always refer to the static HTML-pages. Only …
8. These have to get a new template
9. Hans doesn’t mind stopping with Excel and start with a new system

Conversion to RDF

Music Lists Data Model



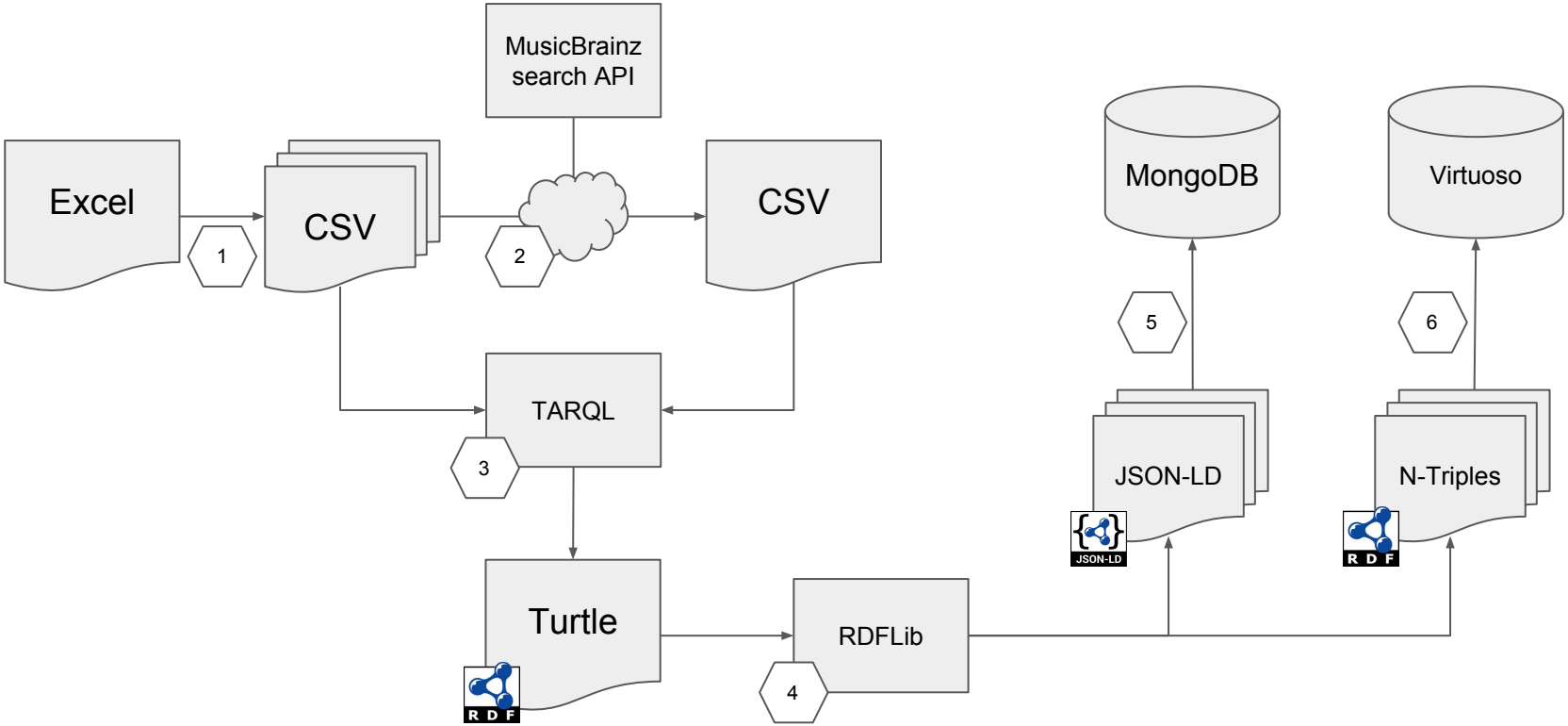
https://rawgit.com/jaw111/7e30adc2ad13d3300ffc/raw/muzieklijstjes.svg
https://gist.github.com/jaw111/7e30adc2ad13d3300ffc#file-muzieklijstjes-svg

ETL process

1. Convert XLS to CSV
2. Search for MusicBrainz matches via search API
3. Convert CSV to Turtle using TARQL
4. Convert TTL to JSON-LD and N-Triples using RDFLib
5. Upload JSON-LD to MongoDB
6. Upload N-Triples to Cubiss RDF store (Virtuoso)

Implemented in Python for use via Command Line Interface

Data flow ETL



Access to the data

- SPARQL endpoint http://data.cubiss.nl/sparql
  - Data is in the named graph <http://data.cubiss.nl/muzieklijstjes/>
- Example Linked Data URIs (results)
  - schema:List
    - http://data.cubiss.nl/muzieklijstjes/id/list/O23
  - schema:ListItem
    - http://data.cubiss.nl/muzieklijstjes/id/list/H13_cbr/pos1
  - schema:MusicAlbum
    - http://data.cubiss.nl/muzieklijstjes/id/album/Daft-punk_Discovery
  - schema:MusicArtist
    - http://data.cubiss.nl/muzieklijstjes/id/artist/Metallica

Some numbers

- 735620 RDF statements generated (results)
- Entities per type (results)
  - 4815 schema:List
  - 105525 schema:ListItem
  - 34990 schema:MusicAlbum
  - 15069 schema:MusicGroup
- schema:sameAs links generated (results)
  - 30443 music albums ← 87% matched
  - 13772 music groups (*but 12796 unique*) ← 85% matched

Generated schema:sameAs links

- Use MusicBrainz search API
  - Allows to search for albums by album name and artist name
  - Is rate-limited
- Returns matched albums including artist with a quality rating
- We use highest rated match above a minimum threshold
- Quality of matches
  - Good when input data is good
  - If album/artist name is inaccurate/ambiguous can lead to strange results
    - http://data.cubiss.nl/muzieklijstjes/id/album/Queen_Queen-rocks---volume-1
    - http://data.cubiss.nl/muzieklijstjes/id/album/Led-zeppelin_Led-zeppelin-1
    - http://data.cubiss.nl/muzieklijstjes/id/artist/Bob-Dylan

Music lists app

MEAN stack

MEAN is an acronym for ***M***ongo, ***E***xpress.js , ***A***ngular.js and ***N***ode.js

MongoDB - JSON document store

Express - server-side web application framework for web & mobile apps

AngularJS - client-side single-page application framework for web & mobile apps

Node.js - cross-platform runtime env for developing server-side web apps

http://mean.io/

AngularJS application HTTP request/response flow

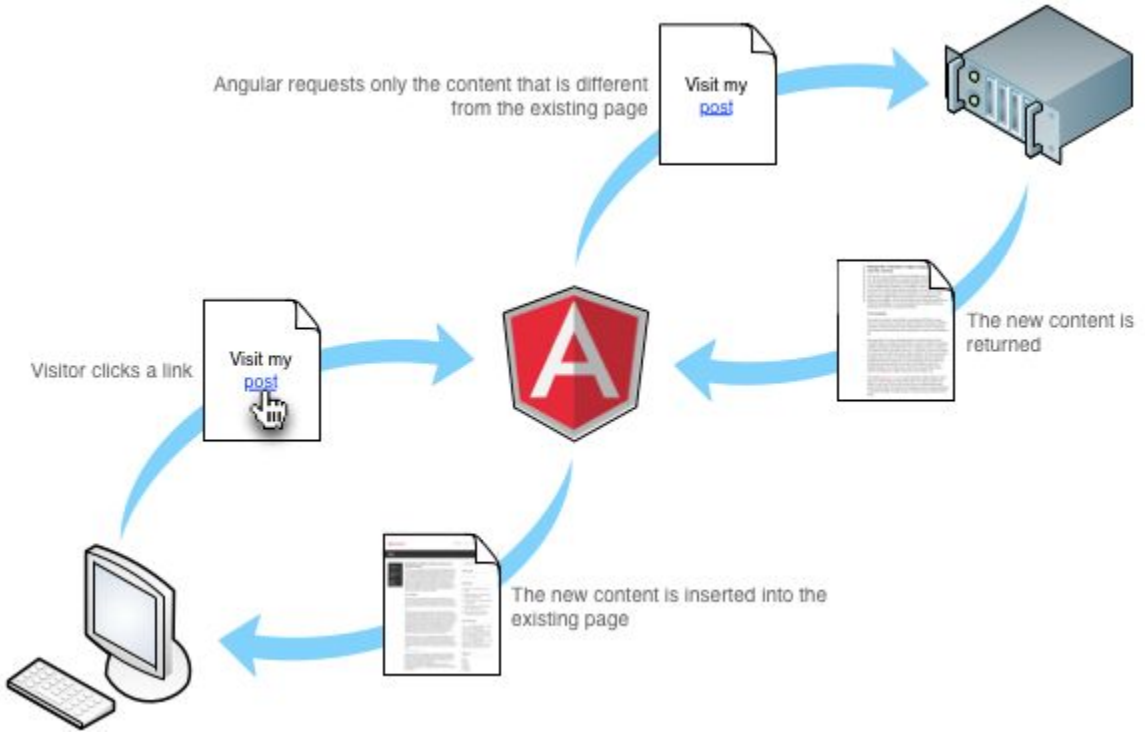
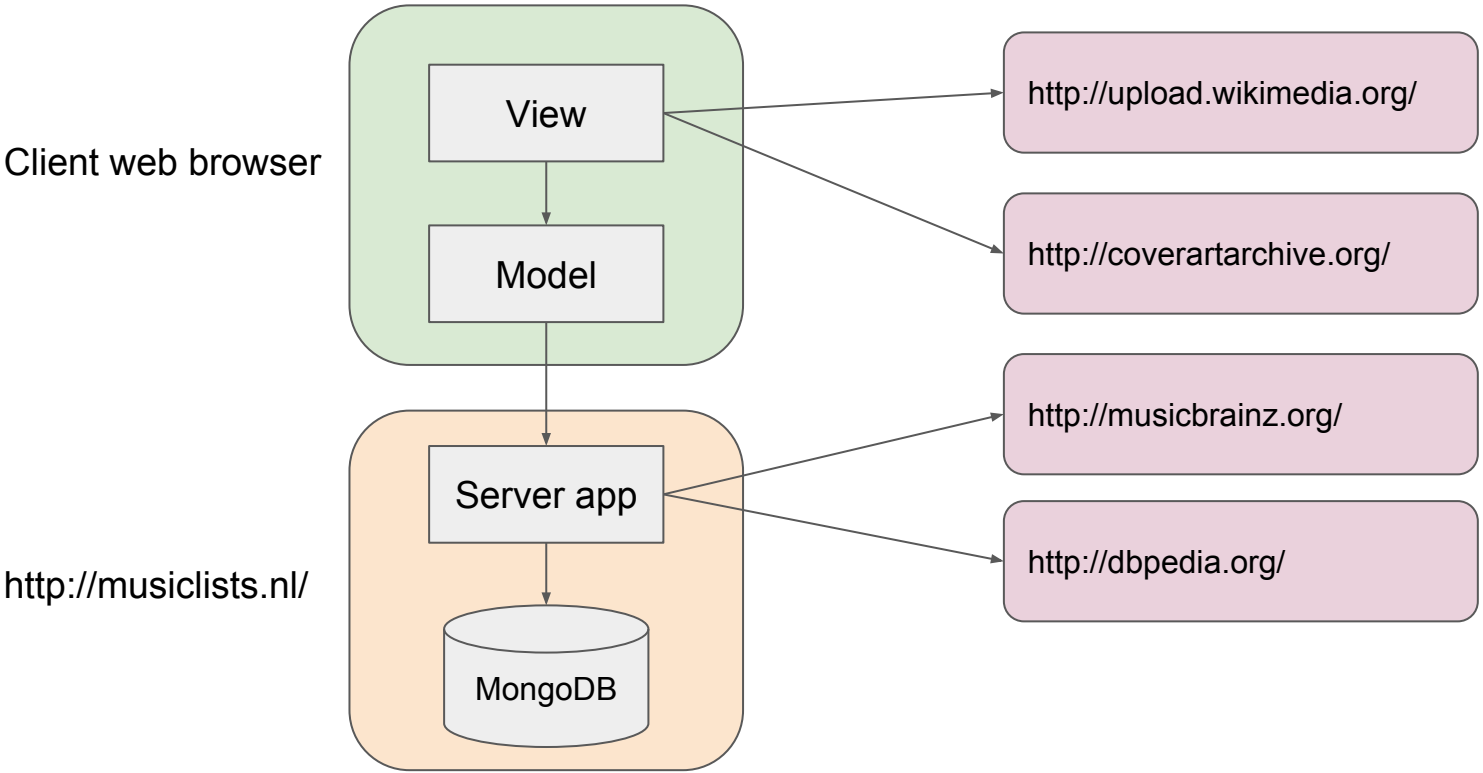
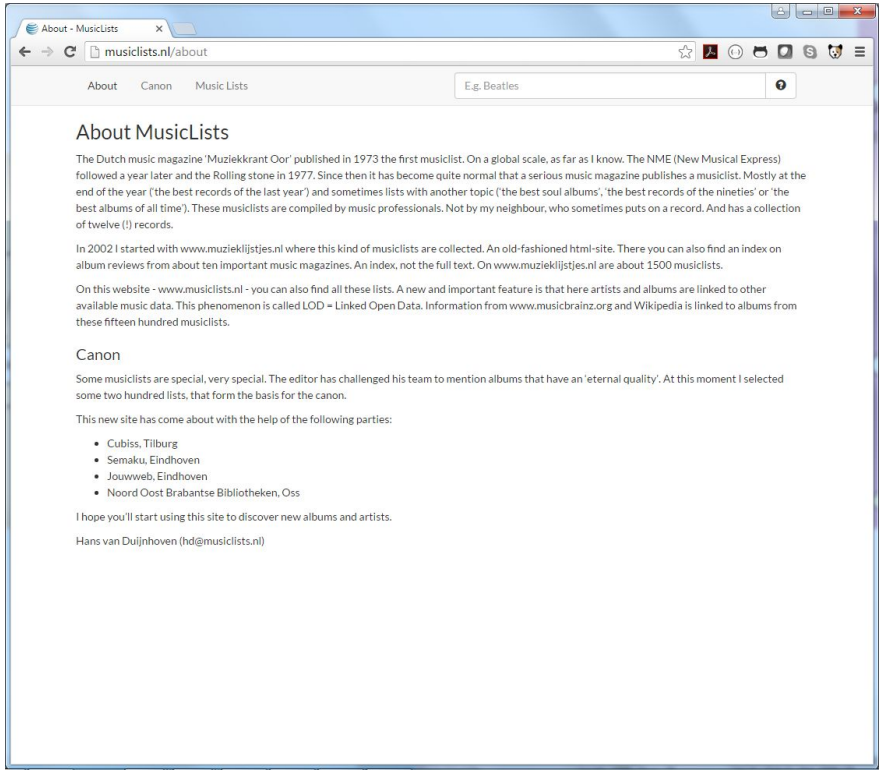


Image source: http://jackalstack.com/training/mindtree/Angularjs

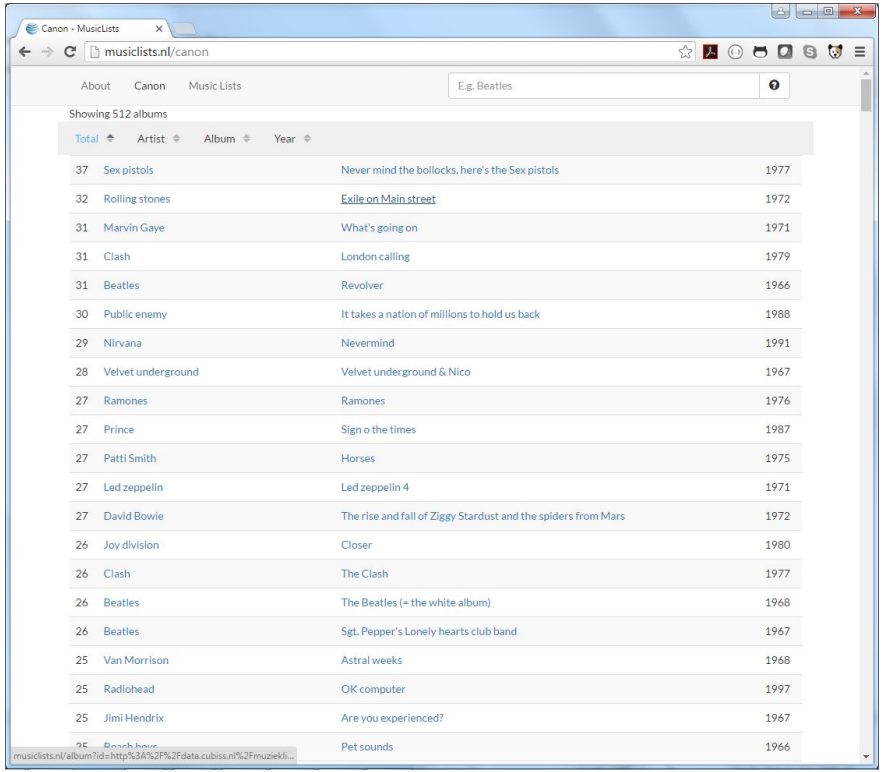
Application Block Diagram



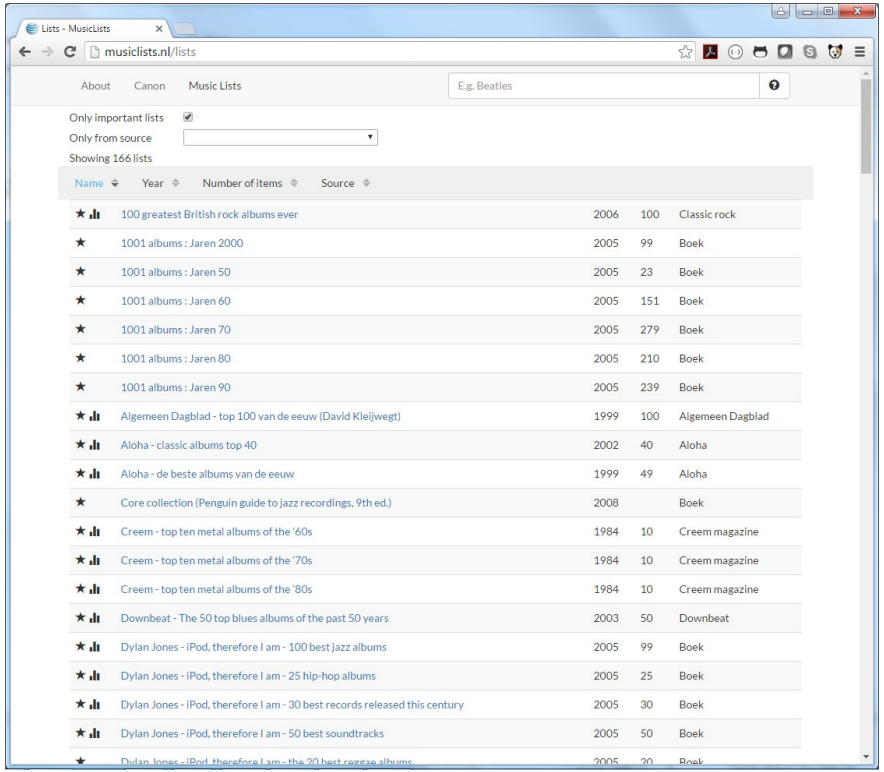
About page


About - MusicLists
musiclists.nl/about
About
Canon
Music Lists
E.g. Beatles
About MusicLists
The Dutch music magazine 'Muziekkrant Oor' published in 1973 the first musiclist. On a global scale, as far as I know. The NME (New Musical Express) followed a year later and the Rolling stone in 1977. Since then it has become quite normal that a serious music magazine publishes a musiclist. Mostly at the end of the year ('the best records of the last year') and sometimes lists with another topic ('the best soul albums', 'the best records of the nineties' or 'the best albums of all time'). These musiclists are compiled by music professionals. Not by my neighbour, who sometimes puts on a record. And has a collection of twelve (!) records.
In 2002 I started with www.muzieklijstjes.nl where this kind of musiclists are collected. An old-fashioned html-site. There you can also find an index on album reviews from about ten important music magazines. An index, not the full text. On www.muzieklijstjes.nl are about 1500 musiclists.
On this website - www.musiclists.nl - you can also find all these lists. A new and important feature is that here artists and albums are linked to other available music data. This phenomenon is called LOD = Linked Open Data. Information from www.musicbrainz.org and Wikipedia is linked to albums from these fifteen hundred musiclists.
Canon
Some musiclists are special, very special. The editor has challenged his team to mention albums that have an 'eternal quality'. At this moment I selected some two hundred lists, that form the basis for the canon.
This new site has come about with the help of the following parties:
Cubiss, Tilburg
Semaku, Eindhoven
Jouwweb, Eindhoven
Noord Oost Brabantse Bibliotheken, Oss
I hope you'll start using this site to discover new albums and artists.
Hans van Duijnhoven (hd@musiclists.nl)

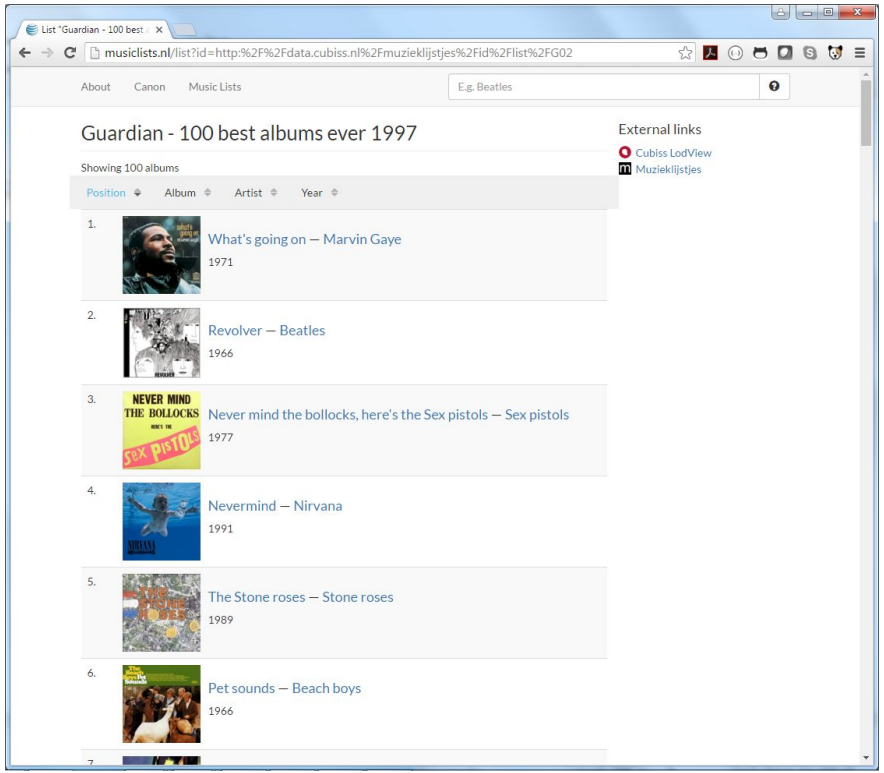
Canon page


Canon - MusicLists
musiclists.nl/canon
About
Canon
Music Lists
E.g. Beatles
Showing 512 albums
Total
Artist
Album
Year
37 Sex pistols Never mind the bollocks, here's the Sex pistols 1977
32 Rolling stones Exile on Main street 1972
31 Marvin Gaye What's going on 1971
31 Clash London calling 1979
31 Beatles Revolver 1966
30 Public enemy It takes a nation of millions to hold us back 1988
29 Nirvana Nevermind 1991
28 Velvet underground Velvet underground & Nico 1967
27 Ramones Ramones 1976
27 Prince Sign o the times 1987
27 Patti Smith Horses 1975
27 Led zeppelin Led zeppelin 4 1971
27 David Bowie The rise and fall of Ziggy Stardust and the spiders from Mars 1972
26 Joy division Closer 1980
26 Clash The Clash 1977
26 Beatles The Beatles (= the white album) 1968
26 Beatles Sgt. Pepper's Lonely hearts club band 1967
25 Van Morrison Astral weeks 1968
25 Radiohead OK computer 1997
25 Jimi Hendrix Are you experienced? 1967
Pet sounds 1966

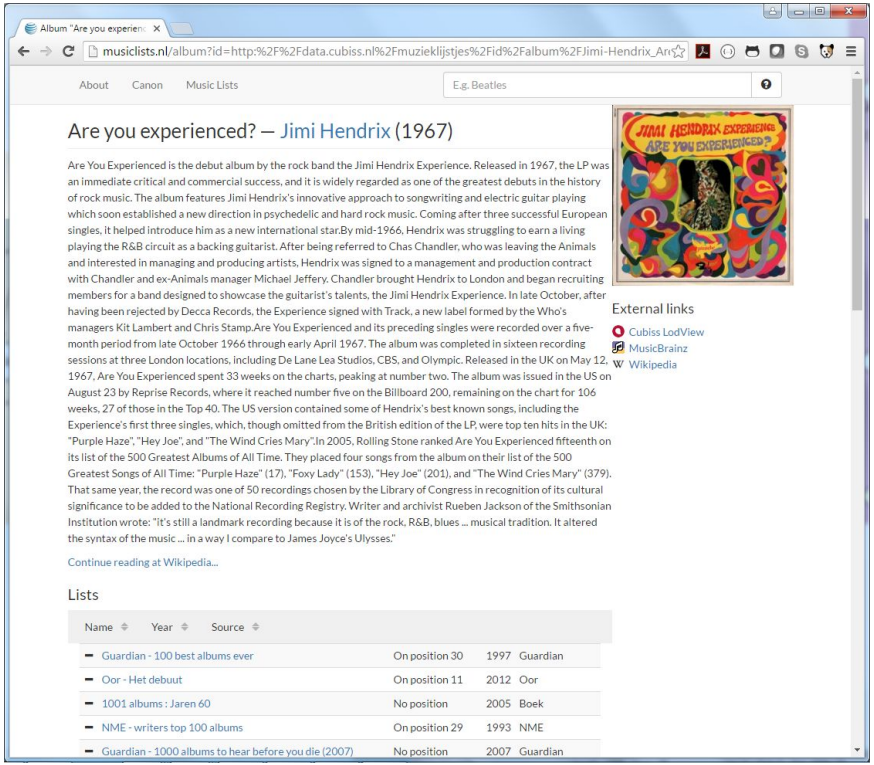
Music Lists page (list of lists)

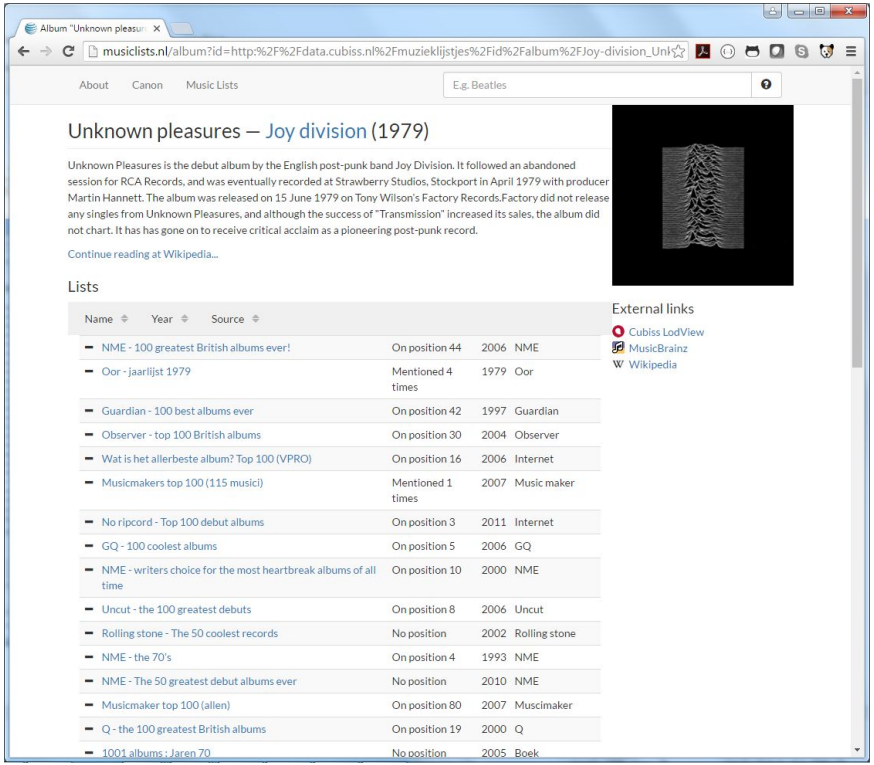


Music List page

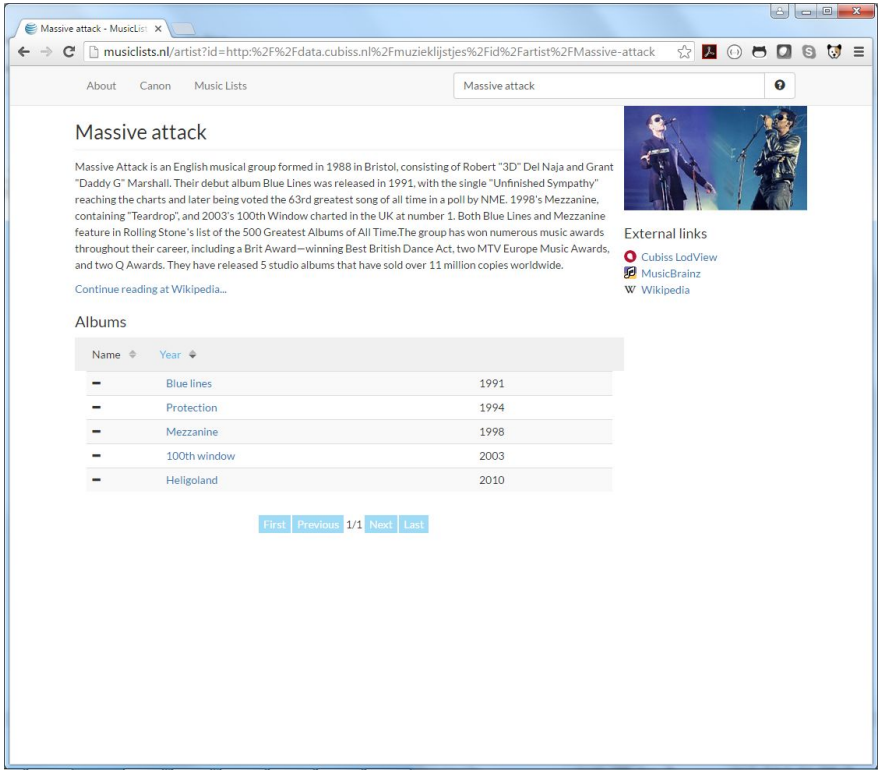


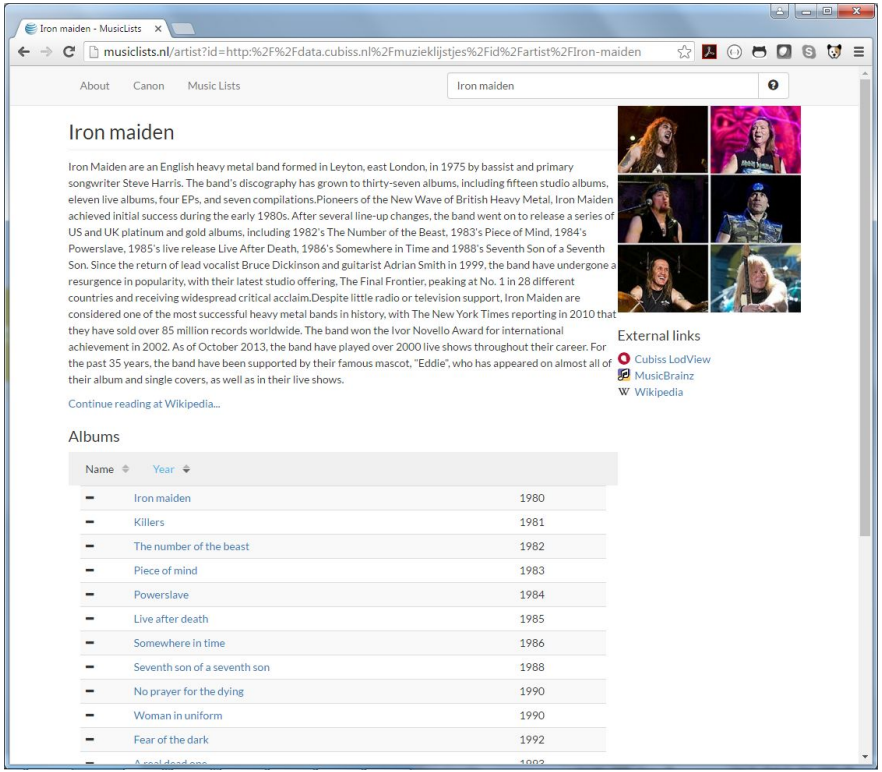
Music Album page





Music Artist page





http://musiclists.nl/

Try it yourself!

Project Review

Evaluation

- Project successfully delivered
- Slight delay due to personnel issue
- Time spent
  - Developer 30 days
  - Project lead 3 days

Possible next steps...

- Make GUI to edit the data
- Add an open licence
- Add reviews
- Use more data from external sources
- Improve/optimize application performance
- Improve data quality
  - Provide possibility for users to give feedback
  - Correct source data in Excel
  - Refine the matching algorithm
  - Add missing albums and artists to MusicBrainz