Recommender System Ceng History X

Aybüke Taşdirek
Asena Ok
Birant Altınel
Hacer Nihal Tarkan

Outline

- Problem Definition
- Motivation
- Benefits for Users and Stakeholders
- Existing Solutions
- Our Difference
- Used Technologies
- What We Have Done So Far
- Future Work

Problem definition

- Huge amount of music data
- Hardness of making decisions
- Hardness of reaching most accurate item

Motivation

- Beneficial for a huge audience
- Both an Industrial & Academic issue
- To provide accurate recommendations with a different approach
- Handling big data is popular

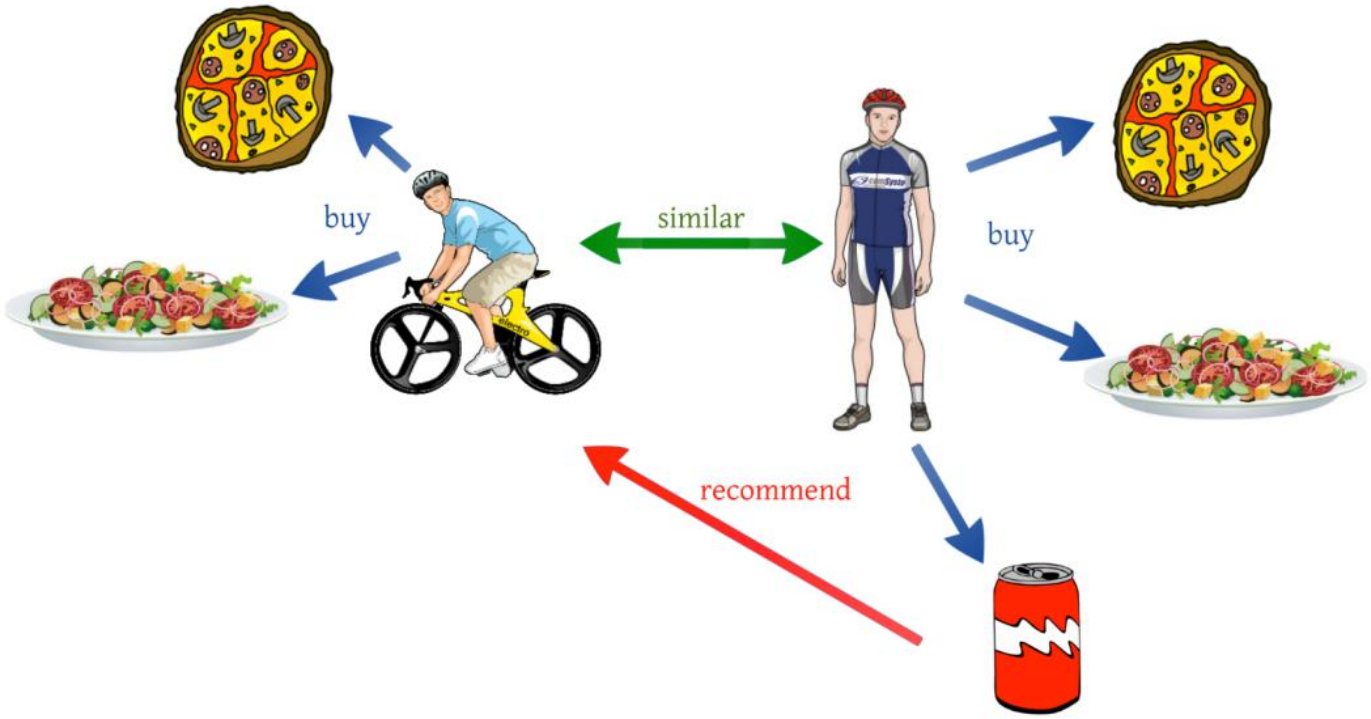
Benefits for users and stakeholders

- It reduces time spent on shopping
- Making the website of the product more attractive
- Increasing sales of product

Existing solutions

- Collaborative Filtering
- Content Based Recommendation

Existing solutions collaborative filtering



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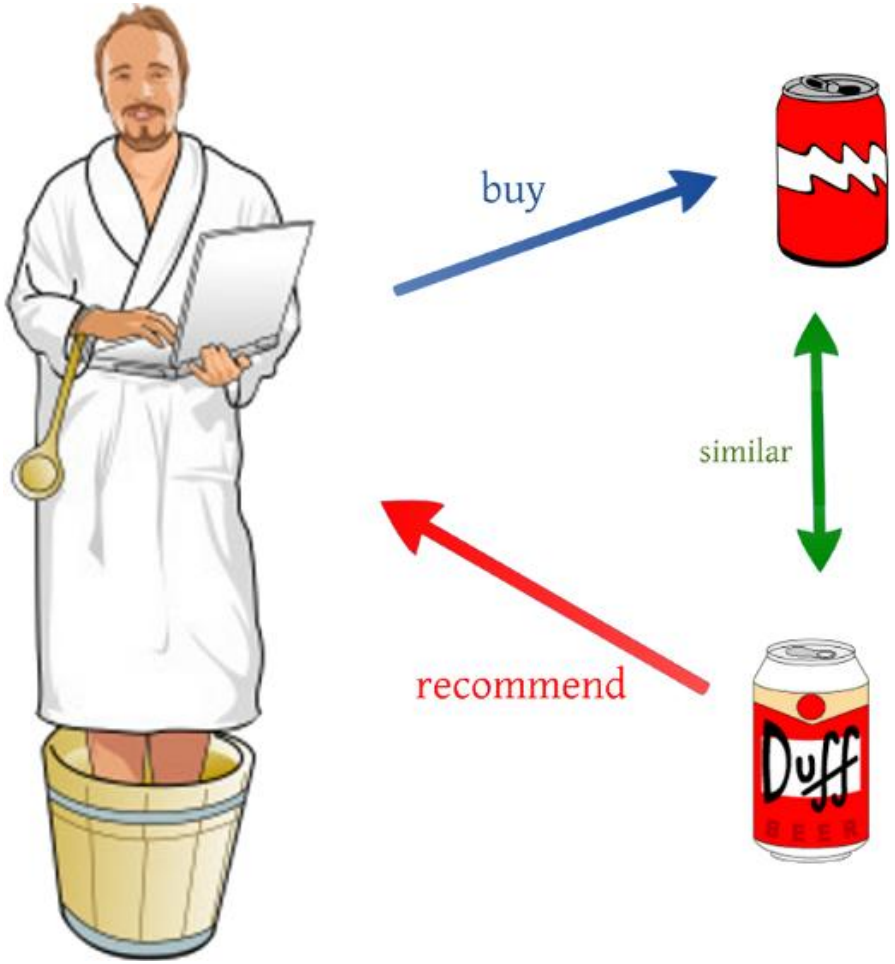
Existing solutions
content based recommendation



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Our difference

- Graph Database
  - Fast search, nodes, relationships
- Hybrid Approach
  - Graph features
- Tag Based Approach
  - Cosine similarity approach

Used technologies

- Neo4j Graph Database
- Eclipse IDE
- Neo4j Java API
- Apache Tomcat Server
- Apache Maven

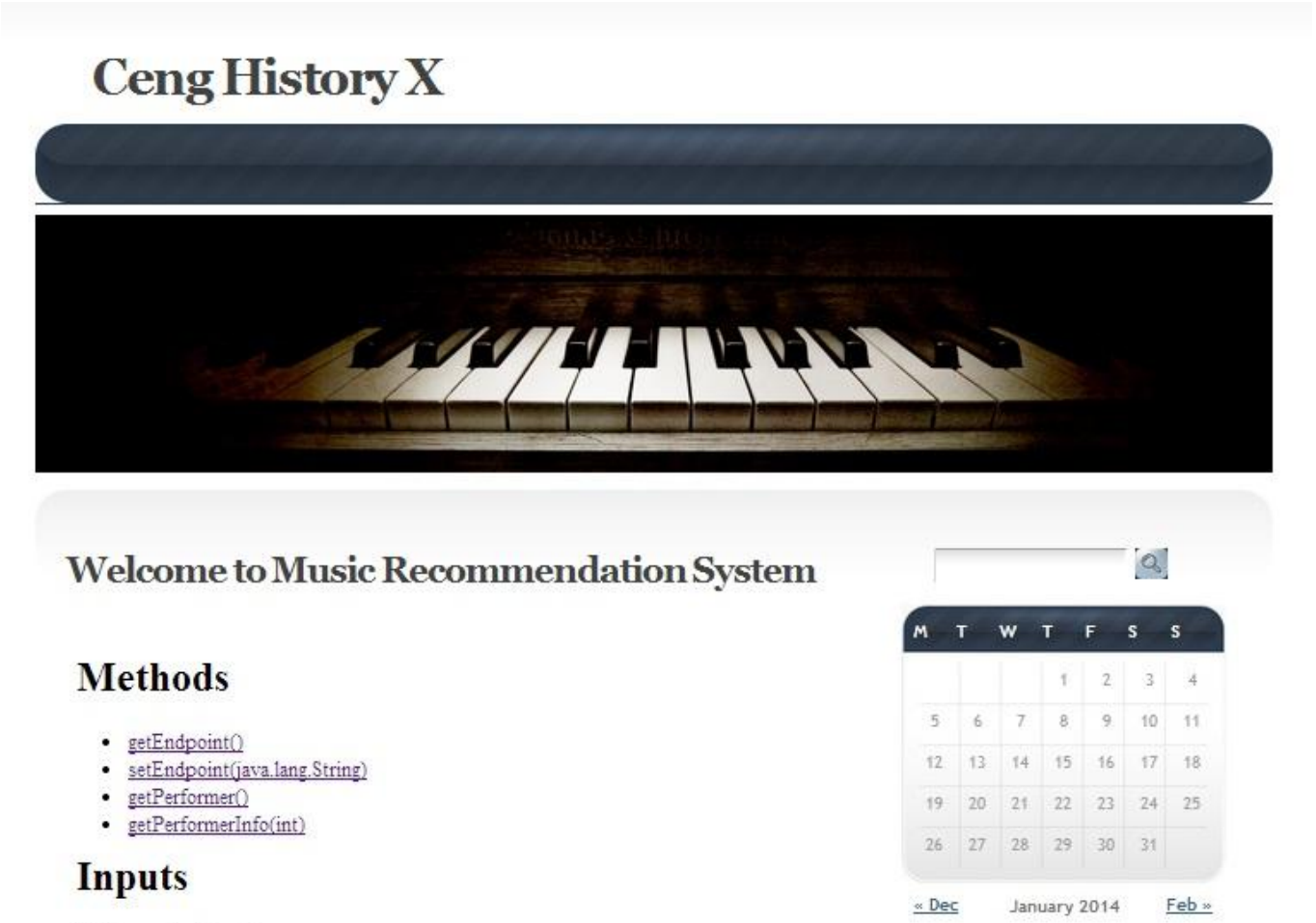
What we have done so far

- Created database
- Imported over 3.000.000 data into graph database
- Connected to database via Neo4j API
- Created a basic GUI to display results
- Created Web Application to connect remote database
- Done basic user based recommendation using collaborative filtering

Future works

- Tag based recommendation
- Content based recommendation
- Hybrid recommendation
- Evaluation module

Basic gui


Ceng History X
Welcome to Music Recommendation System
Methods
getEndpoint()
setEndpoint(java.lang.String)
getPerformer()
getPerformerInfo(int)
Inputs
Select a method to test.
M T W T F S S
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31
« Dec
January 2014
Feb »

Any questions?