



Benutzername



Passwort



Marktplatz Deals Wünsche Games Entertainment

Play Video ▶



Dein Dshini

Werde Teil der größten & beliebtesten deutschen Seite im Web.

Neo4j at Dshini

Ich will über bis in

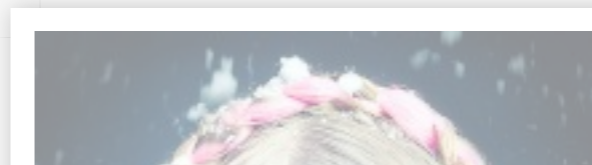
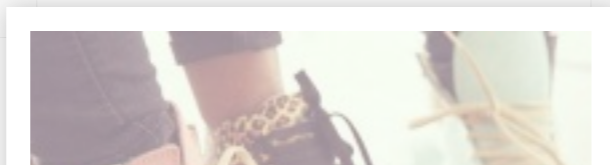
» mehr erfahren

Entdecke & teile Dinge die Du magst

» sammle Punkte » geh shoppen » spare bis zu 100%

Das mögen Nutzer

Spotlight ▼



Who am I?

- Klaus Großmann
- CTO at Dshini
- Mail: klaus@dshini.net
- Twitter: [@iKlaus](https://twitter.com/iKlaus)
- GitHub: [iKlaus](https://github.com/iKlaus)



Who are we?

- Dshini UG (haftungsbeschränkt)
- 2010 founded startup
- based in Weimar/TH Germany
- runs the social networking platform
www.dshini.net

Why Neo4j?

- 2011 «Marketplace»-Project
- Recommendations?
- Schema-less data
- REST-Interface
- Awesome Cypher-QL

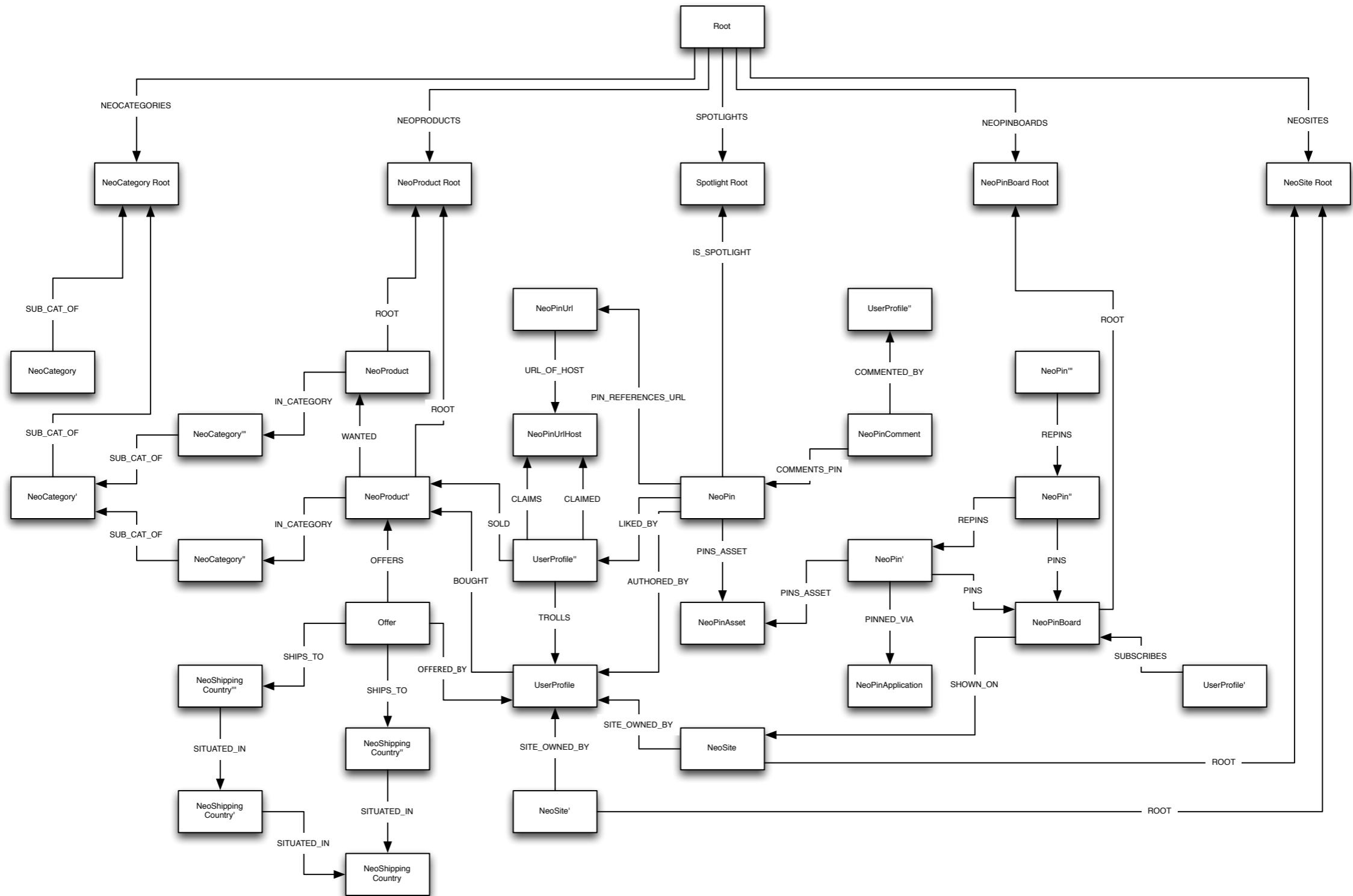


The screenshot shows the Dshini Marketplace website. A yellow callout box is overlaid on the page, containing the following statistics:

- 11 Mio Nodes
- 57 Mio Properties
- 38 Mio Relationships

The website interface includes a navigation bar with 'Übersicht', 'Meine Angebote', 'Meine Swaps', 'Merkmale', and 'Bewertungen'. A search bar is present at the top right. The main content area features a 'Willkommen im Dshini Marktplace' section with buttons for 'Einkaufen', 'Verkaufen', and 'Tauschen'. Below this, there are sections for 'NEUESTE ANGEBOTE' and 'MEISTE DSHINSBACK'.

Domain-Model



Pins in the Graph

Ralf Wipper Angebote Wunschzettel Folgen mir Folge ich suchen: 2.421

Level 46
★★★★★ (0)

Ralf Wipper

Wohnort Weimar
Alter 32
Geschlecht männlich
Beziehung vergeben

719 folgen mir 20 folge ich

Profil bearbeiten · Sichtbarkeit festlegen

Mein Status: 4 Tage her
was kann Bootstrap3

Pins in the Graph

The image shows a social media profile for Ralf Wipper. The profile picture is a photo of three people. The profile information includes: Level 46, 5 stars (0 reviews), Wohnort: Weimar, Alter: 32, Geschlecht: männlich, and Beziehung: vergeben. The status is "Mein Status: 4 Tage her was kann Bootstrap3". The profile is annotated with a red border and three labels: "Follower" (green text, underlined) pointing to the "719 folgen mir" button, "Followings" (blue text, underlined) pointing to the "20 folge ich" button, and "Site" (red text, underlined) pointing to the profile picture area.

Level 46
★★★★★ (0)

Ralf Wipper

Wohnort Weimar
Alter 32
Geschlecht männlich
Beziehung vergeben

Mein Status: 4 Tage her
was kann Bootstrap3

719 folgen mir 20 folge ich

Site

Pins in the Graph

Pinnwand

7 Boards • 47 Pins • 21 Likes • Gästebuch

Reihenfolge ändern

The image shows a grid of six Pinterest boards. Each board has a title bar, a count of pins, a grid of pin thumbnails, and a 'bearbeiten' (edit) button at the bottom.

- Golf:** 30 pins. Title bar: 'Golf'. Pins include golf-related images and a golf cart.
- Apple:** 10 pins. Title bar: 'Apple' with three apple icons. Pins include an iPhone and other Apple products.
- Fotografie:** 40 pins. Title bar: 'Fotografie'. Pins include a neon sign that says 'ALL YOU NEED IS', a motorcycle, a person, and various architectural photos.
- Videos:** 110 pins. Title bar: 'Videos'. Pins include a grid of small video thumbnails and a person in a white lab coat.
- Gemischtes:** 10 pins. Title bar: 'Gemischtes'. Pins include a mobile phone screen showing a sports result: 'Der Mannschaft „Dolphins“ wurde am 30. Dezember 2012 von der Mannschaft „Patriots“ gezeigt, wo es langgeht. Die Partie endete 0 zu 28.' and a stadium name 'GILLETTE STADIUM - FORDBOROUGH'.
- DevOps:** 10 pins. Title bar: 'DevOps'. Pins include a server rack and a cartoon character.

Pins in the Graph

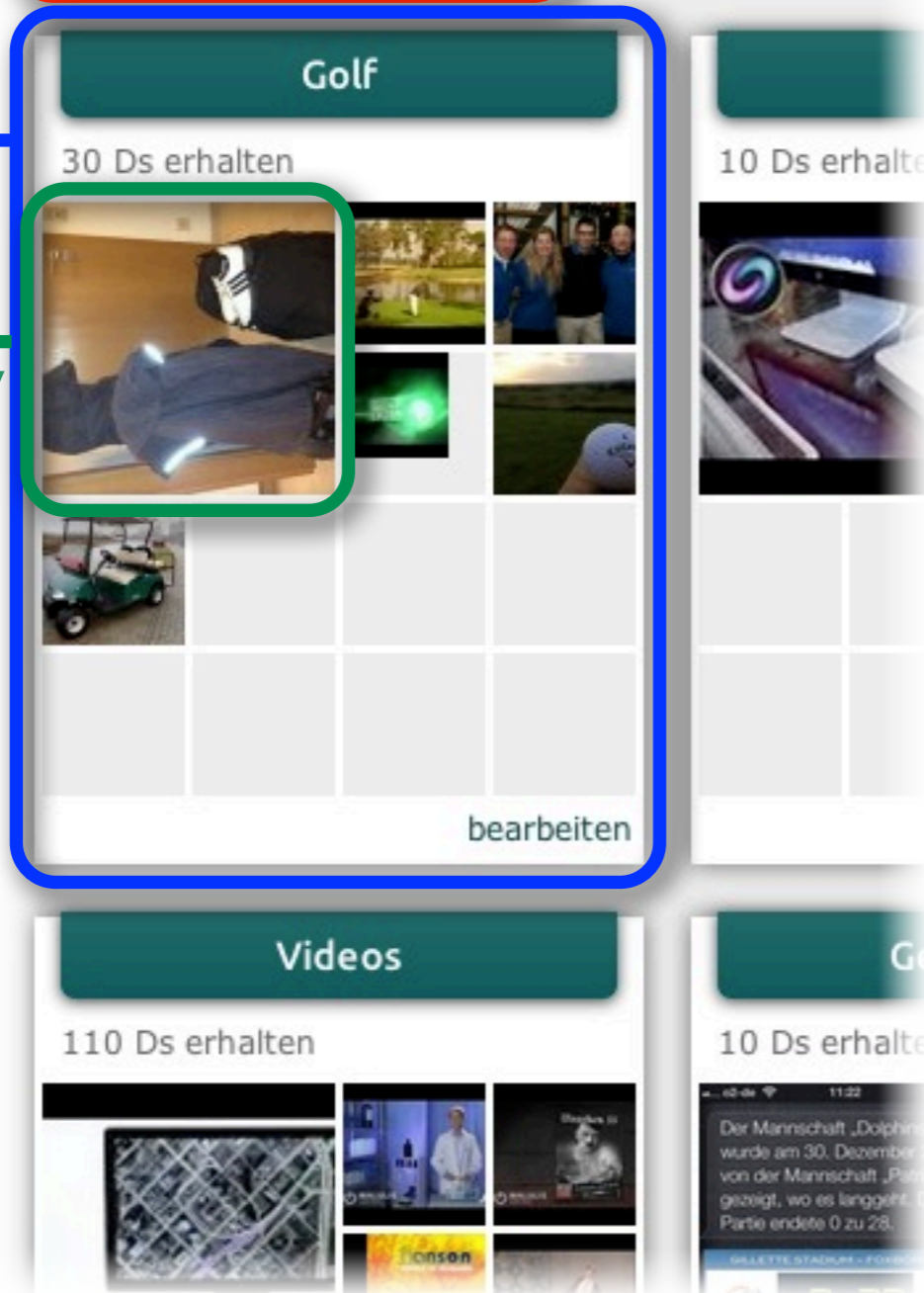
Site-Metas

Pinnwand

7 Boards · 47 Pins · 21 Likes Gästebuch

Board

Pin-
Preview



```
// a site's boards
START n=node({STARTIDS})
MATCH n<-[:BOARD_SHOWN_ON]-boards
RETURN boards
ORDER BY boards.SortOrder?
```

```
// preview pins
START n=node({STARTIDS})
MATCH n<-[:PINS]-pins,
      pins-[:PINS_ASSET]->assets
RETURN pins, assets
ORDER BY pins.CreatedAt DESC
SKIP {QSKIP}
LIMIT {QLIMIT}
```

Pins in the Graph



Try New Things.



Laís Arósio
auf **Soo süß** (◡‿◡)



178 58 95



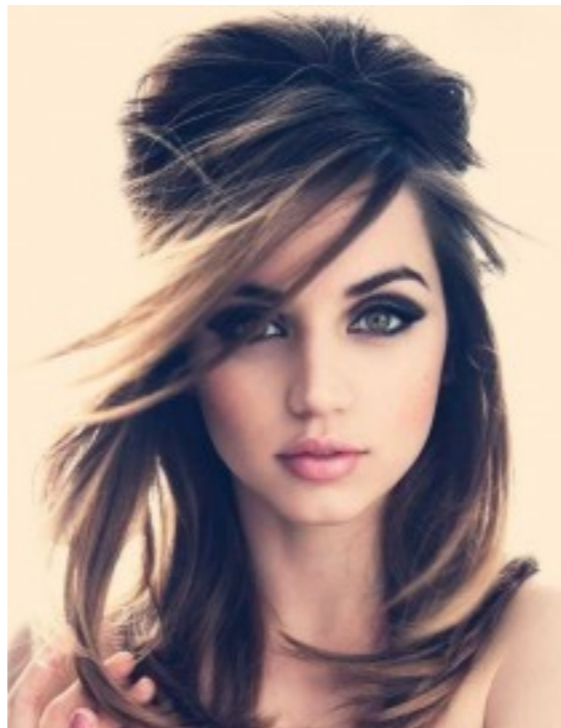
cocoslove1: sooo niedlich *-*



ina1971: süss



lillyfee1978: süß



Retro 60s hair makeup



Laís Arósio
auf **Hairstyles**



62 21 44



regenwolke: cool, nicht schlecht echt schöne Frau



schnucki1989: woooooow



lauracookie: hübsch ! ☺

schön



smartys3
auf **Bilder**



31 14 26



corny09: tolles bild



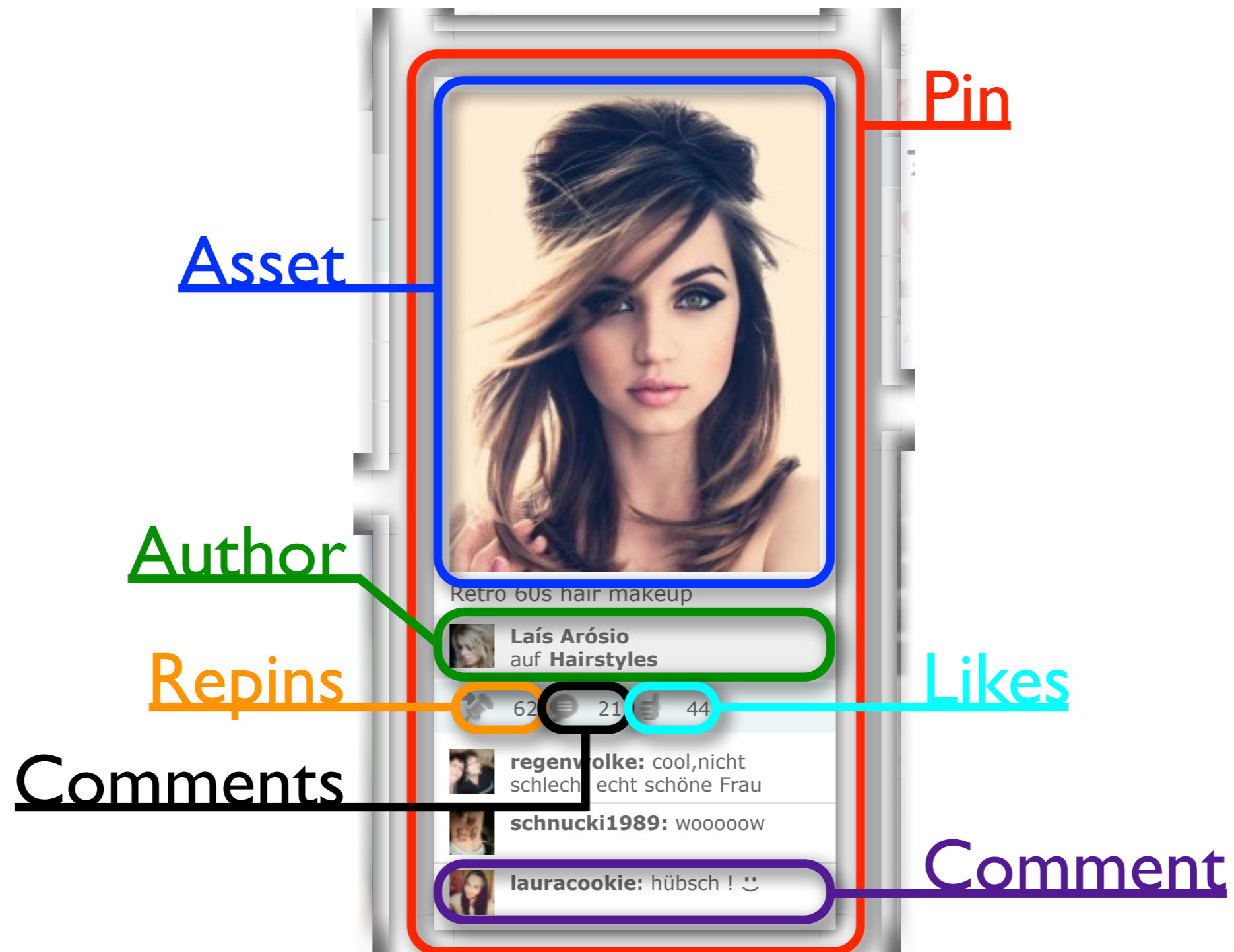
wunderpaula: hübsch! und so tolle farben



zimtstern-89: yay bunt ☺



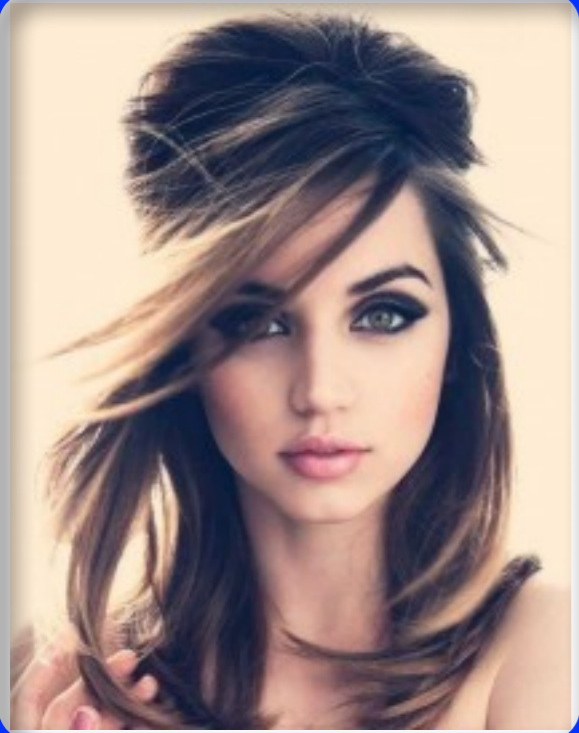
Pins in the Graph



Pins in the Graph

Pins in «Spotlight» Category (staff picks)

```
START n=node:neo_root(RootOf = {ROOT}),
      current=node:user_profile(UserId = {USERID})
MATCH n<-[:IS_SPOTLIGHT]-pin
WHERE (pin.CreatedAt<{PINCREATEDAT})
WITH pin, current
ORDER BY pin.CreatedAt DESC
SKIP {QSKIP}
LIMIT {QLIMIT}
MATCH pin-[:AUTHORED_BY]->author,
      pin-[:PINS]->board,
      pin-[:PINS_ASSET]->asset
WHERE (NOT(author<-[:TROLLS]-current))
RETURN pin, author, board, asset
```



Retro 60s hair makeup

 **Laís Arósio**
auf **Hairstyles**

 62  21  44

 **regenwolke:** cool,nicht
schlecht echt schöne Frau

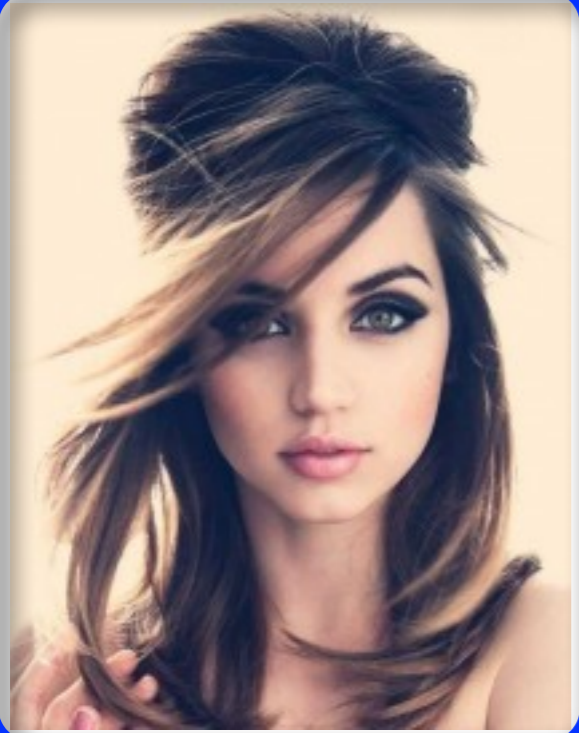
 **schnucki1989:** wo000ow

 **lauracookie:** hübsch ! 😊

Pins in the Graph

Pins by a given category

```
START cat_board=node({CAT}),
      n=node(0)
MATCH cat_board<-[:SUB_BOARD_OF]-board
WITH board, n
MATCH board<-[:PINS]-pin-[:AUTHORED_BY]->author
WHERE (pin.CreatedAt<{PINCREATEDAT})
WITH pin, author, board, n
WHERE NOT(author<-[:TROLLS]-n)
WITH pin, author, board
ORDER BY pin.CreatedAt DESC
SKIP {QSKIP}
LIMIT {QLIMIT}
MATCH pin-[:PINS_ASSET]->asset
RETURN pin, author, board, asset
```



Retro 60s hair makeup

 Laís Arósio
auf Hairstyles

 62  21  44

 regenwolke: cool,nicht
schlecht echt schöne Frau

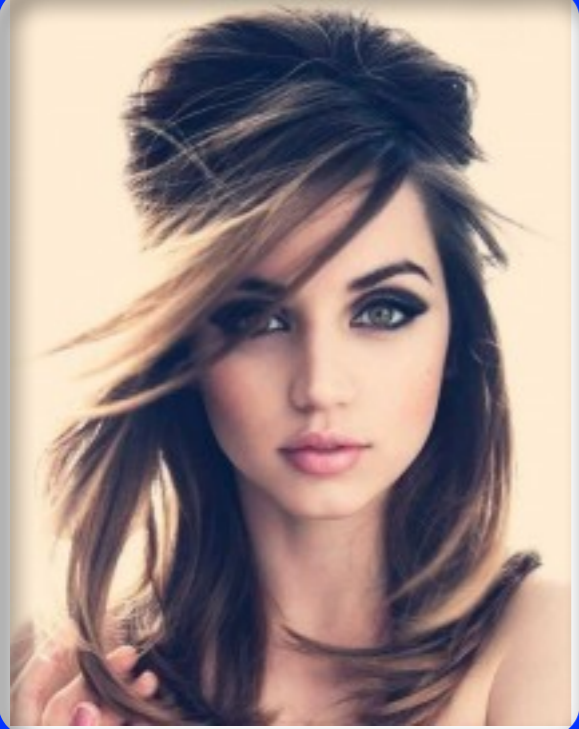
 schnucki1989: wo000ow

 lauracookie: hübsch ! 😊

Pins in the Graph

Pins by a given users timeline

```
START n=node({STARTIDS})
MATCH n-[:SUBSCRIBES]->site,
      site<-[:BOARD_SHOWN_ON*0..1]-board
WITH board, n
MATCH board<-[:PINS]-pin-[:AUTHORED_BY]->author
WHERE (pin.CreatedAt<{PINCREATEDAT})
WITH pin, author, board, n
WHERE NOT(author<-[:TROLLS]-n)
WITH pin, author, board
ORDER BY pin.CreatedAt DESC
SKIP {QSKIP}
LIMIT {QLIMIT}
MATCH pin-[:PINS_ASSET]->asset
RETURN pin, author, board, asset,
       LENGTH(n<-[:LIKED_BY]-pin) > 0 AS has_liked
```



Retro 60s hair makeup

 Laís Arósio
auf Hairstyles

 62  21  44

 regenwolke: cool,nicht
schlecht echt schöne Frau

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 lauracookie: hübsch ! 😊

Lessons learned

- OGM-layers are easy to use but hard to optimize
- lazy loading models costs performance
- query optimized secondary index-structures have to be planed from the beginning
- graphs are awesome!

That's it!

Thank you!

Questions?