



FIAP 27SCJ

FUNDAMENTOS JAVA E UML

Projeto Final de Avaliação

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Objetivo (notas do Professor)

“A proposta deste projeto é aplicar os conhecimentos adquiridos e revisados em todo seu conteúdo, abrangendo conceitos de modelagem de classes, diagramas controle de exceção, coleções, streams, IO, threads, dentre outros.”

“Construir uma aplicação Java que seja capaz de se integrar a API do Twitter para buscar as seguintes informações de uma determinada Hashtag:

- 1. Quantidade por dia de tweets da última semana.*
- 2. Quantidade por dia de retweets da última semana.*
- 3. Quantidade por dia de favoritações da última semana.*
- 4. Ordenar os tweets pelo nome do autor, e exibir o primeiro nome e o último nome.*
- 5. Ordenar os tweets por data, e exibir a data mais recente e a menos recente.”*

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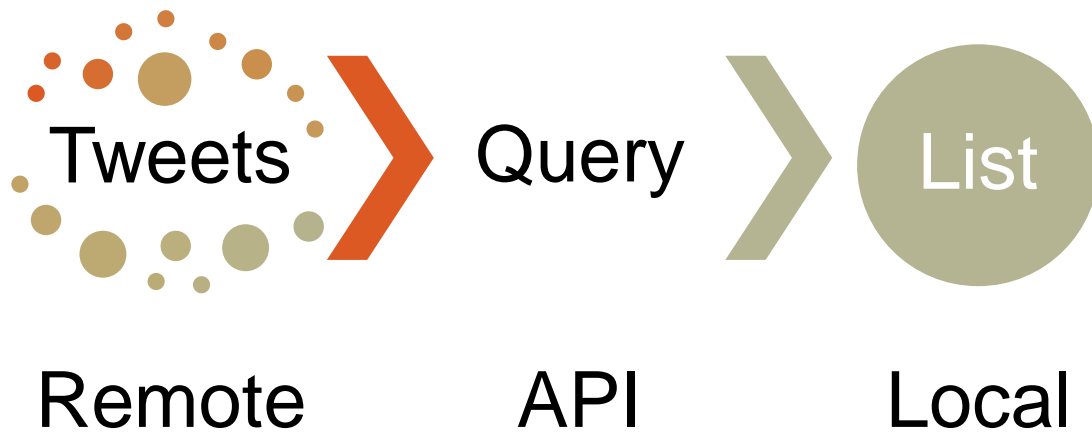
FERRAMENTAS, API's E APLICAÇÕES UTILIZADAS

- JDK 8
- Eclipse Kepler
- Twitter4J
- JUnity 4.11
- Astah Community Edition
- Microsoft Word 2010

1. SOLUÇÃO DEFINIDA

Dado contexto, a solução escolhida por motivos de performance e quantidade de consultas foi:

Carregar **toda a lista de Tweets** de forma massiva em uma única lista e, após isso iterar os dados localmente catalogando as informações solicitadas:

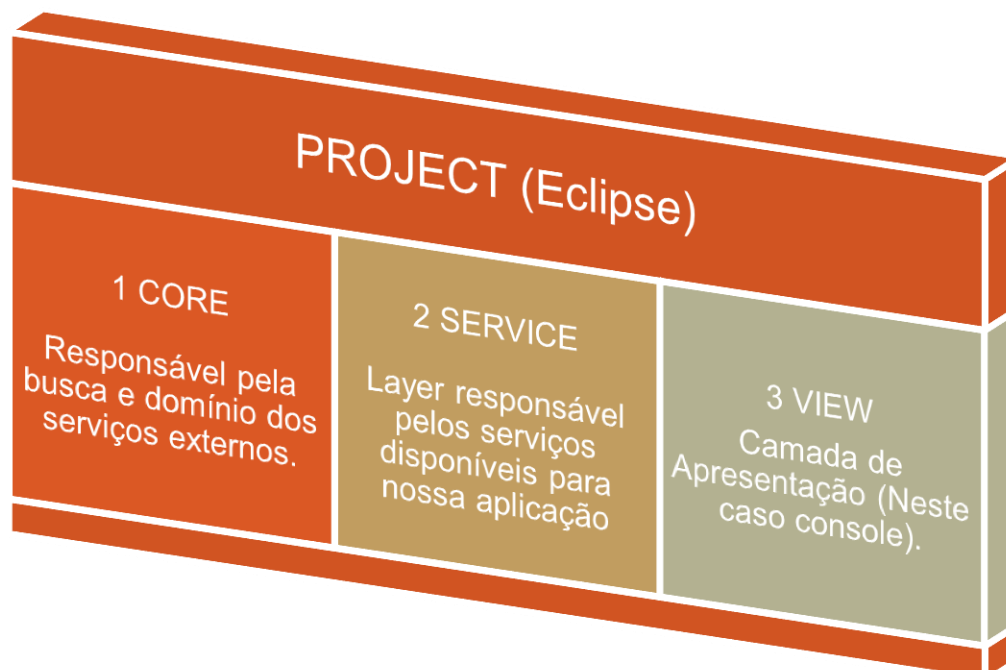


Esta abordagem foi selecionada pois a API do Twitter não permite buscas com domínio reduzido. Exemplo: “Buscar **todos os Usuários** que Postaram a Hastag xyz”.

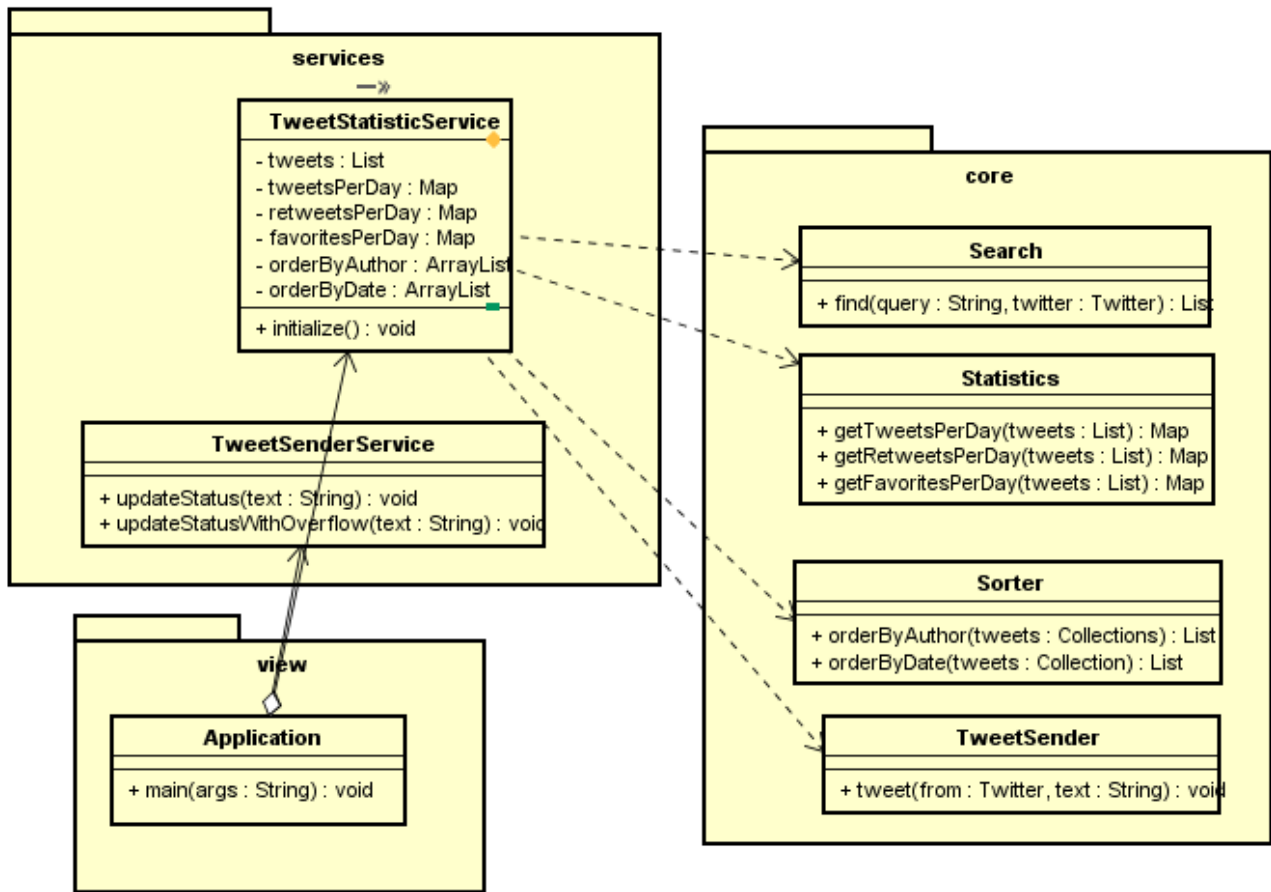
É necessário retornar “**Todos os Tweets** que possuem a Hastag xyz” e, desta forma chegar aos seus respectivos autores.

2. MODELO PROPOSTO

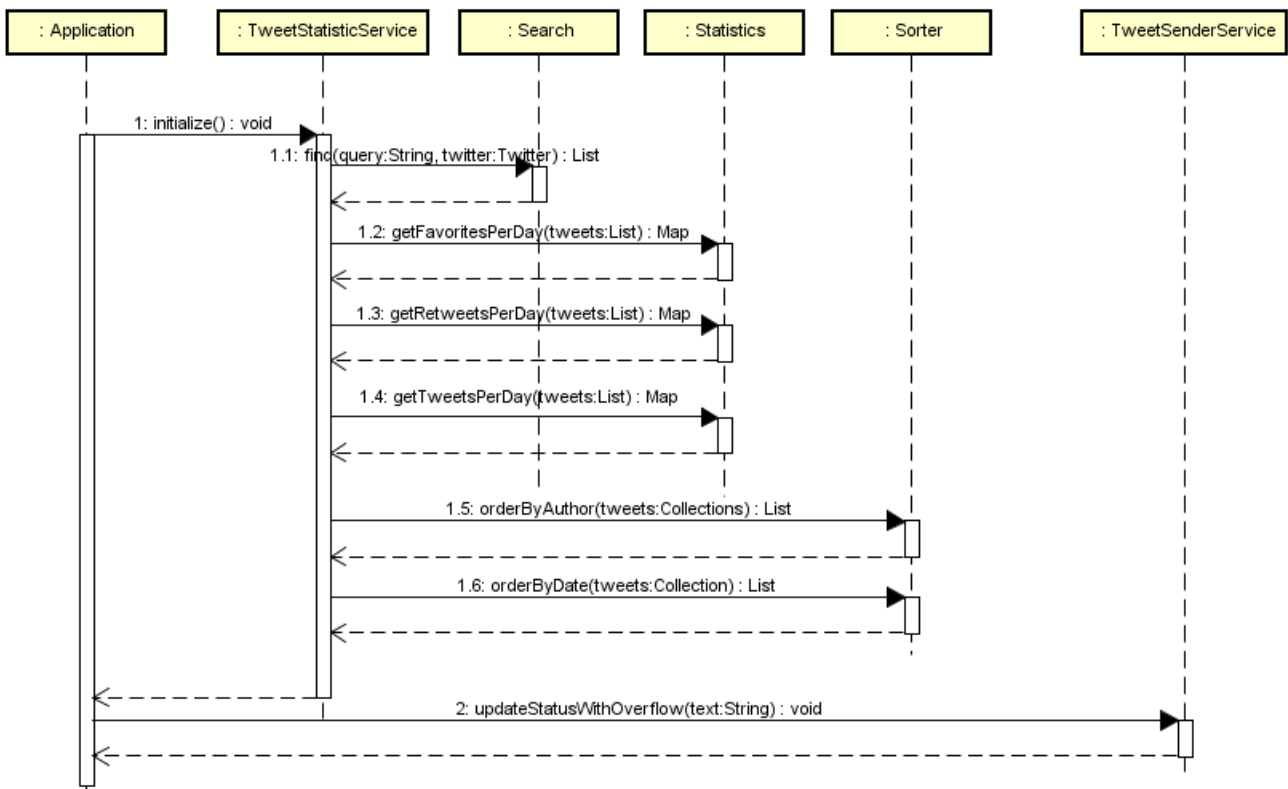
Um projeto (Eclipse Project), em três camadas distintas por empacotamento, sendo elas:



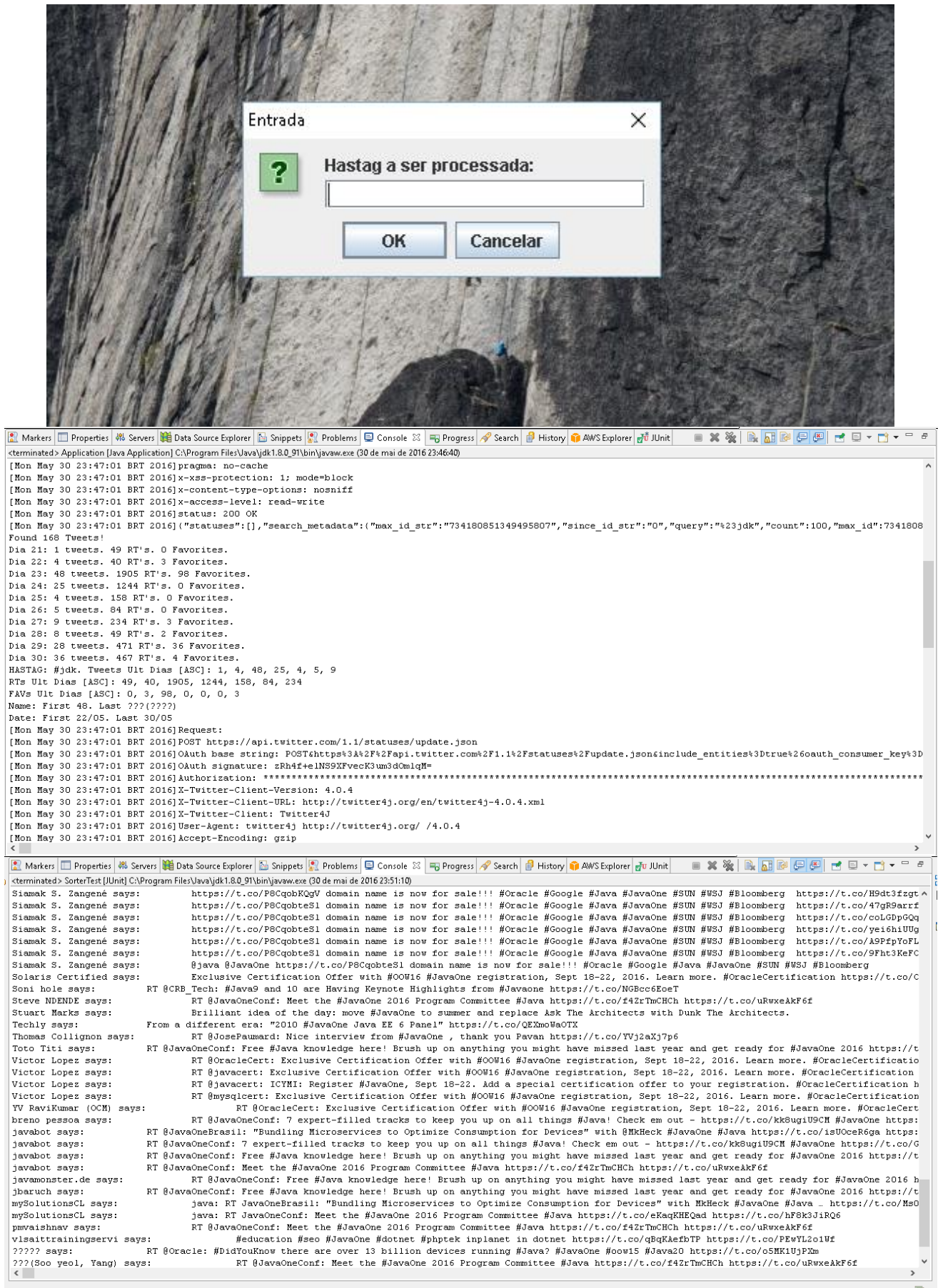
3. DIAGRAMA DE CLASSES



4. DIAGRAMA DE SEQUÊNCIA



5. PROTÓTIPO E EXECUÇÃO



Entrada

Hastag a ser processada:

OK Cancelar

```
<terminated> Application [Java Application] C:\Program Files\Java\jdk1.8.0_91\bin\javaw.exe (30 de mai de 2016 23:46:40)
[Mon May 30 23:47:01 BRT 2016] pragma: no-cache
[Mon May 30 23:47:01 BRT 2016] x-xss-protection: 1; mode=block
[Mon May 30 23:47:01 BRT 2016] x-content-type-options: nosniff
[Mon May 30 23:47:01 BRT 2016] x-access-level: read-write
[Mon May 30 23:47:01 BRT 2016] status: 200 OK
[Mon May 30 23:47:01 BRT 2016] {"statuses": [], "search_metadata": {"max_id_str": "734180851349495807", "since_id_str": "0", "query": "%23jdk", "count": 100, "max_id": 7341808
Found 168 Tweets!
Dia 21: 1 tweets. 49 RT's. 0 Favorites.
Dia 22: 4 tweets. 40 RT's. 3 Favorites.
Dia 23: 48 tweets. 1905 RT's. 98 Favorites.
Dia 24: 25 tweets. 1244 RT's. 0 Favorites.
Dia 25: 4 tweets. 158 RT's. 0 Favorites.
Dia 26: 5 tweets. 84 RT's. 0 Favorites.
Dia 27: 9 tweets. 234 RT's. 3 Favorites.
Dia 28: 8 tweets. 49 RT's. 2 Favorites.
Dia 29: 28 tweets. 471 RT's. 36 Favorites.
Dia 30: 36 tweets. 467 RT's. 4 Favorites.
HASTAG: #jdk. Tweets Ult Dias [ASC]: 1, 4, 48, 25, 4, 5, 9
RTs Ult Dias [ASC]: 49, 40, 1905, 1244, 158, 84, 234
FAVs Ult Dias [ASC]: 0, 3, 98, 0, 0, 0, 3
Name: First 48. Last ???(???)
Date: First 22/05. Last 30/05
[Mon May 30 23:47:01 BRT 2016] Request:
[Mon May 30 23:47:01 BRT 2016] POST https://api.twitter.com/1.1/statuses/update.json
[Mon May 30 23:47:01 BRT 2016] OAuth base string: POSThttps%3A%2F%2Fapi.twitter.com%2F1.1%2Fstatuses%2Fupdate.json%5B%5D%3Dtrue%26oauth_consumer_key%3D
[Mon May 30 23:47:01 BRT 2016] OAuth signature: zRh4f+eINS9XfvecK3um3dOmIqM=
[Mon May 30 23:47:01 BRT 2016] Authorization: *****
[Mon May 30 23:47:01 BRT 2016] X-Twitter-Client-Version: 4.0.4
[Mon May 30 23:47:01 BRT 2016] X-Twitter-Client-URL: http://twitter4j.org/en/twitter4j-4.0.4.xml
[Mon May 30 23:47:01 BRT 2016] X-Twitter-Client: Twitter4J
[Mon May 30 23:47:01 BRT 2016] User-Agent: twitter4j http://twitter4j.org/ /4.0.4
[Mon May 30 23:47:01 BRT 2016] Accept-Encoding: gzip
<
<terminated> SorterTest [JUnit] C:\Program Files\Java\jdk1.8.0_91\bin\javaw.exe (30 de mai de 2016 23:51:10)
Siamak S. Zangené says: https://t.co/P8CqobKQgV domain name is now for sale!!! #Oracle #Google #Java #JavaOne #SUN #WSJ #Bloomberg https://t.co/H9d3fzgt
Siamak S. Zangené says: https://t.co/P8CqobteS1 domain name is now for sale!!! #Oracle #Google #Java #JavaOne #SUN #WSJ #Bloomberg https://t.co/47gR9arrf
Siamak S. Zangené says: https://t.co/P8CqobteS1 domain name is now for sale!!! #Oracle #Google #Java #JavaOne #SUN #WSJ #Bloomberg https://t.co/colGdpGQq
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Siamak S. Zangené says: https://t.co/P8CqobteS1 domain name is now for sale!!! #Oracle #Google #Java #JavaOne #SUN #WSJ #Bloomberg https://t.co/A9PfpYoFL
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Solaris Certified says: Exclusive Certification Offer with #OOOW16 #JavaOne registration, Sept 18-22, 2016. Learn more. #OracleCertification https://t.co/C
Soni hole says: RT @CRB_Tech: #Java9 and 10 are Having Keynote Highlights from #Javaone https://t.co/NGBcc6EoeT
Steve NDENDE says: RT @JavaOneConf: Meet the #JavaOne 2016 Program Committee #Java https://t.co/f4ZrTmCHCh https://t.co/uRwxeAkF6f
Stuart Marks says: Brilliant idea of the day: move #JavaOne to summer and replace Ask The Architects with Dunk The Architects.
Techly says: From a different era: "2010 #JavaOne Java EE 6 Panel" https://t.co/QEXmoWaOTX
Thomas Collignon says: RT @JosePaumard: Nice interview from #JavaOne , thank you Pavan https://t.co/YVj2aXj7p6
Toto Titi says: RT @JavaOneConf: Free #Java knowledge here! Brush up on anything you might have missed last year and get ready for #JavaOne 2016 https://t
Victor Lopez says: RT @OracleCert: Exclusive Certification Offer with #OOOW16 #JavaOne registration, Sept 18-22, 2016. Learn more. #OracleCertificatio
Victor Lopez says: RT @javacert: Exclusive Certification Offer with #OOOW16 #JavaOne registration, Sept 18-22, 2016. Learn more. #OracleCertificatio
Victor Lopez says: RT @javacert: ICYMI: Register #JavaOne, Sept 18-22. Add a special certification offer to your registration. #OracleCertification h
Victor Lopez says: RT @mysqlicert: Exclusive Certification Offer with #OOOW16 #JavaOne registration, Sept 18-22, 2016. Learn more. #OracleCertification
YV RaviKumar (OCM) says: RT @OracleCert: Exclusive Certification Offer with #OOOW16 #JavaOne registration, Sept 18-22, 2016. Learn more. #OracleCert
breno pessoa says: RT @JavaOneConf: 7 expert-filled tracks to keep you up on all things #Java! Check em out - https://t.co/kk8ugiU9Cm #JavaOne https://t.co/G
javabot says: RT @JavaOneBrasil: "Bundling Microservices to Optimize Consumption for Devices" with #MkHeck #JavaOne #Java https://t.co/isU0ceR6gs https://t
javabot says: RT @JavaOneConf: 7 expert-filled tracks to keep you up on all things #Java! Check em out - https://t.co/kk8ugiU9Cm #JavaOne https://t.co/G
javabot says: RT @JavaOneConf: Free #Java knowledge here! Brush up on anything you might have missed last year and get ready for #JavaOne 2016 https://t
javabot says: RT @JavaOneConf: Meet the #JavaOne 2016 Program Committee #Java https://t.co/f4ZrTmCHCh https://t.co/uRwxeAkF6f
javamonster.de says: RT @JavaOneConf: Free #Java knowledge here! Brush up on anything you might have missed last year and get ready for #JavaOne 2016 h
jbaruch says: RT @JavaOneConf: Free #Java knowledge here! Brush up on anything you might have missed last year and get ready for #JavaOne 2016 https://t
mySolutionsCL says: java: RT JavaOneBrasil: "Bundling Microservices to Optimize Consumption for Devices" with #MkHeck #JavaOne #Java _ https://t.co/Ms0
mySolutionsCL says: java: RT JavaOneConf: Meet the #JavaOne 2016 Program Committee #Java https://t.co/eKqKHEQad https://t.co/BF83J1RQ6
pmvaishnav says: RT @JavaOneConf: Meet the #JavaOne 2016 Program Committee #Java https://t.co/f4ZrTmCHCh https://t.co/uRwxeAkF6f
vlsaitrainingservi says: #education #seo #JavaOne #dotnet #phptek inplanet in dotnet https://t.co/qBqKaeFbTP https://t.co/PEwYL2oiWf
???? says: RT @Oracle: #DidYouKnow there are over 13 billion devices running #Java? #JavaOne #ooow15 #Java20 https://t.co/o5MKI1UjP2m
??? (Soo yeol, Yang) says: RT @JavaOneConf: Meet the #JavaOne 2016 Program Committee #Java https://t.co/f4ZrTmCHCh https://t.co/uRwxeAkF6f
<
```

Modelo Tweet (UpdateStatus) via API, respeitando os limites de caracteres da plataforma:

Hastag xyz;

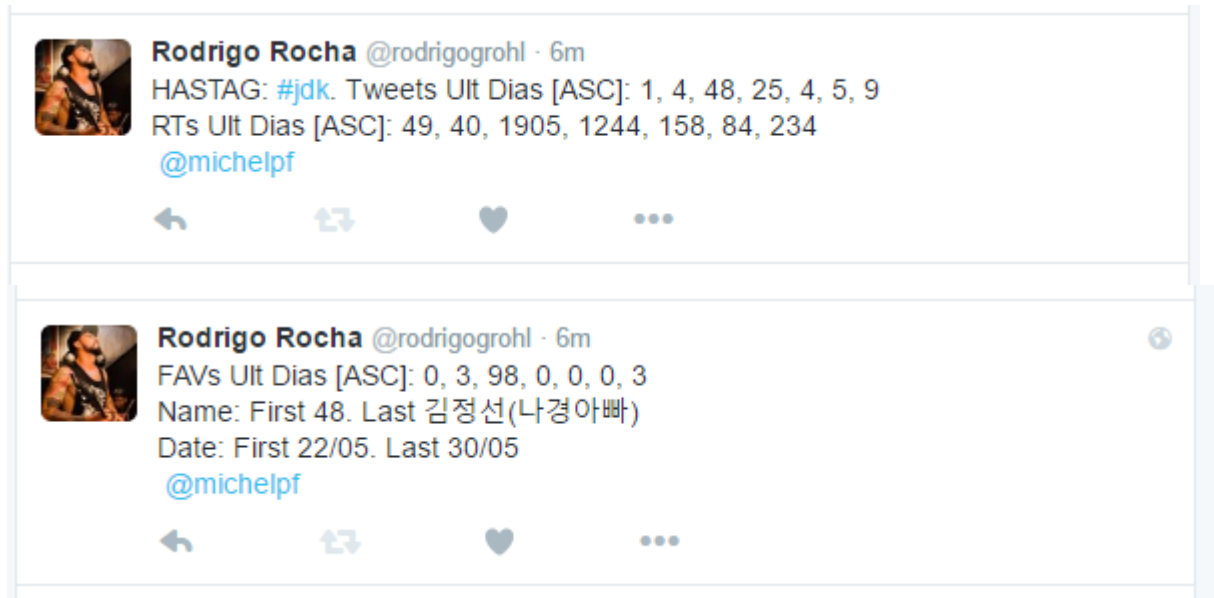
Quantidade **Tweets** últimos dias (Ascendente): d -6, d -5, d -4, d -3, d -2, d -1, hoje.

Quantidade **Retweets**: d -6, d -5, d -4, d -3, d -2, d -1, hoje.

Quantidade **Favoritos**: d -6, d -5, d -4, d -3, d -2, d -1, hoje.

Primeiro e últimos **nomes** por ordenação alfabética;

Primeira e última **data** dos tweets;



6. SOURCE

Esta atividade foi disponibilizada **no Portal Do Aluno FIAP** e também no **Github**:

<https://github.com/rodrigogrohl/fiap-rrocha/tree/master/27SCJ-FundJava-Final>

Log de execução: 27SCJ-FundJava-Final\documentacao\log-app.txt

Diagramas UML: /FundamentosJava-Final/documentacao/Especificacao-UML.asta

7. CONCLUSÃO

A tecnologia deve sempre ser usada de forma eficaz, atendendo um objetivo proposto, soluções devem ser simples e utilizar outras soluções. Reinventar a roda nunca é uma opção!

Entender o cenário, avaliar as opções e ferramentas disponíveis, formam a base de qualquer solução efetiva.

Particularmente, agradeço o professor e efetividade em acrescentar pontos importantes no contexto da matéria, novidades da SDK, cases, experiências e cenários reais.