

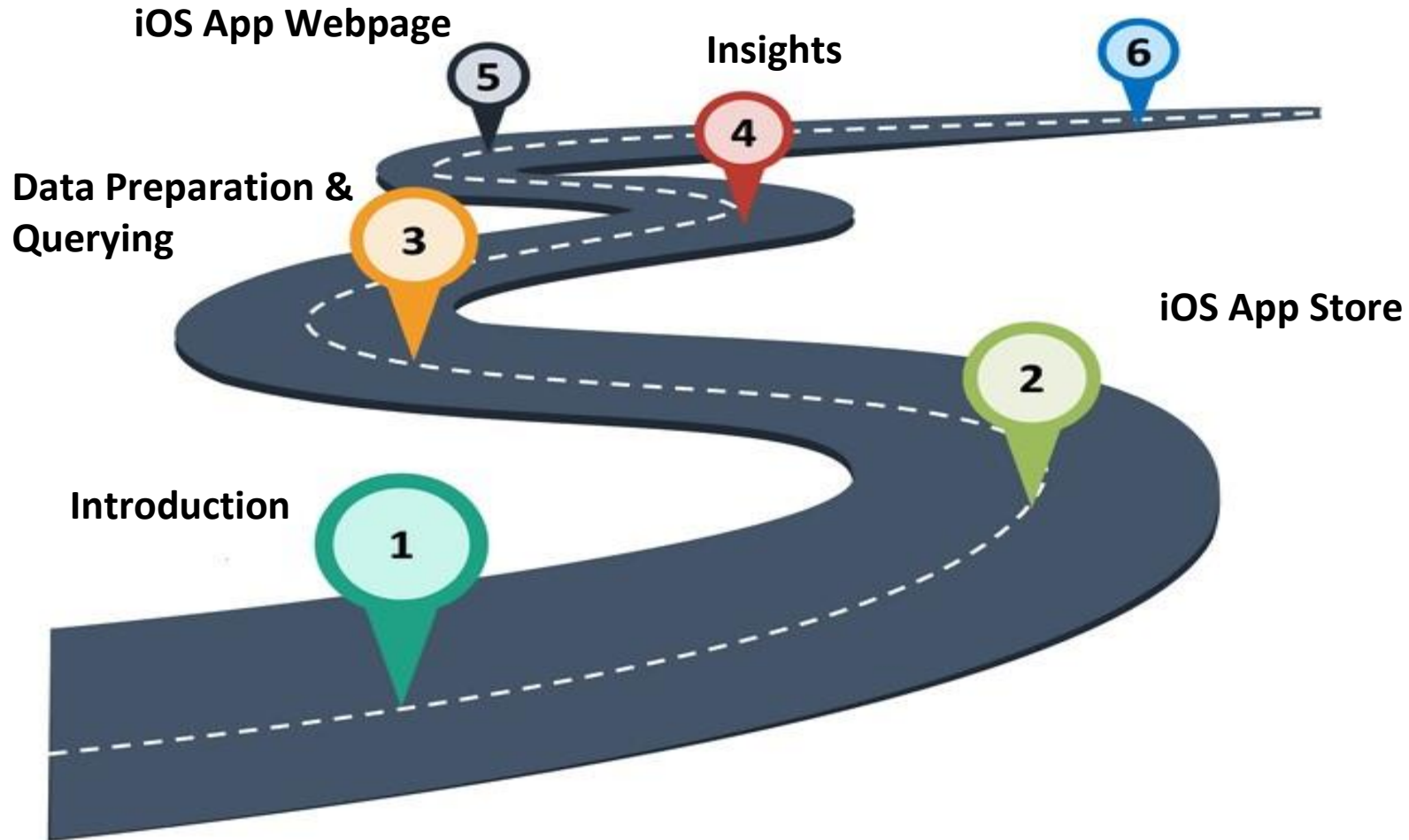
iOS App Review Analysis



Submitted By:

Sithara Vanmerimeethal Paleri

Overview





Download on the App Store

Brief History

- ✦ Year 2008 launched the iOS App Store
 - ✦ 2.2 million apps available
 - ✦ 130 billion + downloads
 - ✦ App proves within 24 hrs. to 48 hrs.
 - ✦ Review committee dedicated for the approval of the app

Understanding the Data



Review
0.14 M

Ranking
0.11 M

Release
1000

Apps
227

Reviews
0.14 M

Reviewers
0.13 M

Reviews
94 K
😊

Reviews
44 K
😞



Data Preparation & Querying



MongoDB Pseudo Schema



USERS:

```
{
  "appleId": "userone01@gmail.com"
  "name": "userone"
  "country/region": "USA"
  "phone": 4678972345
  "unixUserTime": "132523538289"
},
{
  "appleId": "usertwo02@gmail.com"
  "name": "usertwo"
  "country/region": "India"
  "phone": 9988972345
  "unixUserTime": 132523538289
},
{
  "appleId": "userthree03@gmail.com"
  "name": "userthree"
  "country/region": "India"
  "phone": 9988972345
  "unixUserTime": "132523538289"
}
```

APPS:

```
{
  "appId": "5342318"
  "storeAppId": "FER4526"
  "description": "Canva makes design ama
zingly simple and fun"
  "price": 100
  "overallRating": 5.0
  "reviews": [
    {
      "reviewId": "1543"
      "title": "The app we all want"
      "reviewText": "This app is so simple to u
se"
      "reviewDate": "26/08/2019"
      "rating": 4.7
      "reviewBy": "usertwo"
      "developerResponse": "Hello, Thank you
for your response"
    },
    {
      "reviewId": "6573"
      "title": "Pretty fun app"
      "reviewText": "This app is really fun, but
I have few things that would be really gr
eat if you could add"
      "reviewDate": "02/08/2018"
      "rating": 4.0
      "reviewBy": "userone"

```

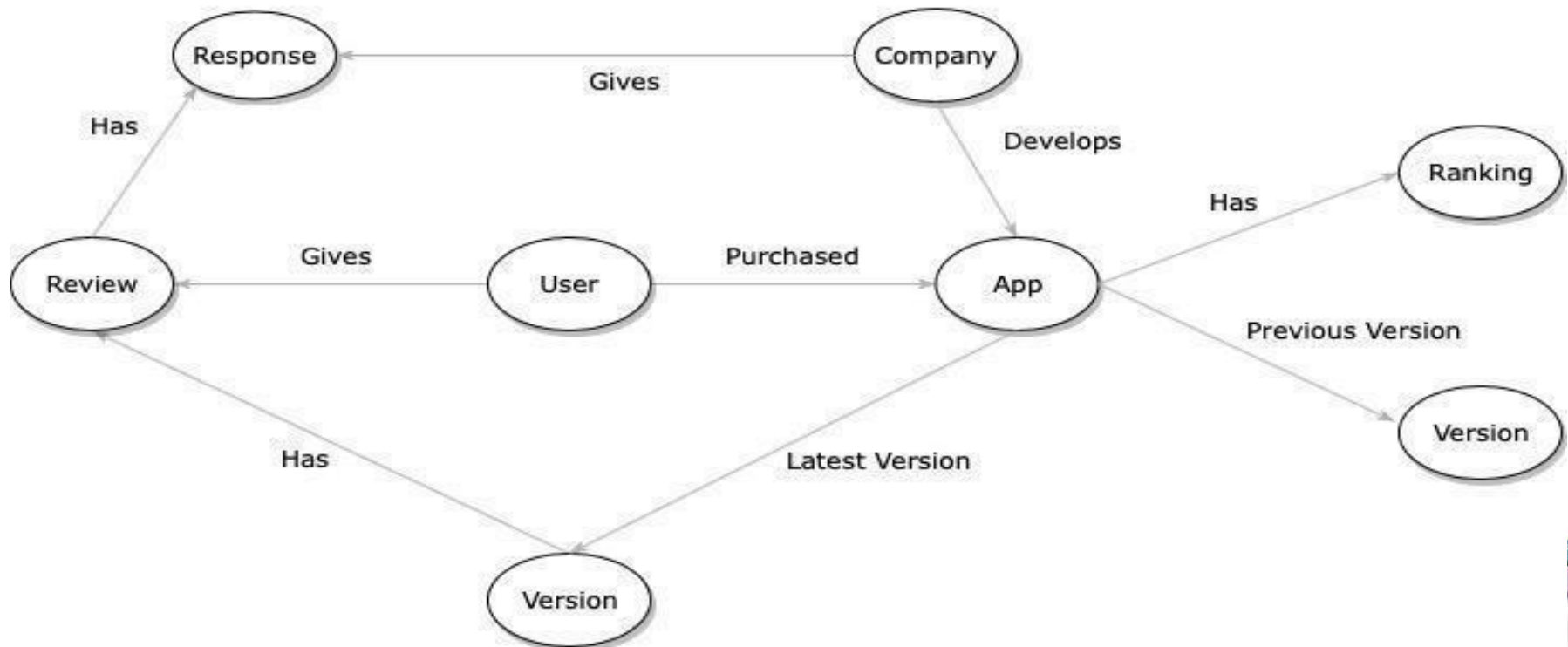
```
"developerResponse": "Thank you for your suggestions"
}
]
"purchasedBy": ["usertwo", "userfour", "userthree"]
"rankings": {
  "category": "photo $ video"
  "ranks": "#34"
}
"company": {
  "sellerName": "Canva Pvt Ltd"
  "developerWebsite": "https://canva.com"
  "copyright": "@2019"
}
"age": "+4"
"version": [
  {
    "versionNumber": "3.2.1"
    "releaseDate": "12/04/2018"
    "size": "128"
    "versionDescription": "This version is released to update the bugs
and launch new feature"
  },
  {
    "versionNumber": "3.1.4"
    "releaseDate": "07/01/2017"
    "size": "128"
    "versionDescription": "This version is released to update the bugs
and launch new feature"
  }
]
"unixAppTime": 4356724381
}
```




Neo4j – Graph Model



Graph To Show Nodes and Relationships



iOS Web Page



Pic Perfect
Jakss Inc.
4.0 ★

Version 1.41.047

Ratings and Reviews →

4.0
★★★★★

5	██████████
4	██████████
3	██████████
2	██████████
1	██████████


Most Helpful Review →

A Wonderful Creative Tool!
Alexa92
I am a professional artist and use this app all the time in my work.It gives me a chance to play with color, contrast, cropping...


Most Critical Review →

Too Many ads for a photo app
JohnDoe007
Your ads are comparable to the ads in a torrent client. Disruptive and too long.


Top Ranking Apps



Explor
4.8 ★




Fly Bird
4.3 ★




BrowserSphere
4.6 ★


Recommended For You



PhotoCam
4.2 ★



PicHex
4.4 ★



CamPro
4.3 ★

Trending Within Category

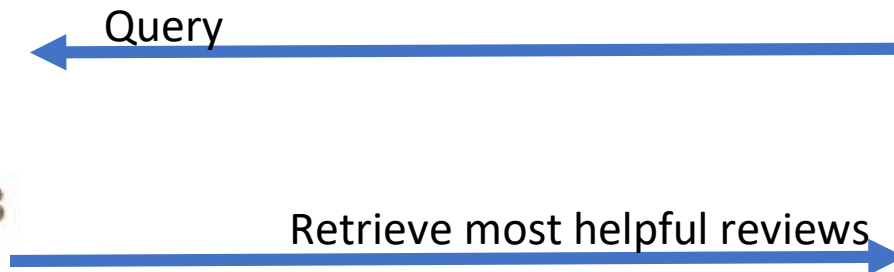
Top Free

Top Paid

Top Grossing



Deep Dive – Helpful Reviews



- Our Criteria
 - Cognitive Process words
 - Verbosity of the review
 - Star rating



Review Analysis - Neo4j



- Mob Opinion Mining

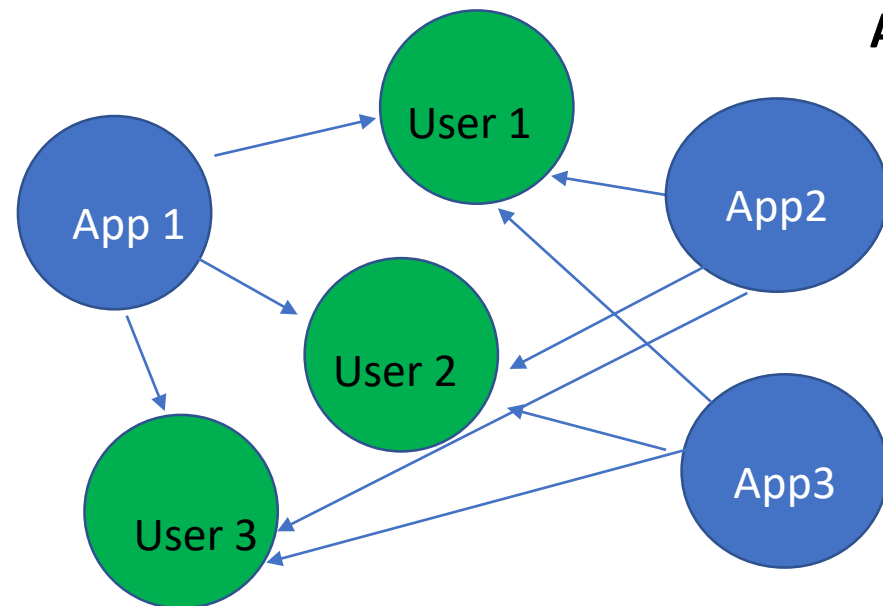
What- When a group of reviewers review similar set apps (group spammers)

Analysis- High probability of these set of users giving fake reviews

- Survival of the fittest

When - Similar functionality apps have high review rating deviation

Analysis -Average performing apps are overpowered by very high performing apps



Fake Review Analysis - SAS Enterprise Miner



Flow Diagram – Finding Fake Reviews



- Tense Used (First Person Words)
- High Intensity positive and negative Words ()
- Auxiliary Verbs
- Less Analytical Text
- Overuse of Similar Words



Summary



History of iOS App Store



Data Understanding



Designing Database Schema



Deriving Analytical Metrics



Designing iOS App Web Page



Text Mining for identifying fake review

Questions



Thank You

