OSINT APPLICATION

TEAM CHICAGO BEARS AND HAWKS:

Jacob Huebner	(Lead Project Manager)
Abdallah Inayath	(Project Manager)
Anushka Sharma	(Project Manager)
Satwik Kommi	(Lead Developer)
Abdulaziz Aldossari	(Developer)
Palaniappan Senthilnathan	(Developer)
Vamsi Srinivas Jadhav	(Lead Analyst)
Kelly Perez	(Analyst)
Yunhan Zhang	(Analyst)

ILLINOIS INSTITUTE OF TECHNOLOGY

Slide 1

1 Jacob (And everyone)

J H, 12/4/2019

Overview

1. Project Scope and Objectives
2. Communication and Collaboration
3. Risk Assessment
4. Earned Value Analysis
5. Software Code
6. Analysis Reports
7. Live Demonstration

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2 Jacob

J H, 12/4/2019

Project Scope and Objectives

Scope: Plan, build, and present an Open Source Intelligence Application by December 4th that gathers data from Twitter and Reddit based on a hashtag (E.g. #BlackFridayDeals) and generates popularity measurements.

Objectives:

1. Develop OSINT App by 12/4
2. Create ITM plan by 12/4
3. Present project on 12/4

Main Deliverables:

1. OSINT Application
2. ITM Plan
3. Presentation

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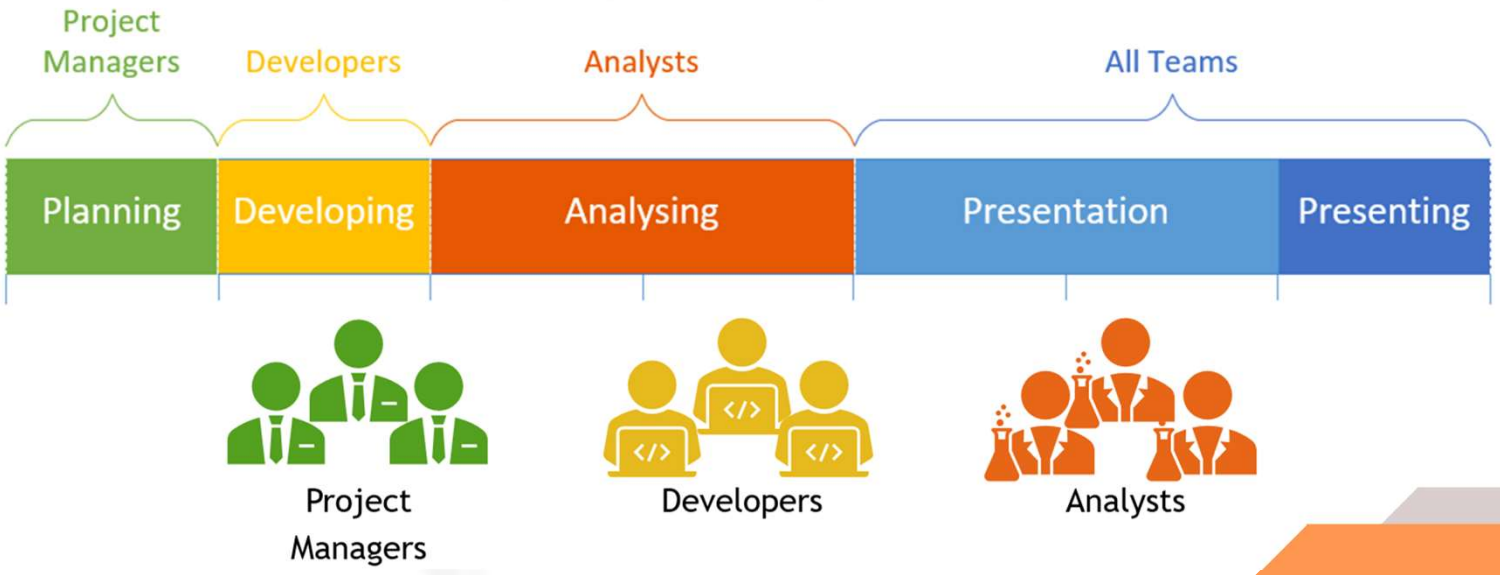
3

Jacob

J H, 12/4/2019

Project Scope and Objectives

Timeline:



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4 Jacob

J H, 12/4/2019

Deliverables

Project Management:

1. Project Management Plan
2. Project Charter
3. Communication Plan
4. Risk Management Log
5. Cost Evaluation

Analysis:

1. Analysis Report #1 - Twitter
2. Analysis Report #2 - Reddit
3. OSINT Presentation

Development:

1. Logical Design
2. OSINT Software
3. OSINT Software Scripts
4. Live Software Demonstration
5. Report Data #1 - Twitter
6. Report Data #1 - Reddit

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5 Jacob

J H, 12/4/2019

Executive Summary

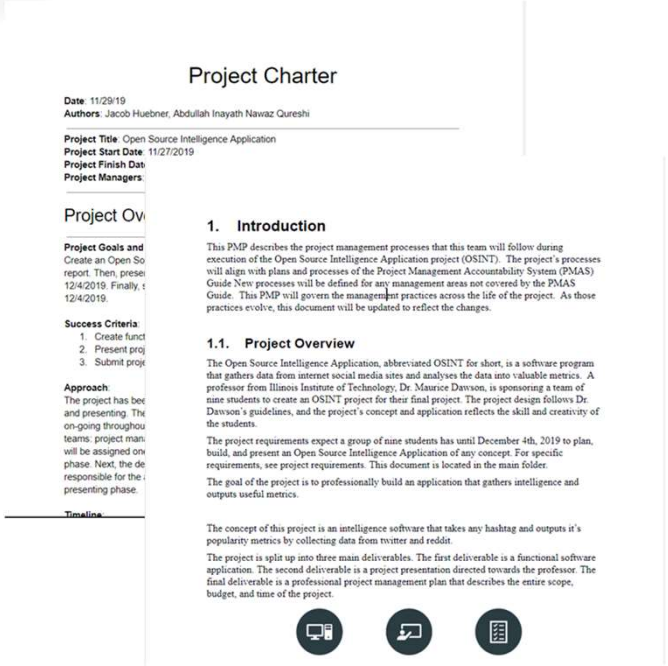
The Open Source Intelligence Application, abbreviated OSINT for short, is a software program that gathers data from internet social media sites and analyses the data into valuable metrics.

Dr. Maurice Dawson, a professor from Illinois Institute of Technology, is sponsoring a team of nine students to create an OSINT application for their final project. The project is to be built following Dr. Dawson's guidelines. The concept for the project is completely up to the students, and reflects their skill and creativity.

The team has until December 4th, 2019 to plan, build, and present an Open Source Intelligence Application of any concept.

The goal of the project is to professionally build an application that gathers intelligence and outputs useful metrics.

The purpose of this project is to learn how to professionally develop an OSINT software program, analyse raw data, and present the software to an audience.



Project Charter

Date: 11/29/19
Authors: Jacob Huebner, Abdullah Inayath Nawaz Qureshi

Project Title: Open Source Intelligence Application
Project Start Date: 11/27/2019
Project Finish Dat
Project Managers

Project Ov

Project Goals and
Create an Open So
report. Then, prese
12/4/2019. Finally,
12/4/2019.

Success Criteria:
1. Create funct
2. Present proj
3. Submit proje

Approach:
The project has bee
and presenting. The
on-going throughou
teams. project man
will be assigned on
phase. Next, the de
responsible for the
presenting phase.

Timeline

1. Introduction

This PMP describes the project management processes that this team will follow during execution of the Open Source Intelligence Application project (OSINT). The project's processes will align with plans and processes of the Project Management Accountability System (PMAS) Guide New processes will be defined for any management areas not covered by the PMAS Guide. This PMP will govern the management practices across the life of the project. As those practices evolve, this document will be updated to reflect the changes.

1.1. Project Overview

The Open Source Intelligence Application, abbreviated OSINT for short, is a software program that gathers data from internet social media sites and analyses the data into valuable metrics. A professor from Illinois Institute of Technology, Dr. Maurice Dawson, is sponsoring a team of nine students to create an OSINT project for their final project. The project design follows Dr. Dawson's guidelines, and the project's concept and application reflects the skill and creativity of the students.

The project requirements expect a group of nine students has until December 4th, 2019 to plan, build, and present an Open Source Intelligence Application of any concept. For specific requirements, see project requirements. This document is located in the main folder.

The goal of the project is to professionally build an application that gathers intelligence and outputs useful metrics.

The concept of this project is an intelligence software that takes any hashtag and outputs it's popularity metrics by collecting data from twitter and reddit.

The project is split up into three main deliverables. The first deliverable is a functional software application. The second deliverable is a project presentation directed towards the professor. The final deliverable is a professional project management plan that describes the entire scope, budget, and time of the project.

See the ITM plan and project charter for more details.

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Jacob

J H, 12/4/2019

Communication and Collaboration

- **Communication**:
  - Gmail
  - Google Hangouts
- **Collaboration**:
  - Google Drive
- **Final Submissions**:
  - Blackboard

Risk Assessment

RISK MANAGEMENT LOG											
Project Name:	OSINT App										
National Center:	<required>										
Project Manager Name:	Anuska Sharma										
Project Description:	ONSIT Dashboard										

RISK MANAGEMENT LOG	
Project Name:	OSINT App
National Center:	<required>
Project Manager Name:	Anushka Sharma
Project Description:	ONSIT Dashboard

ID	Current Status	Risk Impact	Probability of Occurrence	Risk Map	Risk Description	Project Impact	Risk Area	Symptoms	Triggers	Risk Response Strategy
CST001	Closed	High	High	Closed	Current project skill set may not be adequate to complete all project work, with Fifteen days left for the delivery date, current team of four members is not adequate to complete the workload in time.	If required skills are not identified or obtained, project schedule may slip and possibly restrict the accomplishment of project goals.	Project Resources	Schedule approaches the required start date with no identification of required skill sets.	Ten days prior to scheduled start date if no resource is identified with required skill set implement contingency plan.	Mitigation
CST002	Open	High	High	Red	Secret keys are hardcoded into the software	Secret keys hardcoded into the code can be read easily, thus, impacting confidentiality	Security	Software becomes vulnerable to various secuirty attacks	In case of hardcoded secret keys, refer contingency plan	Avoidance
CST003	Closed	High	High	Closed	Raw data generated by developers have write permissions which can be altered by anyone (even the analyst while working on analysis)	If raw data is altered, developer might need to generate the report again	Data/Information	Raw data is altered during analysis	Developer needs to provide fresh raw data	Avoidance
CST004	Closed	High	Medium	Closed	Improper file permissions and ownership to software related files	Unintended users can read/write into software files, modifying the code	Technology	Software code will be modified and back doors can be created	Any sudden change in file size, code length or network traffic	Avoidance

Earned Value Analysis

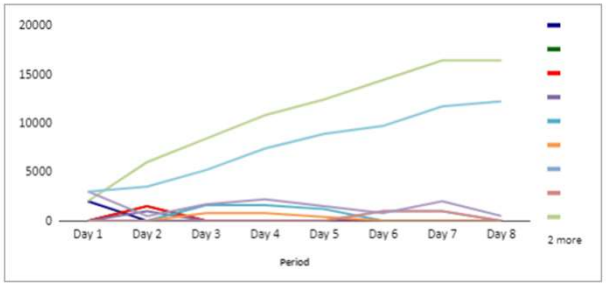
OSINT Application

Earned Value Analysis Report

Prepared By: Abdallah Inayath
Date: 12/3/19

For Period: 11/26/2019 - 12/3/19

Summary:
A planned budgeted cost layed out for all the tasks on a day basis.



Planned Value (PV) or Budgeted Cost of Work Scheduled (BCWS)

WBS	Task Name	TBC	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
1.1	Team Plan	2000	2000	0	0	0	0	0	0	0
1.2	Develop ITM Plan	1500	0	1500	0	0	0	0	0	0
1.3	Finalize ITM Plan	1500	0	1500	0	0	0	0	0	0
2.1	Development Plan	1000	0	1000	0	0	0	0	0	0
2.2	Software Code	4400	0	0	1600	1600	1200	0	0	0
2.3	Software Testing	2000	0	0	800	800	400	0	0	0
3.1	Conduct Analysis	2000	0	0	0	0	0	1000	1000	0
3.2	Generate Analysis Reports	2000	0	0	0	0	0	1000	1000	0
		0								
		0								
		0								
		0								
Insert new rows above this one										
	Total Budgeted Cost	**16400**	2000	4000	2400	2400	1600	2000	2000	0
	Cumulative Planned Value (PV)		2000	6000	8400	10800	12400	14400	16400	16400

Actual Cost and Earned Value

Cumulative Actual Cost (AC)	3000	3500	5200	7400	8900	9700	11700	12200
Cumulative Earned Value (EV)	3000	500	1700	2200	1500	800	2000	500

Planned Cost is 16400.

Actual cost is 12200.

Software Code

Twitter Script

```
def twitter_search():
        s_word = e1.get()
        if s_word == "" :
                l1.configure(text = "No Keyword Entered")
        else:
                #twitter keys
                twitter_keys = open('twitter_keys.txt', 'r')

                consumer_key = twitter_keys.readline().rstrip()
                consumer_secret = twitter_keys.readline().rstrip()
                access_token = twitter_keys.readline().rstrip()
                access_token_secret = twitter_keys.readline().rstrip()
                twitter_keys.close()

                #twitter authorization
                auth = tweepy.OAuthHandler(consumer_key, consumer_secret)
                auth.set_access_token(access_token, access_token_secret)
                api = tweepy.API(auth,wait_on_rate_limit=True)

                #twitter data file
                csvFile1 = open('twitter_data.csv', 'w')
                csvWriter1 = csv.writer(csvFile1)

                #Data collection from twitter
                for tweet in tweepy.Cursor(api.search,q='#'+s_word, count=100, tweet_mode="extended", since=
"2019-11-27").items(1000):
                        csvWriter1.writerow([tweet.user.name, tweet.user.screen_name, tweet.created_at, tweet.full_text,
tweet.favorite_count, tweet.retweet_count])
                l1.configure(text = "Twitter Data Generated")
```

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1 Abdulaziz

Abdulaziz Aldossari, 12/4/2019

Software Code

Reddit Script

```
def reddit_search():
        s_word = e1.get()
        if s_word == "" :
                l1.configure(text = "No Keyword Entered")
        else:
                #reddit keys
                reddit_keys = open('Reddit_keys.txt', 'r')
                CLIENT_ID = reddit_keys.readline().rstrip()
                CLIENT_SECRET = reddit_keys.readline().rstrip()
                USERNAME = reddit_keys.readline().rstrip()
                PASS = reddit_keys.readline().rstrip()
                USER_AGENT  = reddit_keys.readline().rstrip()
                reddit_keys.close()


                #reddit authorization
                reddit = praw.Reddit(client_id = CLIENT_ID,
                             client_secret = CLIENT_SECRET,
                             username = USERNAME,
                             password = PASS,
                             user_agent = USER_AGENT)

                #reddit data file
                csvFile2 = open('reddit_data.csv', 'w')
                csvWriter2 = csv.writer(csvFile2)

                #Data collection from reddit
                subreddit = reddit.subreddit('all').search(s_word,time_filter='day',limit=1000)
                for submission in subreddit:
                        csvWriter2.writerow([submission.author, datetime.utcfromtimestamp(submission.created_utc), submission.title,
submission.score, submission.num_comments, submission.url])
                l1.configure(text = "Reddit Data Generated")
```

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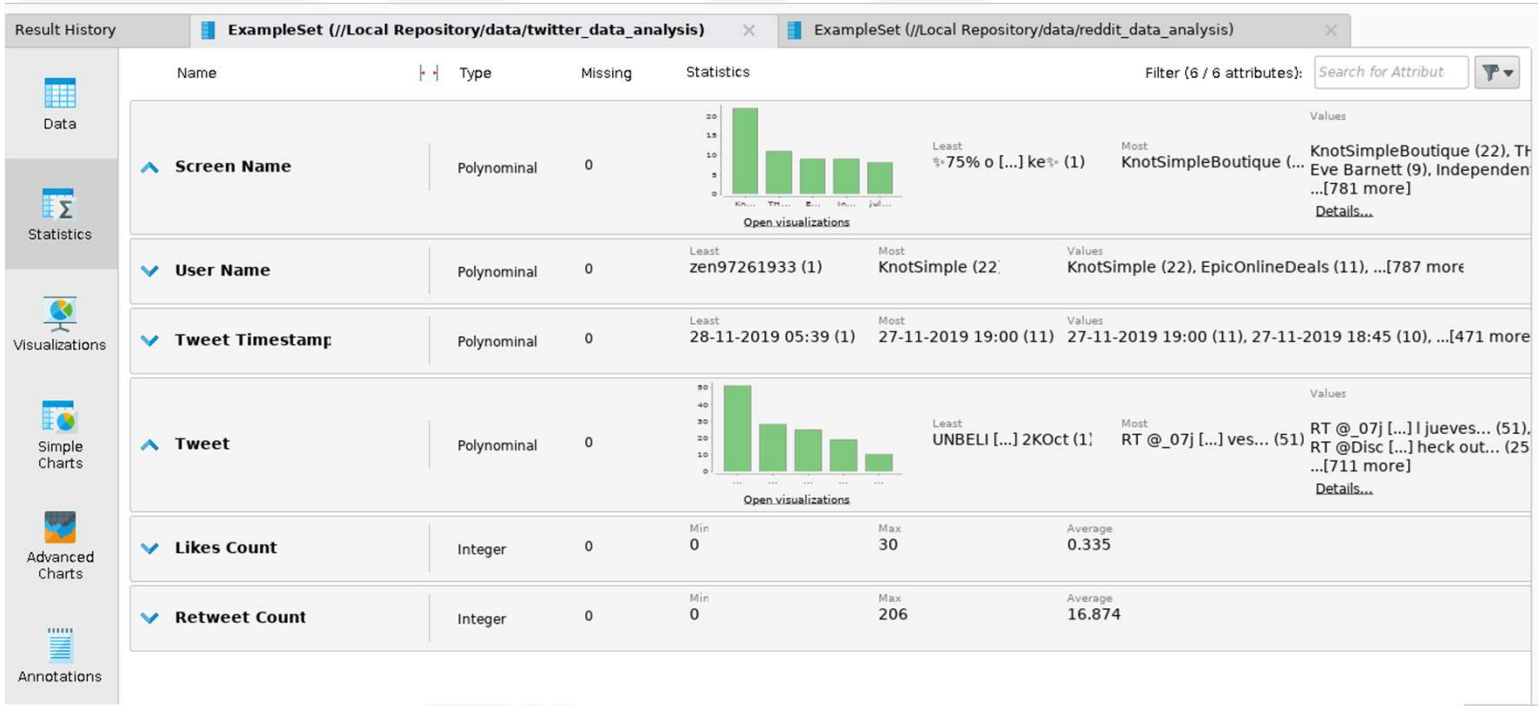
2 Abdulaziz

Abdulaziz Aldossari, 12/4/2019

Analysis Report - Twitter



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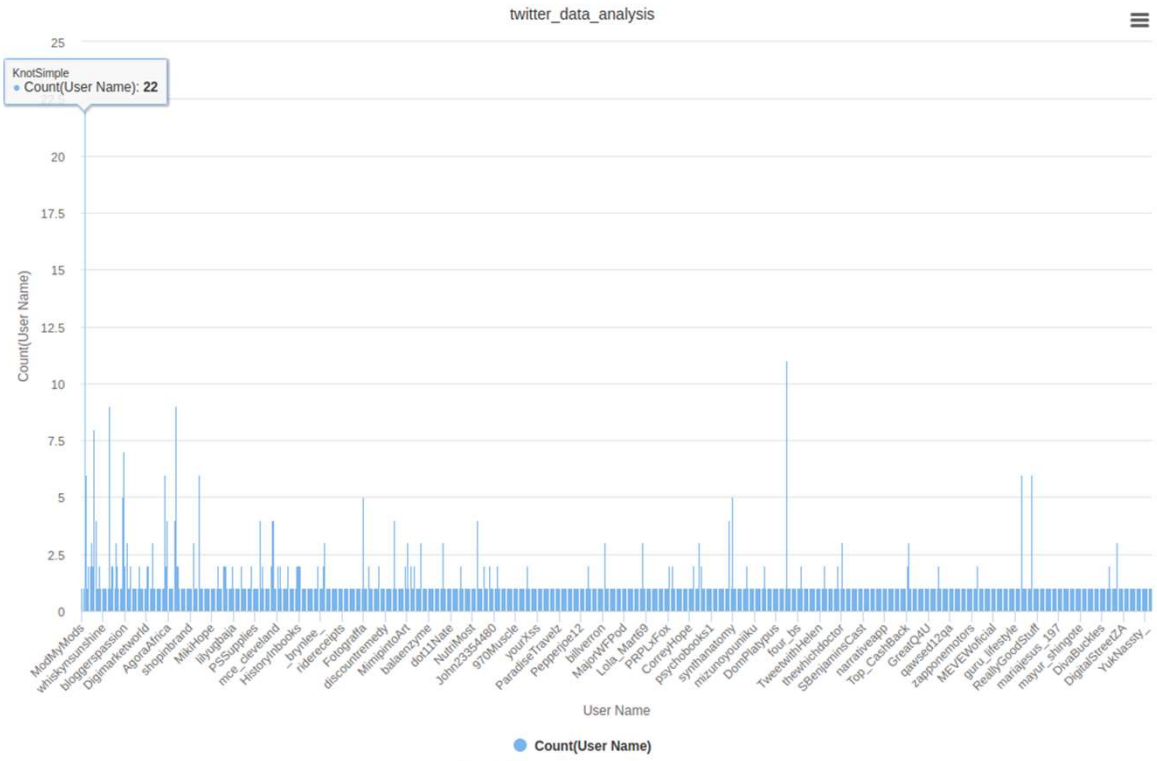
1 Vamsi Jadhav

Vamsi Srinivas Jadhav, 12/4/2019

Analysis Report - Twitter



From all the users that tweeted KnotSimple made maximum tweets

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2 Vamsi Jadhav

Vamsi Srinivas Jadhav, 12/4/2019

Analysis Report - Twitter

Top 5 retweeted posts

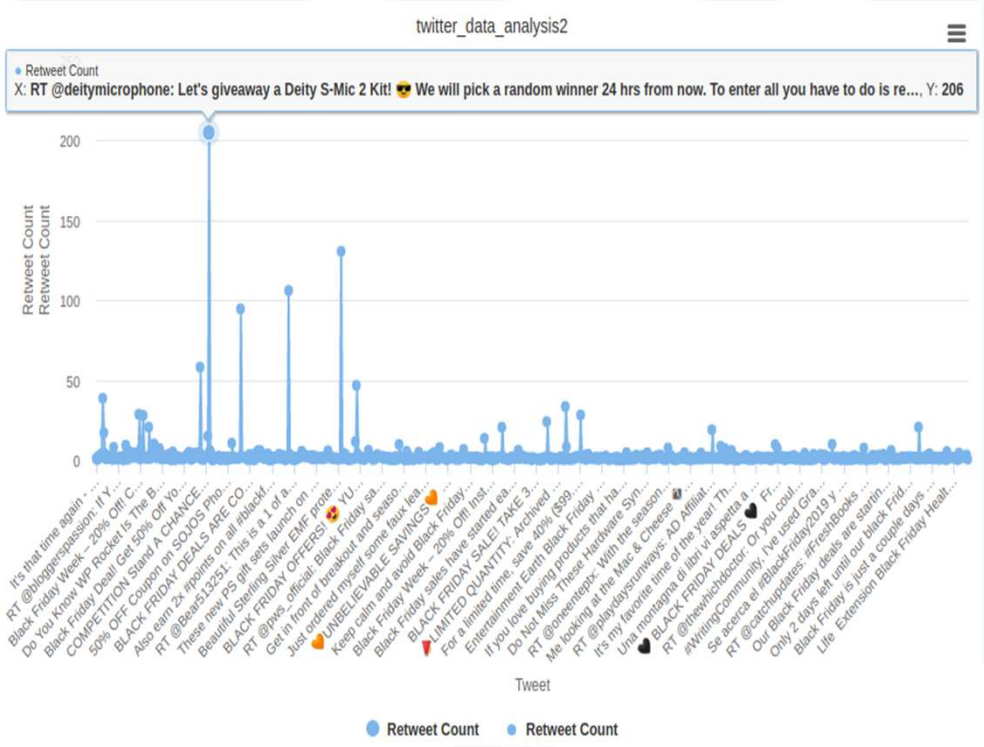
Row No.	Tweet	Retwe... ↓
93	RT @deitymicrophone: Let's giveaway a Deity S-Mic 2 Kit! 😎	206
201	RT @_07jorge: Como se sienten al engañar al consumidor de est...	131
158	RT @darrell_mata: Fonder Children's Magnetic Vegetable Cutting ...	106
119	RT @DiscoverSelf: Connection Between Air Pollution & Being ...	95
86	RT @julianarw: #BlackFriday #sale Starts early on my stores. Che...	56
214	RT @footprintsinpd: Give the gift of a magical vacation through @...	47

Slide 14

3 Vamsi Jadhav

Vamsi Srinivas Jadhav, 12/4/2019

Analysis Report - Twitter

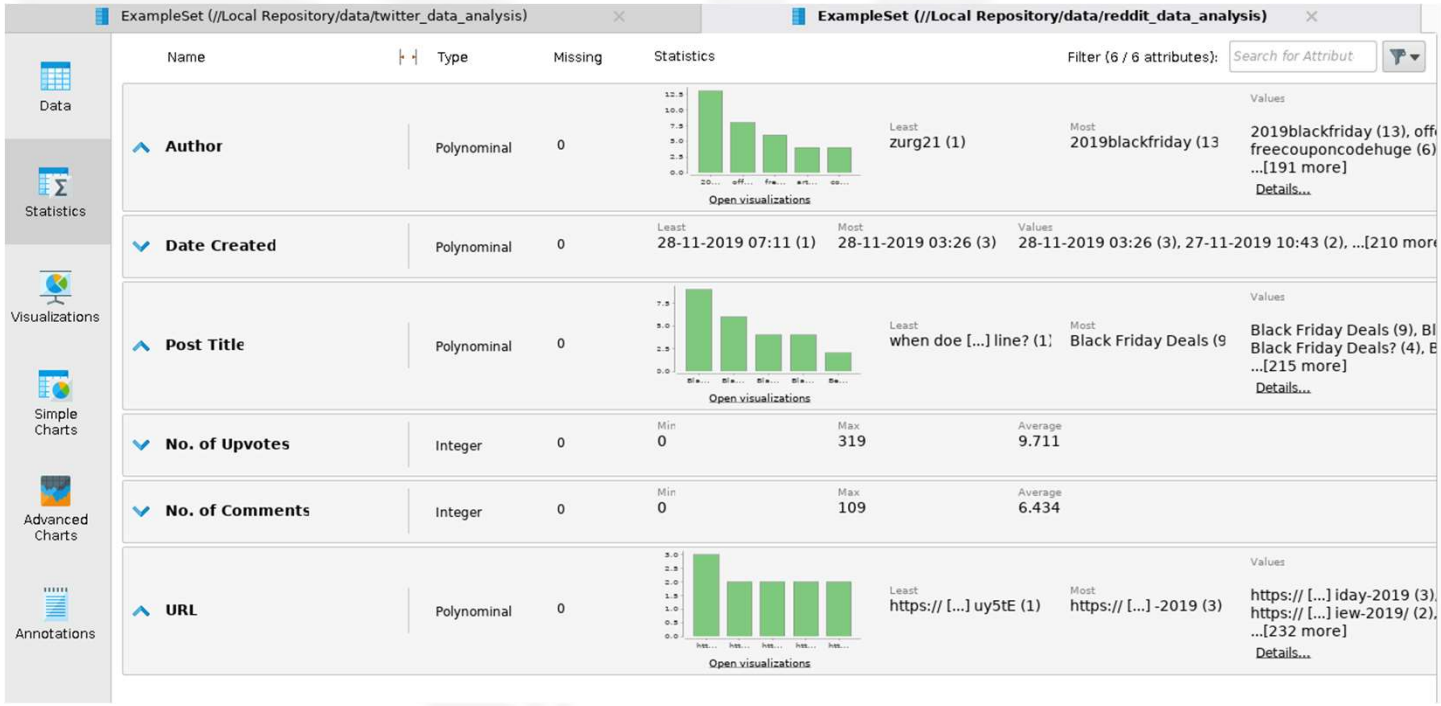


Slide 15

4 Vamsi Jadhav

Vamsi Srinivas Jadhav, 12/4/2019

Analysis Report - Reddit

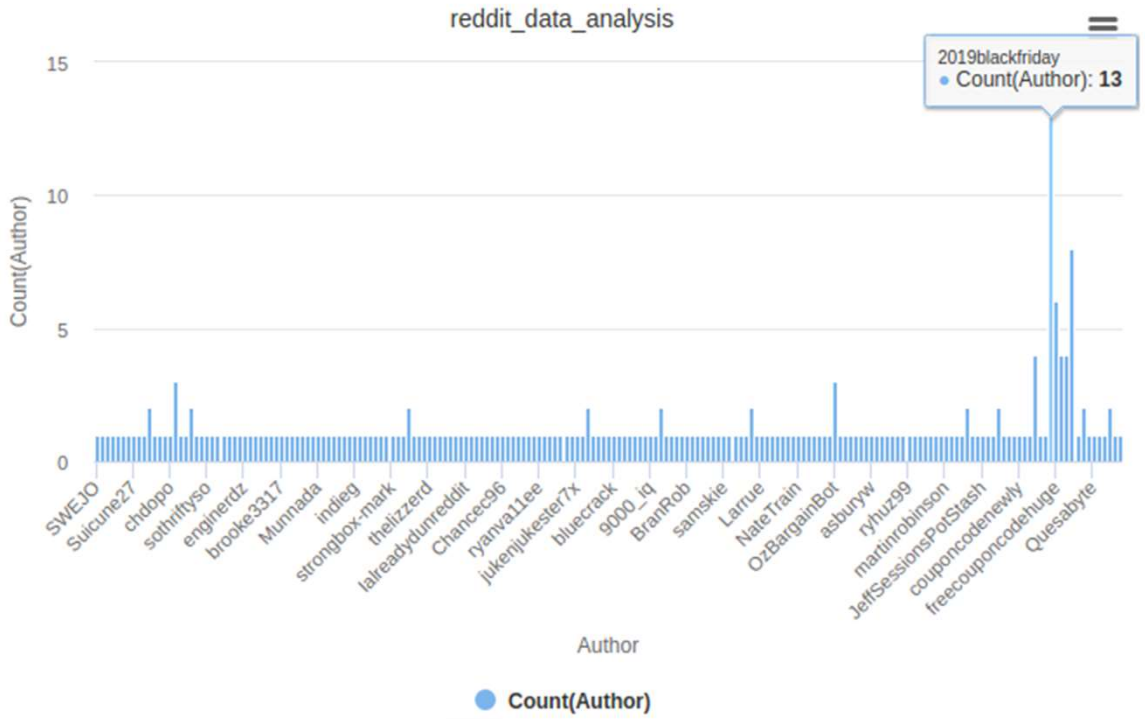


Slide 16

1 Yunhan zhang

Yunhan Zhang, 12/4/2019

Analysis Report - Reddit



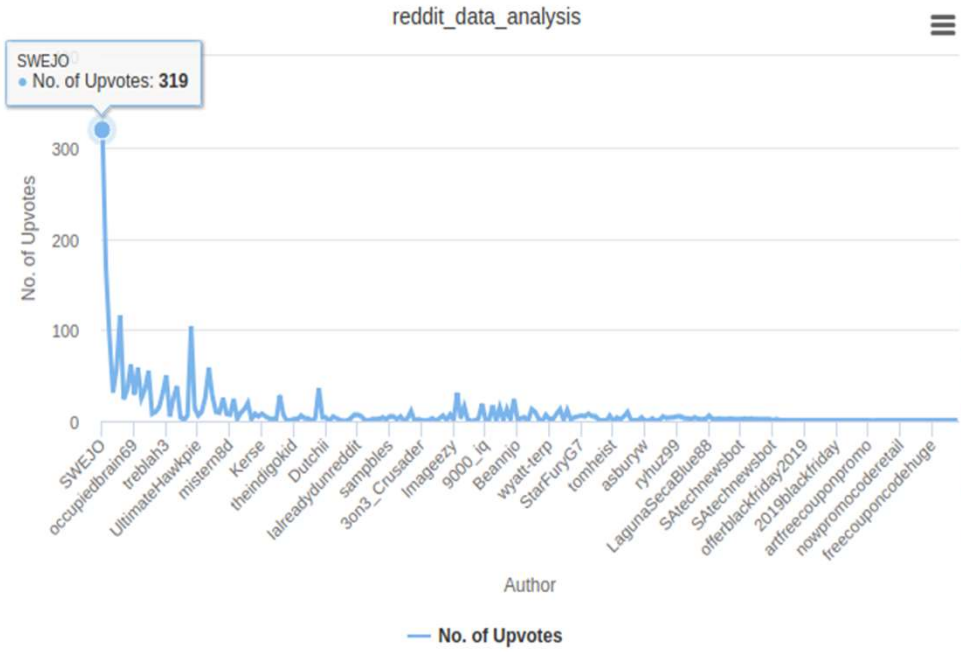
The account 2019blackfriday made maximum posts.

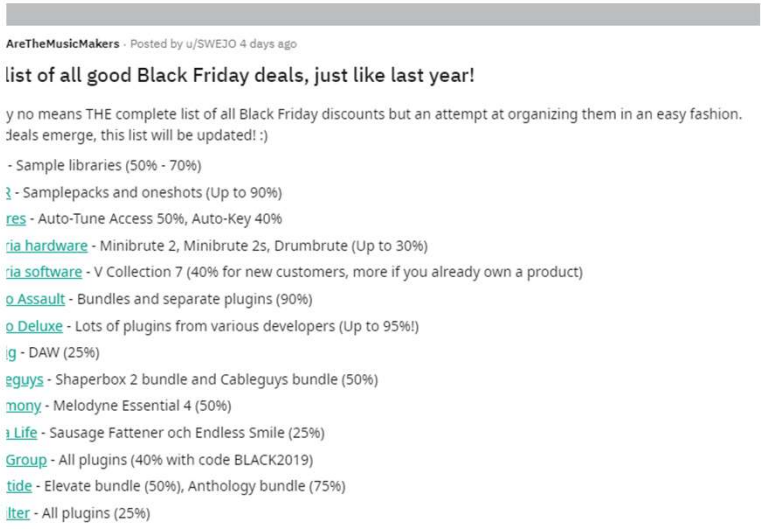
2

+yzhang121@hawk.iit.edu
Yunhan Zhang, 12/4/2019

Analysis Report - Reddit

Post by SWEJO had maximum upvotes





3

+yzhang121@hawk.iit.edu
Yunhan Zhang, 12/4/2019

Live Demonstration

THANK YOU