**Open Source Intelligence Application** 



# **Project Management Plan**

## Department of Information Technology and Management

December 2019 Version 1.4

# **Revision History**

Date	Version	Description	Author
11/27/19	1.0	First draft	Jacob Huebner, Abdullah Inayath
11/30/19	1.1	Second draft	Jacob Huebner
12/2/19	1.2	Third draft	Jacob Huebner
12/3/19	1.3	Fourth draft	Jacob Huebner
12/3/19	1.4	Fifth draft	Abdallah Inayath

Note: The revision history cycle begins once changes or enhancements are requested after the document has been baselined.

# **Artifact Rationale**

The Project Management Plan (PMP), according to the Guide to the Project Management Body of Knowledge (PMBOK®), is a formal, approved document used to guide both project execution and project control. The primary uses of the PMP are to document planning assumptions and decisions, facilitate communication among stakeholders, and document approved scope, cost, and schedule baselines. By showing the major products, milestones, activities and resources required on the project, it is also a statement of how and when a project's objectives are to be achieved.

The project manager creates the PMP following input from the project team and key stakeholders. The plan should be agreed on and approved by at least the project team and its key stakeholders.

The PMP is mandatory for all projects. While it is a project-level document, it should be updated as necessary, including for each increment.

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# 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.



The project is divided into five phases including planning, developing, analysing, presentation, and presenting. The project will complete each phase sequentially, with the exception that planning will be on-going throughout the whole project.



There are five major milestones of the project. They are representative of each project phase and include:

- 3. Generate Report Data 1 and 2
- 4. Generate Analysis Reports 1 and 2
- 5. Finalize Presentation
- 6. Submit ITM Plan & Related Documents
- 7. Present Project to Professor and Class

The project will require three teams, each with three employees. There will be a project management team, a developer team, and an analyst team. The project will require two methods of communication, two methods of collaboration, and one method of submission. The project uses Google Drive, Gmail, Hangouts App and Blackboard.

The project code is accessible at the "Software" folder located in the main folder.

For schedule information, see section 6 titled "Work Breakdown Structure (WBS) and Schedule and budget requirements".

For budget information, see project cost analysis. This document is located in the main folder.

## **1.2.** Scope Statements

See project charter. This document is located in the main folder.

## 1.3. Goals and Objectives

See project charter.

## 1.4. Stakeholders and Key Personnel

See project charter.

## 2. Project Organization

See project charter.

## 3. Acquisition Process

There is no acquisition for the project.

# 4. Monitoring and Control Mechanisms

This project follows standard monitoring and control processes as defined in ProPath for risk management, requirements traceability, and operational readiness.

# 5. Systems Security Plans and Requirements

System security plans and requirements will be developed as part of the project's planning phase.

# 6. Work Breakdown Structure (WBS) and Schedule

See project work breakdown structure. This document is located in the main folder.

For project schedule, see project work breakdown structure. For outdated project schedule, see project concept. This document is located in the main folder.

# 7. Project Success Criteria

See project charter.

# 8. Communication Management Plan

See project communication plan. This document is located in the main folder.

## 9. Risk Management Plan

See project risk management log. This document is located in the main folder.

# 10. Software Configuration Management (SCM) Plan

See the software configuration management plan. This document is located in the main folder.

# 11. Training Plan

The training plan will be developed during the planning and active stages of the project. Training is intended for all new users of the OSINT software.

# 12. Quality Assurance Plan

Quality assurance plan will be developed as part of the project's planning phase.

For an overview of data processes, see the software configuration management plan. This document is located in the main folder.

# 13. Project Measurement Plan

This project is not tracked in PMAS. Project measurement is defined and tracked in sections 13.1 and 13.2 of this document.

## 13.1. Description

The objective of the project should be to develop GUI based software that provides an option to choose which social media (Twitter and Reddit) data to pull. The execution of the software should produce the

raw outputs of posts pulled based on the hashtag (BlackFridayDeal). The software uses python script to pull the posts.

The data pulled from each social media will be time specific and limited with number of records to maximum of 1000 posts. Twitter posts should include the attributes Screen name, Username, Tweet Timestamp, Tweet, Likes count, and Retweet count. Reddit posts should include the attributes Author, Date Created, Post Title, No of Upvotes, No of Comments, and URL.

Information for the measurement data will be analyzed using the tool RapidMiner. The metric for analysis should be the most popular ad, most active user account, most retweeted posts.

The analysis report is provided in word or pdf document with summary of findings.

## **13.2. Performance Measurements**

No	Measurement Name	Measurement Objective	Metric
1	Team	Forming team and assigning roles	10/10
2	Develop ITM plan	Define specific concept and scope	10/10
3	Schedule	Each task status is ready before deadline	10/10
3	Software Development	Execution & Output	10/10
4	Software Development	Security Assurance	10/10
5	Analysis Tool	Tool Reliability	10/10
6	Analysis Reports	Popular Ad and post	10/10

Table: OSINT Performance Measurements

## 14. Reference Materials

### a. Project charter

# **Project Charter**

Last Revised Date: 11/29/19

Authors: Jacob Huebner, Abdullah Inayath Nawaz Qureshi, Anushka Sharma

Project Title: Open Source Intelligence Application
Project Start Date: 11/27/2019
Project Finish Date: 12/4/2019
Project Managers: Anushka Sharma, Abdullah Inayath Nawaz Qureshi, Jacob Huebner

# **Project Overview**

### **Project Goals and Objectives:**

Create an Open Source Intelligence Application that collects intelligence and generates a report. Then, present your findings to the Professor with a slide show and live presentation on 12/4/2019. Finally, submit a comprehensive project management plan to the professor before 12/4/2019.

### Success Criteria:

- 1. Create functional Open Source Intelligence Application program before 12/4/19.
- 2. Present project presentation to the Professor on 12/4/19.
- 3. Submit project management plan to the Professor by 12/4/2019.

### Approach:

The project has been divided into five phases: planning, developing, analysing, presentation, and presenting. The phases will be completed sequentially, except for planning which will be ongoing throughout the project. The nine team members will be divided into three smaller teams: project managers, developers, and analysts. Each sub-team will have one leader, and will be assigned one phase to work on. First, project managers are responsible for the planning phase. Next, the developers are responsible for the developing phase. Finally, the analysts are responsible for the analysing phase. All teams are responsible for the presentation and presenting phase.

### Timeline:



### Roles and Responsibilities:

Name	Roles	Email
Jacob Huebner	Lead Project Manager	jhuebner@hawk.iit.edu
Anushka Sharma	Project Manager	asharma30@hawk.iit.edu
Abdallah Inayath Nawaz Qureshi	Project Manager	ainayathnawazqureshi@hawk. iit.edu
Sai Siva Satwik Kommi	Lead Developer	skommi@hawk.iit.edu
Abdulaziz Aldossari	Developer	aaldossari@hawk.iit.edu
Palaniappan Senthilnathan	Developer	psenthilnathan@hawk.iit.edu
Vamsi Srinivas Jadhav	Analyst	vjadhav@hawk.iit.edu
Kelly Perez	Analyst	kperez4@hawk.iit.edu
Yunhan Zhang	Analyst	yzhang121@hawk.iit.edu

### General Tasks and Deadlines:

Roles	Deliverables	Deadlines
Project Managers	Team Plan	11-28-19
	ITM Plan	12-2-19
	Risk Management Log	12-2-19
	Cost Evaluation	12-2-19
Developers	Logical Design	11-28-19
	OSINT Software	11-29-19
	Data Report #1 (Twitter)	11-29-19

	Data Report #2 (Reddit)	11-29-19
Analysts	Analysis Report #1 (Twitter)	12-1-19
	Analysis Report #2 (Reddit)	12-1-19
All	Presentation Power-point	12-2-19
	Practice Presentation	12-3-19

## Scope Statement

### Justification:

Dr. Maurice Dawson, a professor Illinois Institute of Technology, has assigned a team of nine of his students to create an Open Source Intelligence Application for their ITMS 548/448 Cyber Security Technologies class final project. Dr. Dawson expects the team to design a software program, create a project management plan, analyze the results, create a report of the findings, and then present the findings to the professor.

### Stakeholders and Key Personnel:

Categories	Name	Role
Organization	Illinois Institute of Technology	Sponser
Staff	Dr. Maurice Dawson	Professor
Students	Jacob Huebner	Lead Project Manager
	Anushka Sharma Project Manager	
	Abdallah Inayath Nawaz Qureshi	Project Manager
	Sai Siva Satwik Kommi	Lead Developer
	Abdulaziz Aldossari	Developer
	Palaniappan Senthilnathan	Developer
	Vamsi Srinivas Jadhav	Analyst

Kelly Perez	Analyst
Yunhan Zhang	Analyst

### Scope of Work:

Professor Maurice Dawson of ITMS 548/448 Cyber Security Technologies has tasked a group of nine students with creating an Open Source Intelligence Application as a final project. The team's application must collect intelligence from two social media sources, conduct an analysis of the data, and then produce an analysis report. The team is expected to complete several tasks including: create a concept, develop a process for collecting intel data, create a limited prototype of an OSINT dashboard, develop a dashboard, create a software program, generate a report for report analysis, and present report and findings.

The team is expected to create a comprehensive project management plan for the project. A template has been provided. The project plan must include detailed documentation and planning. Once the project plan and the OSINT software program is complete, the team is expected to present the results of the analysis to the professor. The presentation must include a live demonstration of the OSINT software.

The purpose of this project is to professionally develop an OSINT software program, analyse raw data, and present the software to an audience. The OSINT software program will be created by a team of three developers using python and Google Drive to collaborate. Professional documentation and planning will be achieved by a team of three project managers using Microsoft Office, Google Docs, and Google Drive to collaborate. The raw data will be analysed by a team of three analysts using Report Miner and Google Drive to collaborate. Finally, all three teams will collaborate to create the final presentation. Furthermore, the project managers will finalize the project management documents before submitting them to the Professor.

### Project Goals and Objectives:

The goal of this project is to create an Open Source Intelligence Application that collects intelligence and generates a report. Then, present your findings to the Professor with a slide show and live presentation on 12/4/2019. Finally, submit a comprehensive project management plan to the professor before 12/4/2019.

### **Project Characteristics and Requirements:**

- 1. Create a concept.
- 2. Develop a process for collecting intel data.
- 3. Create a limited prototype of an OSINT dashboard.
- 4. Develop a dashboard.
- 5. Create a software program that works with at least 2 social medias.
- 6. Generate a report for report analysis.
- 7. Present report and findings.

### Project User Acceptance Criteria:

1. Create functional Open Source Intelligence Application program before 12/4/19.

- 2. Present project presentation to the Professor on 12/4/19.
- 3. Submit project management plan to the Professor by 12/4/2019.

### Summary of Project Deliverables:

Project Management Related Deliverables

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

### Development Related Deliverables

- 6. Logical Design
- 7. OSINT Software
- 8. OSINT Software Script (Twitter & Reddit)
- 9. Live Software Demonstration
- 10. Report Data #1 Twitter
- 11. Report Data #1 Reddit

### Analysis Related Deliverables

- 12. Analysis Report #1 Twitter
- 13. Analysis Report #2 Reddit
- 14. OSINT Presentation

### Project Concept:

- 1. Record all posts with #BlackFridayDeals on Twitter and Reddit.
- 2. Output an excel sheet with the raw data.
- 3. Analyze the raw data. Sort and record measures. (i.e. popularity).
- 4. Output a final analysis report including the measures.

See project concept. It is located in the main folder.

## b. Project concept

# **Project Concept**

Authors: Jacob Huebner, Abdullah Inayath Nawaz Qureshi

### Concept:

- 1. Record all posts with #BlackFridayDeals on Twitter and Reddit.
- 2. Each post will record id, date, content, views, likes, shares, link, and hashtags.
- 3. Next, the data will be sorted. (top posts, links, poster).
- 4. Finally, the analysis can measure popularity, likelihood of scamming, free.

#### Measurement:

- Popularity (Poster)
- Popularity (Link)
- Popularity (related Hashtags)
- Likelihood of being a scam

#### **Deliverables:**

- Project Managers
  - ITM Plan
  - Risk Management Log
  - Cost Evaluation
- Developers
  - Logical Design (processes, flowcharts, and descriptions)
  - GUI (dashboard)
  - Software Code
- Analysis Report
  - Analysis Report
- All
  - Presentation (and practice live demonstration)

#### Estimated Deadlines:

Roles	Deliverables	Deadlines
Project Managers	ITM Plan	11-27-19
	Risk Management Log	12-1-19
	Cost Evaluation	12-1-19

Developers	Logical Design (processes, flowcharts, and descriptions)	11-29-19
	GUI (dashboard)	11-30-19
	Software Code	12-1-19
Analysts	Analysis Report #1 (Twitter)	12-1-19
	Analysis Report #2 (Reddit)	12-1-19
All	Presentation Power-point	12-2-19
	Practice Presentation	12-3-19

### Preliminary Work Breakdown Structure:

- 1. ITM Plan
- 2. Risk Management Log
- 3. Cost Evaluation
- 4. Logical Design
- 5. GUI
- 6. Software Code
- 7. Analysis Report #1 (Twitter)
- 8. Analysis Report #2 (Reddit)
- 9. Presentation Power-point
- 10. Practice Presentation

### Estimated Task Traceability Matrix:

Task	Resource	Deadline	Status
1. ITM Plan	<b>Jacob</b> Abdallah	11-27-19	Ready
2. Risk Management Log	<b>Abdallah</b> Jacob	12-1-19	Partial
3. Cost Evaluation	<b>Anushka</b> Pal	12-1-19	Not Ready

4. Logical Design	<b>Satwik</b> Abdulaziz Abdallah	11-29-19	Ready
5. GUI	<b>Sathwik</b> Abdulaziz	11-30-19	Ready
6. Software Code	<b>Satwik</b> Abdulaziz	12-1-19	Ready
7. Analysis Report #1	<b>Vamsi</b> Abdallah	12-1-19	Ready
8. Analysis Report #2	<b>Kelly</b> Pal Yunhan	12-1-19	Ready
9. Presentation Power-point	<b>Abdallah</b> Jacob Kelly Yunhan	12-2-19	Partial
10. Demonstration practice	Everyone	12-3-19	Not Ready

### c. Work Breakdown Structure

# Work Breakdown Structure (WBS)

Date: 11/2/19

Authors: Jacob Huebner, Abdallah Inayath

## 1.Work Breakdown Structure and Gantt Chart

See work breakdown structure MPP. It is located in the main folder.

ask Aode 🔹	Task Name	Duration -	Start	Finish 👻	W T	F	S S		w	T F	Dec 1, '19 S S	W T N	т
2	+1.Planning							_					_
n	+1.1.Team Plan												
e	1.1.1.Form Team	1 day	Wed 11/27/19	Wed 11/27/19									
1	1.1.2.Communication Plan	1 day	Wed 11/27/19	Wed 11/27/19					1				
1	1.1.3.Requirements	1 day	Tue 11/26/19	Tue 11/26/19				1.1					
1	1.1.4.Concept	1 day	Wed 11/27/19	Wed 11/27/19					1 and				
1	1.1.5.Timesheet	1 day	Wed 11/27/19	Wed 11/27/19					ř.				
4	+1.2.Develop ITM Plan									_		_	
*	1.2.1.ITM Plan	4 days	Thu 11/28/19	Tue 12/3/19					i i				
1	1.2.2.Risk Management Log	4 days	Thu 11/28/19	Tue 12/3/19					i i				
1	1.2.3.Cost Evaluation	1 day	Mon 12/2/19	Mon 12/2/19							5		
•	1.2.4.Charter	1 day	Thu 11/28/19	Thu 11/28/19					i				
1	1.2.5.Scope Statement	1 day	Fri 11/29/19	Fri 11/29/19						i and			
e	1.2.6.Work Breakdown Structure (WBS)	1 day	Mon 12/2/19	Mon 12/2/19							1		
•	1.2.7.Schedule	1 day	Mon 12/2/19	Mon 12/2/19							1		
4	1.3.Finalize ITM Plan												
1	1.3.1.Finalize ITM Plan & Related Documents	1 day	Tue 12/3/19	Tue 12/3/19								i i i i i i i i i i i i i i i i i i i	
¢	1.3.2.Submit ITM Plan & Related Documents	0 days	Tue 12/3/19	Tue 12/3/19								12/3	
¢?	2.Developing									_	_		_
Ŷ	+2.1.Development Plan								1		_	_	
e	2.1.1.Logical Design	1 day	Thu 11/28/19	Thu 11/28/19					i i				
¢	2.1.2.GUI	1 day	Thu 11/28/19	Thu 11/28/19					1				
¢	2.1.3.Software Configuration Management (SCM) Plan	1 day	Mon 12/2/19	Mon 12/2/19							)		
\$	+2.2.Software Code									_			
¢	2.2.1.OSINT Software	2 days	Thu 11/28/19	Fri 11/29/19									
e	2.2.2.OSINT Software Script #1 - Twitter	2 days	Thu 11/28/19	Fri 11/29/19					1				
•	2.2.3.OSINT Software Script #2 - Reddit	2 days	Thu 11/28/19	Fri 11/29/19					- 4				
4	+2.3.Generate Raw Data Reports									_		-	
e	2.3.1.Report Data #1 - Twitter	0 days	Thu 11/28/19	Thu 11/28/19						• 11/28			
¢	2.3.2.Report Data #1 - Reddit	0 days	Thu 11/28/19	Thu 11/28/19						• 11/28			
٠	2.3.3.Code Live Software Demonstration	1 day	Mon 12/2/19	Mon 12/2/19							1		
\$	3.Analysing									_		_	_
¢?	+3.1.Analysis Plan									_			
	2.1.1 Measurement Plan	1 day	Thu 11/20/10	Thu: 11/30/10	4								

Preview of "Work Breakdown Structure MPP"

### 2.Work Breakdown Structure

### Work Breakdown Structure:

- 3. Planning
  - 3.1. Team Plan
    - 3.1.1. Form Team
    - 3.1.2. Communication Plan
    - 3.1.3. Requirements
    - 3.1.4. Concept
  - 3.2. Develop ITM Plan
    - 3.2.1. ITM Plan
    - 3.2.2. Risk Management Log
    - 3.2.3. Cost Evaluation

- 3.2.4. Charter
- 3.2.5. Scope Statement
- 3.2.6. Work Breakdown Structure (WBS)
- 3.2.7. Schedule
- 3.3. Finalize ITM Plan
  - 3.3.1. Finalize ITM Plan & Related Documents
  - 3.3.2. Submit ITM Plan & Related Documents
- 4. Developing
  - 4.1. Development Plan
    - 4.1.1. Logical Design
    - 4.1.2. GUI
    - 4.1.3. Software Configuration Management (SCM) Plan
  - 4.2. Software Code
    - 4.2.1. OSINT Software
    - 4.2.2. OSINT Software Script #1 Twitter
    - 4.2.3. OSINT Software Script #2 Reddit
  - 4.3. Generate Raw Data Reports
    - 4.3.1. Report Data #1 Twitter
    - 4.3.2. Report Data #1 Reddit
    - 4.3.3. Code Live Software Demonstration
- 5. Analysing
  - 5.1. Analysis Plan
    - 5.1.1. Measurement Plan
  - 5.2. Generate Analysis Reports
    - 5.2.1. Analysis Report #1 Twitter
    - 5.2.2. Analysis Report #2 Reddit
- 6. Presentation
  - 6.1. Presentation Slides
    - 6.1.1. Create Slides
    - 6.1.2. Design Presentation
    - 6.1.3. Finalize Presentation
  - 6.2. Practice Presentation
    - 6.2.1. Practice Presentation live before class
- 7. Presenting
  - 7.1. Present Project Live
    - 7.1.1. Present to professor and class
    - 7.1.2. Present live demonstration

## 8.Work Breakdown Structure Table

Work Breakdown Structure Table:			
Task Name	Duration	Start	Finish
1.Planning			
1.1.Team Plan			
1.1.1.Form Team	1 day	Wed 11/27/19	Wed 11/27/19
1.1.2.Communication Plan	1 day	Wed 11/27/19	Wed 11/27/19
1.1.3.Requirements	1 day	Tue 11/26/19	Tue 11/26/19
1.1.4.Concept	1 day	Wed 11/27/19	Wed 11/27/19
1.2.Develop ITM Plan			
1.2.1.ITM Plan	4 days	Thu 11/28/19	Tue 12/3/19
1.2.2.Risk Management Log	4 days	Thu 11/28/19	Tue 12/3/19
1.2.3.Cost Evaluation	1 day	Mon 12/2/19	Mon 12/2/19
1.2.4.Charter	1 day	Thu 11/28/19	Thu 11/28/19
1.2.5.Scope Statement	1 day	Fri 11/29/19	Fri 11/29/19
1.2.6.Work Breakdown Structure (WBS)	1 day	Mon 12/2/19	Mon 12/2/19
1.2.7.Schedule	1 day	Mon 12/2/19	Mon 12/2/19
1.3.Finalize ITM Plan			
1.3.1.Finalize ITM Plan & Related Documents	1 day	Tue 12/3/19	Tue 12/3/19
1.3.2.Submit ITM Plan & Related Documents	0 days	Tue 12/3/19	Tue 12/3/19

2.Developing			
2.1.Development Plan			
2.1.1.Logical Design	1 day	Thu 11/28/19	Thu 11/28/19
2.1.2.GUI	1 day	Thu 11/28/19	Thu 11/28/19
2.1.3.Software Configuration Management (SCM) Plan	1 day	Mon 12/2/19	Mon 12/2/19
2.2.Software Code			
2.2.1.OSINT Software	2 days	Thu 11/28/19	Fri 11/29/19
2.2.2.OSINT Software Script # <sup>/</sup> - Twitter	l 2 days	Thu 11/28/19	Fri 11/29/19
2.2.3.OSINT Software Script #2 - Reddit	22 days	Thu 11/28/19	Fri 11/29/19
2.3.Generate Raw Data Reports			
2.3.1.Report Data #1 - Twitter	0 days	Thu 11/28/19	Thu 11/28/19
2.3.2.Report Data #1 - Reddit	0 days	Thu 11/28/19	Thu 11/28/19
2.3.3.Code Live Software Demonstration	1 day	Mon 12/2/19	Mon 12/2/19
3.Analysing			
3.1.Analysis Plan			
3.1.1.Measurement Plan	1 day	Thu 11/28/19	Thu 11/28/19
3.2.Generate Analysis Reports			
3.2.1.Analysis Report #1 - Twitter	0 days	Mon 12/2/19	Mon 12/2/19
3.2.2.Analysis Report #2 - Reddit	0 days	Mon 12/2/19	Mon 12/2/19
4.Presentation			

4.1.Presentation Slides			
4.1.1.Create Slides	1 day	Thu 11/28/19	Thu 11/28/19
4.1.2.Design Presentation	2 days	Fri 11/29/19	Mon 12/2/19
4.1.3. Finalize Presentation	0 days	Mon 12/2/19	Mon 12/2/19
4.2.Practice Presentation			
4.2.1.Practice Presentation live before class	1 day	Tue 12/3/19	Tue 12/3/19
5.Presenting			
5.1.Present Project Live			
5.1.1.Present to professor and class	1 day	Wed 12/4/19	Wed 12/4/19
5.1.2.Present live demonstration	1 day	Wed 12/4/19	Wed 12/4/19

## d. Project communication plan

# **Project Communication Plan**

Date: 11/27/19 Authors: Jacob Huebner

### Stakeholders:

Stakeholders for the OSINT project are divided into three categories: Organizations, Staff, and Students. The organization sponsoring the project is the Illinois Institute of Technology in Chicago, IL. The Illinois Institute of Technology, commonly known as IIT, is hosting it's fall 2019 ITMS 548/448 Cyber Security Technologies class. The IIT staff member in charge of ITMS 548/448 is Dr. Maurice Dawson. Professor Dawson has assigned a team of nine IIT students to the project. The names of the stakeholders include...

- Organization Illinois Institute of Technology, or IIT
- Staff Dr. Maurice Dawson
- Student Jacob Huebner
- Student Anushka Sharma
- Student Abdallah Inayath Nawaz Qureshi
- Student Sai Siva Satwik Kommi
- Student Abdulaziz Aldossari
- Student Palaniappan Senthilnathan
- Student Vamsi Srinivas Jadhav
- Student Kelly Perez
- Student Yunhan Zhang

#### **Roles and Responsibilities:**

Name	Role	Email
Dr Maurice Dawson	Professor	mdawson2@iit.edu
Jacob Huebner	Lead Project Manager	jhuebner@hawk.iit.edu
Anushka Sharma	Project Manager	asharma30@hawk.iit.edu
Abdallah Inayath Nawaz Qureshi	Project Manager	ainayathnawazqureshi@hawk. iit.edu
Sai Siva Satwik Kommi	Lead Developer	skommi@hawk.iit.edu
Abdulaziz Aldossari	Developer	aaldossari@hawk.iit.edu
Palaniappan Senthilnathan	Developer	psenthilnathan@hawk.iit.edu
Vamsi Srinivas Jadhav	Lead Analyst	vjadhav@hawk.iit.edu
Kelly Perez	Analyst	kperez4@hawk.iit.edu
Yunhan Zhang	Analyst	yzhang121@hawk.iit.edu

### Stakeholder requirements:

- 1. All team members will need to communicate together.
- 2. All team members will communicate through two centralized methods.
- 3. All team members will need to collaborate together.
- 4. All team members will collaborate through two centralized methods.
- 5. The team leaders will need to communicate to the professor.
- 6. The team leaders will need to submit the project to the professor through one centralized method.

### **Communication Methods:**

### 1. Communication

- **1.1. Google Hangouts**: The primary communication method is through Google Hangouts. Team members are expected to communicate through text over Google Hangouts. A group chat has been created and can be accessed through this link. (link)
- **1.2. Gmail:** The secondary communication method is through Gmail. Team members are expected to communicate through email over Gmail. Group members can directly message individuals, or send emails to all members. The emails of each team member is listed on page one, titled Roles and Responsibilities.

### 2. Collaboration

- **2.1. Shared Google Drive**: The primary collaboration method is through a Shared Google Drive. Team members are expected to collaborate by accessing the Shared Google Drive. Any and all deliverables are to be kept in the drive. The Shared Google Drive can be accessed through this link. (link)
- **2.2. Github**: The secondary collaboration method is through Github. Team members who are developers are expected to publish their final code to a Github repository. A Github organization has been created for this project and can be accessed through this link. (<u>link</u>)

### 3. Final Submission

**3.1. Blackboard**: The primary final submission method is through Blackboard. Lead team members are expected to compile all of the team's work, finalize it, and then submit it to the professor through blackboard. The Blackboard can be accessed through this link. (<u>link</u>)

### Frequency:

Team members are expected to communicate with other team members daily. Team members are also expected to directly message team members who share the same role as them.

Stakeholders	Document Name	Document Format	Communication Method
Project Managers	Project Management Documentation	Google Doc, Slide, or Sheet	Shared Google Drive
Developers	Project Code Documentation	Google Doc, Slide, or Sheet	Shared Google Drive
Developers	Project Code	Any	Shared Google Drive
Developers	Final Project Code	Any	Github
Analysts	Analysis Report #1	Google Doc, Slide, or Sheet	Shared Google Drive
Analysts	Analysis Report #2	Google Doc, Slide, or Sheet	Shared Google Drive
All Team Members	Final Presentation	Google Doc, Slide, or Sheet	Shared Google Drive
Team Leaders	Final Submission	Multiple Google Docs, Slides, or Sheets, PDFs, or Archived files	Blackboard

### Stakeholder Communication Analysis:

# e. Project Risk Management Log Project Risk Management Log

Date: 11/2/19

Authors: Jacob Huebner, Abdallah Inayath

## Project Risk Management Log

See Project Risk Management Log excel file. It is located in the main folder.



### Link to "Project Risk Management Log"

RISK	IANAGE	MENT	LOG					RISK MANAGEMENT L	OG
Vational Center: <		OSINT App					Project Name:	OSINT App	
		<required></required>					National Center:	<required></required>	
Project Ma	inager Name	e	Anuska Sharma					Project Manager Name:	Anushka Sharma
Project Description:		ONSIT Dashboard					Project Description:	ONSIT Dashboard	
ID	Current Status	Risk Impact	Probability of Occurrence	Risk Map	Risk Description	Project Impact	Risk Area	Symptoms	Triggers
CST001	Closed	High	High		Current project skill set may not be adequate to complete all project work, with Fifteen days left for the del/very 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.
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
CST003	Closed	High	High		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 rav data
CST004	Closed	High	Medium		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
CST005	Open	High	High	Red	Time sheet not being filled for completed tasks	If timesheet is not filled for completed tasks, the cost evaluation team will not be able to provide accurate report regarding finances	Business	Resources are failing to fill timesheet at the end of the day after completing their tasks	If a particular resource does to fill in the timesheet, manager needs to follow-up on the resource
CST006	Open	Medium	Medium		No validation on input received by the software	Effects the output data files and have potential to retrieve unwanted data	Reliability of Systems	Output data files will be floooded with unwanted data	improper data formats and unusual sizes of output data
CST007	Open	Low	Low		Deadline approaching soon, Assign helper tasks to idle resources - utilize all idle workers to the maximum.	With limited time constraint, pulling resources from different specialties gets work done faster	Project Resources	rescources finish their task and wait for next phase or rescources phase is not yet begun	When a rescource is overloaded with work and next phase has to be started

Preview of "Project Risk Management Log"

## f. Software Configuration Management (SCM) Plan

## Project Software Configuration Management (SCM) Plan

### Date: 12/3/19

Authors: Jacob Huebner, Abdallah Inayath

The code for the Open Source Intelligence Applications is published to Google drive. It can be accessed through OSINT Data Tool.py

### **Description:**

The goal of the project is to professionally build an application that gathers intelligence and outputs useful metrics. This project is an intelligence software that takes any hashtag and outputs it's popularity metrics by collecting data from Twitter and Reddit.

### **Development**:

The software should be GUI based providing an option to choose which social media (Twitter and Reddit) data to pull. The execution of the software should produce the raw outputs of posts pulled based on the hashtag.

### Measurements:

Twitter:

- 1. The time period for pulling the data should be between 27/11/19 18:00 and 28/11/19 6:00.
- 2. Use the hashtag #BlackFridayDeals
- 3. Post pulled from twitter will be 1000 posts only.
- 4. The pulled posts should contain the attributes Screen name, Username, Tweet Timestamp, Tweet, Likes count, and Retweet count.

Reddit:

- 1. The time period for pulling the data should be between 27/11/2019 7:00 to 28/11/2019 8:00.
- 2. String used "Black Friday Deals"
- 3. Posts pulled should not be more than 1000.
- 4. The pulled posts should contain the attributes Author, Date Created, Post Title, No of Upvotes, No of Comments, and URL.

### Execution:

The application searches for the hashtag "#BlackFridayDeals" and reports back specific measurements.

- 1. The application searches Twitter and Reddit for all posts with #BlackFridayDeals.
- 2. Each post is recorded and added to a database of raw data.
- 3. The raw out files are generated.

### Quality Assurance:

- 1. The software should be tested with user associated vulnerabilities.
- 2. Test the associated vulnerabilities during the execution.
- 3. Test if the source code includes a piece of privileged information.

### Video Demonstration:

Here is a video demonstration: <u>Software Demonstration.mp4</u>

## **Approval Signatures**

## 15. Project Plan Approval

The signatures below indicate that the undersigned:

- Have reviewed the Project Plan.
- Have formally voiced applicable concerns to the PM.
- Concur that the Project Plan accurately represents their expectations and conditions required for the project.
- Are committed to providing the required resources.
- Are unaware of undocumented conditions that prevent the success of this project.

#### **REVIEW DATE: 12/3/19**

SCRIBE: Jacob Huebner

Signed:

Lead Project Manager

Signed:

**Business Sponsor** 

Date

Date