**OS INT**

**Project Management Plan**



**Department of Informat**ion Technology and Management

**April 2020**

**Version**

**Artifact Rationale**

Through this Project much was learned about the relationships between Social Media and Cyber Security. Our task was to create a process for collecting data, create a dashboard, then create a software program that works with a social media platform. We do this so that we can generate a report for report analysis. The main focal point of this project was creating an app that essentially dumps data which can later be interpreted. The group was able to complete this task by working together and creating objective based goals. These goals are what allowed everyone to stay focused on what was at hand. The tasks included Project Management, Software Development, and Data analysis.

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**Introduction**

|  |  |  |
| --- | --- | --- |
| **Roles and Responsibilities** | | |
| ***Name and Signature*** | ***Role*** | ***Contact Information*** |
| James Dumitru | Project Manager | jdumitru@hawk.iit.edu |
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| Nikhil Mohanty | Data Analyst | nmohanty1@hawk.iit.edu |

## **Project Overview**

## **Scope Statements**

We will create an application that crawls a few different sites for information. We will then take this information and analyze it through a data analysis tool.

Criteria for acceptance is being able to successfully gather data from the specific sites and import the data into a data analysis tool.

Project deliverables are the application itself, the data gathered, and the analysis from the data analysis program.

This project will not be a database or website that allows for storing other information.

Project assumptions include coding primarily in python, gathering data in .csv files and crawling a popular social media site.

## **Goals and Objectives**

* Create Dashboard
* Create a software that works with social media
* Make sure that Web Crawler successfully
* Utilize Python to create a successful GUI
* Data Analysis

# **Project Organization**

* Utilized Trello to understand what needed to get completed and what still needed to be worked on
* Utilized Whats App along with sms to communicate amongst one another
* Divided up the work so that everyone knows expectations
* Create Deadlines that allow team members to have a sense of direction

# **Acquisition Process**

there is no acquisition for the project

# **Monitoring and Control Mechanisms**

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

# **Systems Security Plans and Requirements**

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

# **Work Breakdown Structure (WBS) and Schedule**

Used Microsoft Project

1. Creating a GUI

1.1 Planning Phase

1.1.1 Process Requirements

1.1.2 Data Requirements

1.1.2.1 Indefity Roles

1.1.3 Design Requirements

1.2 Execution Phase

1.2.1 Begin Software Development

1.2.2 Begin Code Development

1.2.3 Test Code

1.2.4 Debug Code

1.3 Monitoring and controlling phase

1.3.1 Review Requirements for UI

1.3.2 Draft Design

1.3.3 Begin UI Development

1.3.4 Test UI

1.4 Project Closeout Phase

1.4.1 Integrate with Code

1.4.2 Data Analysis

1.4.3 Requirements Checklist

1.4.4 Final Deliverables

1.4.5 Finals Review

1.4.6 Complete report/presentation

# **Project Success Criteria**

* Completed Project management plan.
* Have roles established and processes known.
* Having a Web app that can launch successfully.
* Have a User Interface that can be utilized.
* Be able to make a proper Analysis from the data collected.

# **Communication Management Plan**

* Main Communication Via WhatsApp
* Dedicated Google Drive to store files
* Github to allow everyone to work with most updated code
* Slack
* If no response, an email with a 24H notice will be sent.

# **Risk Management Plan**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Current**  **Status** | **Risk**  **Impact** | **Probability of**  **Occurrence** | **Risk**  **Map** | **Risk**  **Description** | **Project**  **Impact** | **Risk Area** | **Symptoms** | **Triggers** | **Risk Response**  **Strategy** | **Response Strategy** | **Contingency Plan** |
| 1 | Open | High | Medium | Red | Current project skill set may not be adequate to complete all project work. | If required skills are not identified or obtained, project schedule may slip and possibly restrict the accomplishment of project goals. | Schedule | Schedule approaches the required start date with no identification of required skill sets. | Four weeks prior to scheduled start date if no resource is identified with required skill set implement contingency plan. | Mitigation | Find internal resource that meets required skill set or train existing resources on LINUX. | Find resource that meets required skill set through external hiring sources. |
| 2 | Open | High | Medium | Red | A world-wide epidemic "Covid-19" virus causing team members to stay at home while campus is shut down. | We are unable to work together face-to-face with the project. | Schedule | We cannot go to the campus because of the "Stay-at-home" order in effect. | If we do not work on collaborating and seting up meetings, we will not be able to finish the project if no plan is set in advanced. | Mitigation | We try to meet every week and plan a video call meeting. | Use an external application like zoom or whatsapp to meet together online through a video call. |
| 3 | Open | High | Medium | Red | Collaboration Problems with team members. Team members not displaying results. | Not providing results confuses our team and pushes back everyones start time on the work. | Schedule | There is no responses from the people from the group and confusion throughout the project. | Incomplete work and therefore the team will be put off schedule. | Mitigation | We send out a 24 hour notice that if nothing is done, they will be taken out and we will be forced to notify the professor. | Send emails out mentioning they have 24 hours to respond and show results. |
| 4 | Open | Low | Medium | Green | Data that we gather is insuficiant. | We do not have clear results. | Schedule | Our report for analysis will not be as accurate as it could have been. | If our data shows inconsistencies when read or corralated. | Mitigation | Low | We gather more data from a better source or wait for the code to run longer as it's crawling. |
| 5 | Open | High | Low | Yellow | Issues with Security, choosing more than one language. | If our code expands upon more than just python, then there will be more vulnerablities we must account for. | Technical Obsolescence | Some bugs or depricated libraries that we should not have been using. | If someone mentions that they want to go above and beyond, they must state how they will do so and if it's feasible possible with the time we have. | Mitigation | Medium | If we can that would be great with the money that we are given, if we do not have the time with the amount of resources then it is not feasible. |
| 6 | Open | High | Medium | Red | Issues with coding with Python. | If the issues with coding occurs, then we will need an increase of time set upon the schedule for the project. | Schedule | Code doesn't work as intended or might not even run at all; worst case scenario. | If there is an issue, we all must come together to fix the code so that we can finish on time. | Mitigation | High | Work together and get on a call. |
| 7 | Open | High | Low | Yellow | Api data integration, Getting the data. | Not getting the api limits our use with twitter allowing us to only crawl urls. | Technical Obsolescence | Without having the api, there is no analysis for the data. | Make sure that getting the integration takes only but a few days to recieve. | Mitigation | Medium | Make fake accounts to access the api keys. |
| 8 | Open | Low | High | Yellow | Insuficiant funding. | Not enough funding will hurt the member's ability to perform at their best work. | Initial Costs | Lowers moral or energy work performance for the group since they mainly work for compensation. | Map the amount given for each person retrospective with what job assignment they are performing. | Mitigation | High | Either ask for a raise or ask for what is really feasible with the amount offered. |
| 9 | Closed | Low | High | Closed | Merge conflicts on GitHub. | Merge conflicts on Github makes everyone's life harder for the software development team, especially when they have to fix broken code that was pushed. | Technical Obsolescence | Takes more time to fix and sometimes have to decide which code is needed. | Make sure that fixing the merge conflicts take only 1 day at most. | Mitigation | High | Come together to fix the code/ merge conflict so everyone can pull/push the right code. |
| 10 | Open | High | High | Red | Not enough time for the project. | Not having enough time means that the overall finished product will not fully run or will not be as good as what could have been if we did have enough time. | Overall Project Failure | People rushing to push whatever they have done to present. | If deadline is closing in and there is little done. | Mitigation | High | Ask for an extension. |
|  | Closed | Medium | Medium | Closed | hardware issues. | Not being able to connect or have enough hardware recources to work on the plan limits the amount of work we can do for coding and analyzing. | Dependencies/Interoperability | Slow internet or slow resources for the project. | If someone's computer cannot handle the stress put upon it with our work. | Mitigation | Medium | Work with another grouyp member to finish on their hardware/computer. |

# **Software Configuration Management (SCM) Plan**

* Github allows for version control, collaborative coding and synchronization
* Everyone using the same IDE will allow for greater compatibility
* Making sure that the same file is not being overwritten by multiple coders

# **Training Plan**

The training plan will be developed during the planning and active stages of the project.

* We intend to train the users for our application. We want to make sure that there is a sense of clarity between the data they receive from using our app
* Training through the GUI so that users can properly navigate application
* Making Sure that Users are able to understand bar charts for data analysis

# **Quality Assurance Plan**

Our Quality Assurance Plan is backed by the testing that has already been done. The previous testing is what has allowed our app to run. That is what we have already done to ensure quality. For the Future we plan to run tests to continue to make sure the app is able to run. During the Project our QA activities consisted of checking on the code periodically to make sure everything was properly organized within Github so that it is easy to access and edit. We utilized Trello to Keep track of tasks which was also part of the QA plan. The Team Understood the goals and objectives for the project. That is an essential component to the QA plan because if the team members are unaware of goals and objectives then how are they going to understand the definition of quality and what standards our team holds to.

# **Project Measurement Plan**

## **Description**

Describe the Project Measurement Plan for the project. This includes:

* Create a GUI that allows users to interact with social media accounts to retrieve data
* Once we have successfully completed this we use the data from the GUI for analyzation
* Put together Final Product for users by testing
* Data will be reported and managed through

## **Performance Measurements**

## **Table 5**: OSINT **Performance Measurements**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Measurement Name** | **Measurement Objective** | **Metric** |
| 1. | GUI | GUI starts and Runs | 100% |
| 2. | Data Analysis | Bar Graphs created from Data | 100% |
| 3. | Web Crawling | Web Crawler that interacts with Various websites such as Twitter and Walmart for example. | 100% |
| n. | Summary | Comprehension of the data and successfully shutting the GUI down | 100% |

# **Reference Materials**

1. Spider - <https://github.com/buckyroberts/Spider>
2. Twitter API
3. <https://www.scrapehero.com/>

Software used:

1. Visual Studio
2. Whatsapp
3. Google Drive
4. Jira
5. Github
6. Pycharm
7. Project Plan 360
8. Adobe XD

**Approval Signatures**

*This section is used to document the approval of the Project Management Plan during the Formal Review. The review should be ideally conducted face to face where signatures can be obtained ‘live’ during the review however the following forms of approval are acceptable:*

* *Physical signatures obtained face to face or via fax*
* *Digital signatures tied cryptographically to the signer*
* */es/ in the signature block provided that a separate digitally signed e-mail indicating the signer’s approval is provided and kept with the document*

*The following members of the governing Integrated Project Team (IPT) are required to sign. Please annotate signature blocks accordingly.*

PAO has additional approver language:

# **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: *<date>*

SCRIBE: *<name>*

Signed:

James Dumitru \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_04/23/2020\_\_\_

Project Manager Date

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Business Sponsor Date