

Malta College of Arts, Science & Technology

# INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY

### **Project Supervision Log Book**

Institute	Institute of Information and Communication Technology			
Programme	BSc. Honours in Business Analytics			
Project Title	·			
	Using Natural Language Processing to assure			
	Data Quality in Web Scraping Operations.			
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Supervisor	Alan Gatt			
Student	Matthew De Giorgio			
Student ID No	0047796(M)			

Meeting Date: 15/03/2019

#### Issues discussed at the meeting

The direction of the project.

Will focus on global suppliers passing through Suez, Gibraltar.

Gather recent news (like RSS and Google News)

#### **Supervisor Recommendations**

Identify the process of gathering and cleaning data. Mainly:

• scraped data > NLP process > cleans data > aggregate data by same news > extract relative keywords

Gain knowledge with NLTK on Python.

The possible direction of using air data instead of shipping.

Date of Next Meeting	20/3/19
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	Data: 20/2/10
Meeting	Date: 20/3/19
Issues discussed at the	emeeting
Database to store scrap	ped data
Air traffic or ship traffic	c direction will affect the overall focus of the project
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A CONTRACTOR	10. 11. 11. 11. 11. 11. 11. 11. 11. 11.
Supervisor Recommer	ndations
Start scraping in Pytho	n.
Set up Git and give me	access.

Date of Next Meeting 29/3/2019

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Meeting	Date: 28/3/2019						
Issues discussed at the meeting							
	•						
Matthew decided on us	Matthew decided on using Air Traffic control data.						
Articles on air traffic wil	ll he scraned related to airling dolay weather delay attended.						
customs issues etc. F	Articles on air traffic will be scraped related to airline delay, weather delay, airport issues, customs issues, etc From these articles Location (Country, City, Airport), type of event, duration						
if applicable.	duration (Country, City, Airport), type of event, duration						
п аррпсавіс.							
	18. 19. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12						
Supervisor Recommend	dations						
Finish SOI.							
Date of Nove St.	10/7/00/0						
Date of Next Meeting	10/5/2019						
Student Signature							

**Supervisor Signature** 

Date: 10/5/2019 Meeting

## Issues discussed at the meeting

Setting up GIT and uploading files.

Initial proposal finishesed off.

Went through existing work and prepared a plan of what needs to be done. Scraping is working and getting results (articles related to air traffic delays)

#### **Supervisor Recommendations**

Use NLP to extract:

- Location
- Time
- Duration
- Affected Airways
- Cause

Date of Next Meeting	30/5/2019
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Date: 04/06/2019 Meeting

### Issues discussed at the meeting

- Ethical Considerations in the SOIs --> Use of Business SOIs.
- Which Research Poster template to use? --> Use New Template
- IEEE --> Research Methodology Section, the research philosophy has to be explained, would it be appropriate to include Artificial Intelligence Philosophies? (can mention)
- IEEE Keywords: NLP, Natural Language Processing, Web Scraping, AI, Artificial Intelligence, Python **Programming**
- IEEE: After the Abstract, you need to make an introduction section or start with the Literature Review Heading and put an intro under it? --> Move Introduction Section from the literature review section
- **IEEE: Evaluation Sub Topics:** 
  - o Small Explainer on Sentiment Analysis
  - For all Tests, comparison of single vs multi-tag runs
  - Data Quality Metric and how the final Data set compares
  - Metric, how many of the designated tags were encountered within each article.
- Current Literature Review Sub Topics Artificial Intelligence, Web Scraping, Natural Langauge Processing, Data Quality
- Research MethodologySection, Is a sampling method required?

Accuracy Chart --> Open the articles, manually count the tags and compare to how many the program caught. (Visualise).

Video ---> Walk Through ( leave a text file link in the git repository)

Share Repo with Ivan.

## **Supervisor Recommendations**

- The Poster Template was finalised
- Discussion on Research Philosophy, mention it but do go into great detail
- Finalised Tags
- Changes to Literature Review intro and IEEE introduction
- Methodology on determining the accuracy of the program.

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	Remarks (if any)											
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Project Supervision Meeting Summary She	Meeting Planned Meeting	Date	15/03/2019	20/03/2019	29/03/2019	30/5/2019	04/06/2019	10/5/2019				
Pr	Meeting	No	1	2	3	4	2	9	7	8	6	

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<b>Total Planned Meetings</b>	<b>Total Actual Meetings</b>

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