

### Criterion B: Record of tasks

Task Number	Planned action	Planned Outcome	Time Estimated	Target Completion Date	Criterion
01	<b>Planning stage:</b> Seeking and emailing a potential client and understanding the basic solution to the problem.	Think of potential solutions, and construct a list of questions to ask the client during the initial interview.	20 min	03/02/2022	A
02	<b>Planning stage:</b> Initial meeting with the client to identify the basic needs of the client.	Have an interview transcript and break down the main problems and outline the possible solutions that best suit the client's additional needs functionality.	1 hour	11/02/2022	A
03	<b>Planning stage:</b> Propose an idea and a summary of the product to the client and seek approval.	Have a concrete plan of the application and start researching and getting approved.	2 hours	13/02/2022	A
04	<b>Planning stage:</b> Researching pre-existing projects, and python libraries.	Divide the main component into data collection, model training, data analysis (sentiment analysis), display of sentiments, and understanding of how I will achieve them using python and libraries.	2 hours	15/02/2022	B
05	<b>Designing stage:</b> Create a test plan and propose an expected outcome.	Evaluate the methods of approaching my success criteria with input and the expected output.	1 hour	28/02/2022	B
06	<b>Designing stage:</b> UI Design for the application.	Create a rough idea of what the user interface would look like.	1 hour	01/03/2022	B

07	<b>Planning stage:</b> Watching tutorials and reading the documentation of the Twitter API.	Have an idea of how to retrieve tweets from Twitter, train an NLP sentiment analysis model, and analyze sentiments of tweets.	2 hours	05/03/2022	B
08	<b>Planning stage:</b> Request official access for Twitter API.	Goal is to have access to the academic research or elevated access to access the Twitter API v2.0. Send emails and requests to the Twitter Developer team.	1 hour	07/03/2022	B
09	<b>Designing stage:</b> Flowchart of the main components of the application.	Create flowcharts to summarize the main component of the program.	3 hours	17/03/2022	B
10	<b>Designing stage:</b> Create UML & ER Diagram based on the functions and classes created.	Have a rough idea of how the code is going to turn out, and how each entity is going to interact with each other.	1 hour	20/03/2022	B
11	<b>Design-prototype:</b> Write a program that can retrieve tweets and analyze sentiment with pre-existing libraries.	Have a working prototype to analyze a small number of tweets without a GUI or personally developed model.	2 hours	20/03/2022	B
12	<b>Design-prototype:</b> Write a prototype to collect tweets & display the overall sentiments that display in some sort of graphic user interface (PySimpleGUI).	Transfer the flowchart for tweet collection to a prototype and follow along with a tutorial, and get familiar with the Twitter API in practical use, use a pre-trained model to analyze sentiment in a rough way. (This prototype did not collect a large number of tweets, and did not have any user interactive functions)	3 hours	21/03/2022	B
13	<b>Designing Stage:</b> Consider Extensibility.	Using the PEP-8 Python Guide, I was able to get to know better about the Python language,	1 hour	25/03/2022	B

		and how I should write my code in the program to ensure future extensibility for other programmers to understand and develop upon.			
14	<b>Designing Stage:</b> Data flow & Structure Diagram.	By designing a data flow and structure diagram, it sets a structure of how the tweet is going to be transferred throughout the program, so it makes the program easier to write and comprehend.	1 hour	26/03/2022	B
15	<b>Designing Stage:</b> Gantt Chart.	A Gantt chart is a concrete plan of what I will do to ensure time management and stay on track to finish the project.	2 hours	31/03/2022	B
16	<b>Development Stage:</b> Use Twitter to retrieve more than 100 tweets.	Since the Twitter API only allows 100 tweets retrieval per request, I need to find a way to collect more tweets that aren't repetitive. And use that to develop a program that retrieves tweets as data.	4 hours	5/04/2022	C
17	<b>Development Stage:</b> Total Tweets posted about certain cryptocurrencies.	Using the Twitter API, search for the number of tweets posted about a specific cryptocurrency in an hour. This will help me get an idea of which cryptocurrency is most discussed.	2 hours	10/04/2022	C

18	<b>Development Stage:</b> Implement Graphic User Interface on top of the code created.	After the data collection and analysis, I will need to develop a graphic user interface for the client to use. This has to be both visually pleasant and easy to navigate.	7 hours	29/04/2022	C, D
19	<b>Test Stage:</b> Test program with all the functionalities.	This will be a constant process for each development stage, and in the end combining all the functionalities in a graphic user interface.	20 min	29/04/2022	C, D
20	<b>Implementation Stage:</b> Implement the program for the client to use and give feedback.	This application will be turned into an executable for the client to use and for feedback.	1 week	8/05/2022	E
21	<b>Evaluation Stage:</b> Meeting for feedback and possible improvement of the project.	Discuss the extensibility of the program, the aspect that should be improved, the functionalities the client liked, and write the transcript of the last meeting.	3 hours	22/05/2022	E