

# Data and Artificial Intelligence

## Cyber Shujaa Program

### Week 1 Assignment

### Web Scraping and Data Handling in Python

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#### Introduction

This week's assignment was to start extracting data using web scraping. I was new to the tools we were introduced to. I used Python's powerful libraries to extract data from the website using Jupyter Notebooks hosted on Google Colab. It was a very effective way of learning by seeing the actual results.

The objectives of the assignment were:

1. Practical Python coding on Jupiter Notebooks hosted on Google Colab
2. Use requests and BeautifulSoup to extract data from a web page.
3. Parse and clean the extracted data.
4. Store structured data into a Pandas DataFrame.
5. Export the final dataset to a .csv file.

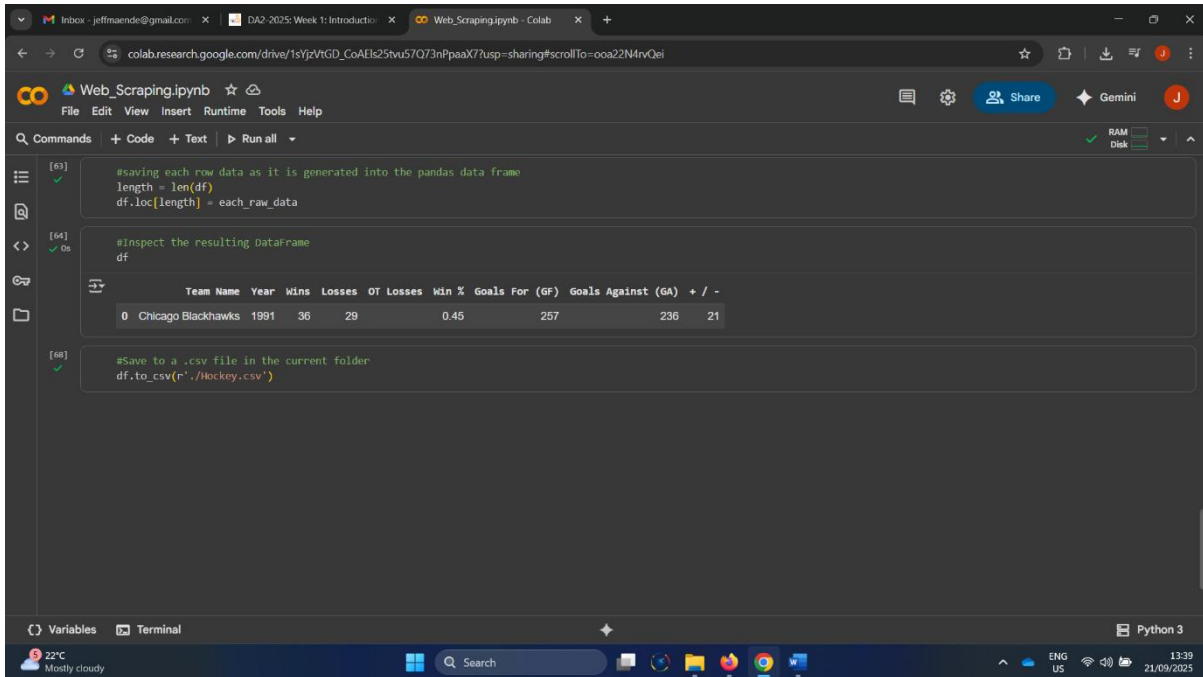
#### Tasks Completed

I have outlined the step-by-step sequence of tasks completed with explanations of code and code snippets backing my steps with screenshots as attached below:









```
[63] #saving each row data as it is generated into the pandas data frame
length = len(df)
df.loc[length] = each_raw_data

[64] #Inspect the resulting DataFrame
df
```

	Team Name	Year	Wins	Losses	OT Losses	Win %	Goals For (GF)	Goals Against (GA)	+ / -
0	Chicago Blackhawks	1991	36	29		0.45	257	236	21

```
[68] #Save to a .csv file in the current folder
df.to_csv(r'./Hockey.csv')
```

I have shared my Notebook and can be accessed using the below link:

**Link to Code:**

[https://colab.research.google.com/drive/1sYjzVtGD\\_CoAEIs25tvu57Q73nPpaaX7?usp=sharing](https://colab.research.google.com/drive/1sYjzVtGD_CoAEIs25tvu57Q73nPpaaX7?usp=sharing)

## Conclusion

This week I gained a solid grounding in the introductory concepts of data science and artificial intelligence, with a focus on their application in data analytics. I am developing a clearer understanding of how these tools can enhance data-driven audit procedures and risk assessment, which I will continue to build on as we explore more advanced concepts in the coming weeks.