



The Room – Data & Research Analyst Role

Welcome to your assignment for the Data & Research Analyst Role

The purpose of this assignment is two-fold:

- To give you a better sense of what the Career Launch team at The Room does, and what this role will entail (so you can decide if it's something you would like to do)
- To give us a sense of whether you would be a good fit for the role

It is designed to be intentionally diverse and fast-paced, much like the actual role.

The questions below purposely omit many details, so feel free to make additional assumptions as necessary.

You have one week (7 days) to return this assignment. In case you need to re-schedule, please let us know.

We look forward to receiving your assignment!

All the best!



Part 1. Researching and consolidating market insights

Our mission at the Career Launch team is to place 2M young Africans in dignified employment by 2030.

The Career Launch Team's role will be to build the data intelligence, selection, assessment, matching technology and processes, brand and networks to enable effectively selecting and connecting top young African talent to relevant work opportunities.

Ask: As a Data Analyst, you are part of the team that is tasked with understanding the current job demand market landscape. This is a critical role for the organisation, as your analysis and data intelligence will help inform crucial decisions like which geographies or industries we source opportunities from, or how we adapt our training programs to be able to successfully meet the employment demand needs.

Deliverable:

- A. How would you approach answering the question: What does the job demand look like in Africa? Describe your methodology or framework including the process and the steps you would take, the quantitative and qualitative data sources you'd use, and data validation. *(limit response to 1 page or slide)*
- B. Assume you have now completed the huge task of figuring out job demand. Based on what you know of The Room and ALX, what other decisions across ALX and The Room could be informed by your data research and analysis? What other questions could you answer? *(limit response to 1 page or slide)*

Ensure that your report is easy to follow and that slides can easily read and understood without needing to explain.



Part 2: Data Analysis

This is the data set to be used to answer the questions below: [link to data set](#). Please note that the data in the linked spreadsheet is not real i.e. the data has been randomly generated but it is a simulation of the types of datasets associated with this role.

Deliverable: *(Limit compiled responses to 2 pages or slides)*

A. Data Review

- a. What would be the first things you would consider when reviewing/ analysing the data set above?
- b. What is your goal when analysing this data and what decision-making will it facilitate? What outcome from the analysis would you deem a success?
- c. If there is any missing data, how would you go about collecting it and ensuring good data quality?

B. Data Analysis:

- a. Clean and analyze the data. Explain your process. *(Be sure to include a link to your dataset with proper viewing access. Spreadsheet does not count towards final page count)*

C. Data visualisation:

- a. Create a data dashboard or any other type of data visualization to visually present the data.

D. Recommendations:

- a. "As an analyst, optimizing your analysis needs you to have a better understanding of your audience" From your research of ALI and The Room membership, who do you think will be using your analysis? In what way? How would you optimize experience for each of the users?
- b. What are the key recommendations you would make based on your analysis? How will you test and validate your recommendations statistically?



Part 3: Technical Skills

- A. In Python what will `[1,2,3] * 2` return?
- B. In Python, how would I concatenate two arrays? *Answer in pseudocode*

	Sport	Age
	Basketball	26
	Football	26
	Cricket	27

- A. Above is the *'athletes'* dataframe. Answer in Python, select the Sport and Age columns from the athletes dataframe
- B. In Python, add a new column named Olympics to the athletes DataFrame with all 1s to indicate each sport's active Olympics status.
- C. Write a Python solution to find the top 3 countries with the highest administered COVID vaccines (by share of population) and showing the % population vaccinated for those countries.
- D. Write a Python solution to determine the number of jobs in Kenya currently posted on www.brightermonday.com

"Bonus" / Optional: Personal Projects

Please provide a personal data analysis project that you think showcases your skills. Be sure to describe the business problem you were solving, how you solved it, what tools/technologies you used, and any output.

BEST OF LUCK!