

1. Scenario

Rwanda Revenue Authority (RRA) is a financial services institution located at Kimihurura, Kigali Rwanda which focuses on tax revenue collection for the Republic of Rwanda. As a result of the prevailing COVID-19 pandemic, its tax collection for 2020-2021 fiscal year deteriorated by 10% to a value of US1,3 Billion Dollars. They are now planning in advance to improve their fiscal tax revenue for the year 2021-2022. One of their focus as a key enabler towards that mission is to invest in digital transformation. In line with their digital agenda, the institution is planning to establish an effective revenue collection platform to influence their decision making processes by gaining necessary insights from the vast amount of data which they collect on daily basis as well as sentiments from the media and other platforms. On Tuesday the 9th February 2021, RRA published a Request for Proposal (RFP) which was submitted to specific Tech Companies that specializes in data analytics. These tech companies were asked to submit their bids proposals before 23hr59 of Friday 19th of February 2021. Below are the terms of references for the bids before submission:

1. Bids to be accompanied by a proof of concept (POC) in form of a prototype as summarized in Figure 1, which shows how data is ingested from different sources, integrated in the system up to presentation of data to the audience through the system in form of visualizations. As a result of prevailing Covid-19 environment, the POC is expected to be a presented in a short video recording of not more than 8 Minutes (sound and video quality must be clear). You are free to use any dataset that will help us as RRA to measure your technical capabilities before any formal engagement.

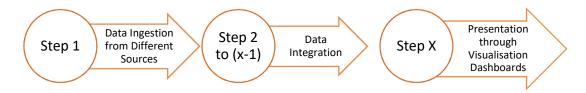


Figure 1: Requirements flow diagram

2. Bids submissions to include proposal documentation that explains implementation of the above mentioned prototype, specific environment needed to scale-up the project

into production, team details, budget, implementation timelines, risk and any other recommendation and requirements for the successful implementation of the project.

2. Assignment

Your Group is expected to showcase data analytics techniques using any financial data set of choice that relates to the above mentioned revenue collection scenario by combining it with any sentimental dataset. Your group should demonstrate all skills acquired during the previous session in and outside class. The objective of this exercise is to measure how you understand data analytics techniques by showcasing your creativity and innovation within the context of data analytics of Al. This project assignment has to be a master piece of data analytics in submitting your bid. Furthermore, the essence of this assignment is to demonstrate what you can do with Al in solving a financial data analytics problems.

3. Assignment Instructions

Again, this is a Group assignment and you're expected to:

- 1. Make your assignment submission in line with bid submission requirements.
- 2. Demonstrate practical application in a logical, clear and systematic manner.
- 3. Conduct a presentation in line with bid specifications.
- 4. Bid Proposal documentation to be in sync with academic requirements discussed in class (i.e. IEEE referencing formart, Latex format, proper page numbering, designs and captioning) Please note that your assignment is subject to the ALU Academic Integrity Code of Conduct.

4. Assessment Criteria

This project should make use of the implementation platform you created in our previous assignment. Assessment will be based on:

Project Rubric	Marks Allocation
Creativity- innovativeness in solving the assignment in a logical	20%
manner.	
Presentation – professionalism in terms of quality, peer contribution	25%
and participation	
Application and Compliance with Bid requirements-Ability to follow	35%
required processes, procedures, techniques which are relevant to	
the solution required.	
Documentation-packaging your work in line with academic	20%
requirements	
Total Percentage Score	100%