

## **INTRODUCTION:**

The National Institute of Statistics of Rwanda (NISR) is thrilled to announce an upcoming Data Science Hackathon, designed to engage university students in developing innovative data-driven solutions. This hackathon brings together innovators and data enthusiastic students to tackle major challenges facing young people in Rwanda today. Participants will be encouraged to find data which can help them tackle their chosen challenge and provide a data science solution.

## **HACKATHON THEME:**

Develop a data science solution to a problem facing young people today Challenges:

### **Participants may choose one of the following two challenge options:**

1. Select a well-known problem facing young people (aged 0 -25) in Rwanda and provide a data science solution to this problem. Examples include unemployment, poverty, or teenage pregnancy.
2. Identify and demonstrate the validity of a less-recognized or emerging problem facing young people in Rwanda that deserves more attention. Provide a data science solution to this problem.

For either option students must use at least one dataset provided by NISR and one dataset produced by another organization. In this context a data science solution means using data analysis, visualization, or modelling to:

- Gain new insights about the problem
- Make predictions related to the problem
- Propose data-supported interventions to address the problem

### **Objective:**

- To promote innovative solutions to challenges facing young people today.
- Students should use R or Python to produce a dashboard which demonstrates a solution for the challenge they have chosen.
- This app should be uploaded online for public use. Students will be trained how to upload their projects and given resources to learn programming to help them in their task.

## **REQUIREMENT FOR PARTICIPATION:**

- Teams must consist of exactly 3 students. At least one team member must be a final year Rwandan student. Team members can be from the same or different universities or colleges.
- Proof of current student status is required.
- Students in their final year are encouraged.
- Submissions for the hackathon will be expected as a GitHub repository link containing a script in the language of your choice and a link to the online dashboard.
- By entering the competition, the entrants agree to grant permission to NISR to use and reproduce their work, with appropriate acknowledgment.
- Plagiarism is prohibited. You must declare that the submission is your own work and that all sources of reference are acknowledged in full. Failure to do so will result in disqualification.

## **TIMELINE**

- 7th October 2024: Notify universities and open registration page on NISR website.

- 14th October 2024: Webinar to give more information about competition including how to submit entries and where to find datasets.
- 10th November (Midnight): First stage submission deadline.
- 20th November: Announcement of boot camp finalists.
- 1st – 10th December: Bootcamp sessions, including advanced data science topics, hands-on workshops, and final presentations. (Weekends included) + Evaluation of submitted Projects.
- December (To be Determined): Awarding ceremony.

## **EVALUATION CRITERIA**

- Relevance to the Theme **(20%)**
- Data Utilization and Accuracy **(25%)**
- User Interface (UI) and User Experience (UX) **(15%)**
- Creativity and Innovation **(15%)**
- Impact and Scalability **(25%)**

## **PRIZES**

The best quality laptops and other communication devices will be awarded to the first three winning teams. Final-year Rwandan students from the winning teams will be eligible for professional internships at NISR upon completion of their education among other potential opportunities.

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