**Research topics**: **"Using Big Data for Predictive Policing in Rwanda**

**Phase 1 – Focused Research Breakdown for Group of 20**

| **Topic** | **Description** | **Assigned Students** |
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| **1. Predictive Policing Concepts & Global Practices** | Deep dive into what predictive policing is, its use globally, models applied, and success stories. | Afruika Onesme, Cinegana Matabaro Jean Luc, ASIFIWE Emmanuel |
| **2. Big Data Applications in Law Enforcement (Rwanda Context)** | How Big Data can be or is being used by law enforcement in Rwanda. Focus on local relevance. | Abdoulaye Zakaria Djerou, Abourahamane Adoum Gadam, Allaiangye Lucien |
| **3. Data Sources & Collection for Crime Analysis** | Explore available data sources (e.g., police records, public reports, CCTV, social media) and data collection techniques in Rwanda. | Agasaro Amanda Shevan, BYIRINGIRO Bailly, Gango Petroni Endam |
| **4. Tools, Technologies & Analytics in Predictive Policing** | Study the tools (Hadoop, Spark, Python, etc.), techniques (machine learning, clustering), and how they can be applied. | Fanta Mushi-Muntu-Nkana Don Béni, Hirwa Clement, Hirwa Gemelin |
| **5. Challenges in Predictive Policing with Big Data** | Investigate technical, infrastructural, and societal challenges in implementing predictive policing systems. | BYISHIMO Olivier, Arnaud Nshuti, Imano Nelly |
| **6. Legal, Ethical & Privacy Concerns** | Focus on the risks of data misuse, privacy infringement, racial profiling, and how Rwanda’s law addresses these. | ASIFIWE Uwiriginyimana Aline, Iradukunda Delphine, Ingabire Bienvenu |
| **7. Data Preprocessing & Model Evaluation** | Discuss data cleaning, transformation, feature engineering, and how to evaluate model accuracy and fairness. | Iradukunda Divine, Ibangabis Ganza Pierre Davy |
| **8. Public Perception & Community Impact** | Analyze how Rwandans may perceive predictive policing, and its social impact (positive or negative). | Impano Nelly, Arnaud Nshuti |

**Next Steps:**

* Each group of 2–3 students prepares a **1–2 page summary** of findings.
* Include **real-world examples**, **challenges**, and **potential applications** in Rwanda.
* Deliverables can be compiled later into a collective report.
* **Deadline is on Sunday midnight** (Please make sure to do your assign tasks )