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

Phase 1 – Focused Research Breakdown for Group of 20

Topic	Description	Assigned Students
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)