

HDPSA Project – Model Monitoring Schedule

Project: Health and Demographic Patterns in South Africa (HDPSA)

Module: BIN381 – Business Intelligence

Team: Group M

Responsible Role: Monitoring & Maintenance Lead

Purpose

This schedule defines how and when model monitoring, validation and maintenance activities occur to ensure that the deployed health-risk prediction models remain accurate, reliable, and ethically compliant.

Monitoring Frequency

Period	Activity	Responsible Person	Tool / File
Weekly	Run model_monitoring_log.R to append latest AUC/Accuracy scores.	Data Engineer	R Studio / CSV Log
Monthly	Review model_monitoring_log.csv for anomalies or threshold breaches.	Project Lead	CSV Log & Power BI KPI Card
Quarterly	Validate models against hold-out dataset.	Data Scientist	R / Validation Report
Bi-Annually	Retrain model if performance < thresholds (AUC < 0.50 or Accuracy < 45 %).	Data Scientist	R Project Scripts
Annually	Review governance records and ethics compliance.	Project Lead	model_governance_log.xlsx

Execution Method

- Script automation via **Windows Task Scheduler** every Monday at 08:00 SAST.
- Log files stored at Milestone5/Monitoring/.
- Backup logs automatically committed to GitHub repository (/monitoring branch).

Deliverables

1. model_monitoring_log.csv (automated output)
2. model_governance_log.xlsx (manual oversight)
3. Monitoring_Schedule.pdf (this document)