GitHub Repository Structure for Healthcare Predictive Analytics (Rwanda)

This GitHub repository structure is designed for the Healthcare Predictive Analytics project focused on predicting patient readmission risks within the Rwandan healthcare context.

Project Title:

Predictive Healthcare Analytics: Reducing Patient Readmission Risks in Rwanda

Repository Structure:

```
healthcare-predictive-analytics-rwanda/
|
+-- data/
|   \-- (Sample datasets or simulated Rwandan hospital data)
|
+-- notebooks/
|   \-- (Exploratory Data Analysis (EDA) notebooks)
|
+-- src/
|   +-- preprocessing.py  (Data cleaning and feature engineering)
|   +-- train_model.py    (Training ML models: Logistic Regression, XGBoost)
|   \-- evaluate_model.py (Model evaluation metrics: ROC-AUC, F1-score)
|
+-- app/
|   +-- api.py          (Flask or FastAPI service for model predictions)
|   \-- dashboard.py     (Optional Streamlit dashboard for visual analytics)
|
```

```
+-- tests/

|   \-- test_pipeline.py  (Unit tests for data and models)

|

+-- Dockerfile          (Containerization for deployment)

+-- requirements.txt     (Python dependencies)

+-- README.md            (Project overview and setup guide)

\-- ci-cd.yaml          (CI/CD pipeline configuration using GitHub Actions)
```

Impact:

The repository structure is optimized for modularity, enabling Rwanda's healthcare facilities or researchers to reuse and improve predictive healthcare models.