**Title**: **Health Data Analytics Challenge Using Power BI**

**Objective**:  
The goal of this hackathon is to dive into real-world health data, uncover key insights about healthcare performance, and visualize these insights using **Power BI**. Participants will use the provided dataset to analyze various health indicators, with a particular focus on mortality rates, disease prevalence, and healthcare access quality. The objective is to create compelling, data-driven stories and interactive dashboards that offer solutions and recommendations for improving healthcare outcomes.

### **Dataset Description:**

The dataset covers **health-related indicators** for **China in the year 1990**, providing a detailed look into health access, mortality, and disease-specific statistics. Key fields in the dataset include:

* **Location ID/Name**: Identifies the geographical region (China in this case).
* **Year**: Year of data collection (1990).
* **Age Group**: "Age-standardized" grouping of health indicators.
* **Indicator Name**: Diseases or health indicators (e.g., Tuberculosis, Respiratory infections).
* **HAQ Index**: Health Access and Quality Index.
* **Mortality-to-Incidence Ratio (MIR)**: The ratio of deaths to new cases of a disease.
* **Risk-Standardized Death Rate (RSD)**: Adjusted mortality rate for different diseases.
* **Confidence Intervals**: Upper and lower bounds for reported values.

### **Challenge Requirements:**

1. **Data Understanding**:  
   Participants must explore the dataset to understand the relationship between healthcare quality, mortality, and disease prevalence. Use Power BI to conduct the analysis, and focus on trends and insights that can improve healthcare outcomes.
2. **Data Visualization**:  
   Participants must create **Power BI dashboards** that tell a story using the data. Each dashboard should:
   * Be interactive, allowing users to filter and explore data by disease, health indicator, and mortality rate.
   * Provide at least **different types of visualizations** (e.g., bar charts, pie charts, heatmaps).
   * Highlight key insights, such as which diseases have the highest mortality-to-incidence ratios, or how healthcare access impacts mortality rates.
3. **Analysis Focus Areas**:  
   The following analysis areas and other ones:
   * **Health Performance by HAQ Index**: Which health sectors are performing well, and where can improvements be made?
   * **Mortality-to-Incidence Ratios (MIR)**: Which diseases are deadliest in terms of mortality relative to incidence?
   * **Risk-Standardized Death Rates (RSD)**: What are the most dangerous conditions based on standardized death rates?
   * **Top 5 Diseases**: What are the top 5 diseases contributing to the highest mortality?
   * **Uncertainty Analysis**: How reliable is the data, and where are the biggest uncertainties?
4. **Submission Requirements**:
   * An **interactive Power BI dashboard** with clear visualizations of key insights.
   * A short **presentation** (up to 5 minutes) explaining the findings and the story behind the dashboard.
   * Optionally, a **summary report** of the analysis and key takeaways (one page max).

This is the link to the dataset: [Link](https://drive.google.com/file/d/12sQ6B656Lqoi3pCxFDt6cVmqn3DGAewv/view?usp=sharing)

The data is in a zipped folder. It was gotten from http://ghdx.healthdata.org