**Project Initialization and Planning Phase**

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| Date | 01 October 2025 |
| Team ID | SWUID20250181698 |
| Project Title | Global Inflation Dynamics (1980-2024): A Comparative Time-Series Analysis |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, Includes data cleaning and transformation, Exploratory Data Analysis (EDA), visualization of global, regional, and country-level inflation trends, and development of an interactive dashboard.

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| **Project Overview** | |
| Objective | To analyze historical global inflation trends and provide data-driven comparative insights between developed and emerging economies. |
| Scope | Includes data cleaning and transformation, Exploratory Data Analysis (EDA), visualization of global, regional, and country-level inflation trends, and development of an interactive dashboard. |
| **Problem Statement** | |
| Description | The global inflation dataset is in a raw, **wide format** that is unsuitable for direct time-series analysis and contains noise (missing data, hyperinflation outliers), making macroeconomic comparisons difficult for decision-makers. |
| Impact | Solving this provides a **cleaned, reliable, and visualized data asset** that enables quick, evidence-based policy and investment decisions regarding global economic stability and risk. |
| **Proposed Solution** | |
| Approach | 1. **Data Engineering:** Use Power Query to Unpivot the data and filter for quality. 2. **2. Analysis:** Define robust DAX Measures (Median Inflation) for accurate trend analysis. 3. **3. Dashboarding**: Deliver a professional, interactive dashboard (Power BI). |
| Key Features | 1. **Data Transformation Pipeline** (M Language in Power Query).  2. **Comparative Time-Series Visualizations** (G7 vs. BRICS).  3. **Hyperinflation Mitigation** using the Median DAX Measure.  4. **Interactive Power BI Dashboard**. |

**Resource Requirements**

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| **Resource Type** | **Description** | **Specification/Allocation** |
| **Hardware** | | |
| Computing Resources | Standard Laptop/Desktop CPU (no GPU required) | Intel Core I5 |
| Memory | RAM specifications | 8 GB |
| Storage | Disk space for data, models, and logs | 1 TB SSD |
| **Software** | | |
| **Software** | Core Tool | **Power BI Desktop** (Essential for transformation and visualization) |
| **Software** | Data Transformation Language | **Power Query (M Language)** for Unpivoting and Cleaning |
| **Software** | Data Analysis Language | **DAX** (Data Analysis Expressions) for creating measures/KPIs |
| **Data** | | |
| Data | Data | global\_inflation\_data.csv (Annual CPI Inflation, 1980-2024) |