

## Project Initialization and Planning Phase

Date	28 September 2025
Skillwallet ID	SWUID20250200484
Project Title	Power BI Inflation Analysis: Journeying Through Global Economic Terrain
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, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	To develop a dynamic, multi-dashboard Power BI solution for <b>quantifying global inflation risk</b> and <b>evaluating the effectiveness of financial adjustment mechanisms</b> across time and geography.
Scope	Analysis of <b>historical global inflation data (1980 - 2024)</b> , focusing on <b>raw vs. adjusted rates</b> , <b>regional volatility</b> , and <b>time-series trends</b> . The solution includes <b>4 interlinked interactive dashboards</b> .
Problem Statement	
Description	Financial institutions lack a unified, dynamic tool to analyze <b>extreme inflation volatility</b> (e.g., hyperinflation peaks exceeding 65,000%) and the performance of policy adjustments. The <b>raw data is messy</b> —it's in a wide format and <b>lacks a clean date dimension</b> , making standard Time Intelligence functions challenging. ( <i>Honestly, cleaning that hyperinflation data felt like a battle!</i> )
Impact	The current lack of clarity leads to sub-optimal dynamic pricing strategies and misallocation of investment capital due to the inability to quickly identify and filter <b>risk hotspots</b> and <b>policy successes</b> .
Proposed Solution	
Approach	<b>1. Data Curation &amp; Modeling:</b> Manual extraction and cleaning of historical data followed by <b>Power Query Unpivot</b> for a normalized

	(tall) structure. <b>2. Advanced DAX:</b> Implementation of custom, <b>non-Time Intelligence DAX</b> for accurate metrics. <b>3. Multi-Layer Visualization:</b> Creation of <b>4 specialized dashboards</b> (Global Summary, Operational Deep Dive, etc.) for layered analysis.
Key Features	1. <b>Adjustment Effectiveness (%)</b> : A custom KPI to instantly show the percentage reduction in Max Inflation Rate after policy adjustment. 2. <b>DAX Resilience: YoY Logic</b> implemented via <b>CALCULATE(..., MAX([Year])-1)</b> to calculate annual growth without a dedicated date table. 3. <b>Volatility Hotspots: Max/Min Range Chart (V11)</b> using <b>Volatility_Range</b> measure and advanced transparent bar formatting.

## Resource Requirements

Resource Type	Description	Specification/Allocation
<b>Hardware</b>		
Computing Resources	Standard PC for data processing and Power BI Desktop rendering.	Quad-core CPU (i5/Ryzen 5 equivalent or better)
Memory	RAM specifications	8 GB RAM (16 GB Recommended for smoother development)
Storage	Disk space for data, models, and logs	500 GB SSD (for fast application load)
<b>Software</b>		
Frameworks	Data processing, analysis, and visualization	Microsoft Power BI Desktop
Libraries	Additional libraries	Microsoft Power BI Desktop
Development Environment	IDE, version control	Power BI Service (for publishing), DAX Studio (optional for debugging)
<b>Data</b>		
Data	Source, size, format	Historical Global Inflation Data (1980–2024). <b>Source:</b> Manually Curated

		(IMF/World Bank data). <b>Size:</b> Approx. 1 MB (small but complex). <b>Format:</b> CSV (Unpivoted for model integrity).
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