➢ Guide : -

Step	Task Description	File / Notebook
1	Scraped real macroeconomic data from APIs (FRED, OECD).	**Scrapping data.ipynb**
2	Performed data pre-processing: merged datasets and created new variables using SQL (SSMS).	**Data Pre-processing.sql**
3	Analysed the Phillips Curve using supervised learning regression and visualizations.	**Philips Curve.ipynb**
4	Estimated the Consumption Function using Simple Linear Regression (SLR), plotted results, and explained the IS–LM framework.	**Consumption Function.ipynb**
5	Forecasted Japan’s quarterly GDP for the next 2 years using ARIMA time-series modelling.	**Japan’s GDP Forecasting.ipynb**
6	Compiled a detailed final report, including interpretations and policy recommendations.	**Report on Project Japan**

➢ Executive Summary : -

The **Phillips Curve** describes the inverse relationship between inflation and unemployment. However, in Japan this relationship **appears weak** or almost non-existent. This is because Japan is in a **liquidity trap**, where interest rates are near zero and households prefer to hold cash rather than spend. When people hold liquidity instead of consuming, firms face weak demand, leading to low investment and stagnant prices. As a result, **aggregate demand** remains subdued and **inflation stays low**, regardless of changes in unemployment. This explains why inflation in Japan does not respond to unemployment and why the estimated Phillips Curve in my model is statistically insignificant.

Therefore, this reflects **Japan's liquidity trap**, where monetary policy does not increase output, so **fiscal policy affect most** in output or increase in GDP. In contrast, fiscal policy directly shifts the IS curve and therefore plays a much stronger role in influencing GDP and employment. So **Japan should focus more on the IS side** i.e., fiscal policy, because monetary policy (LM) is nearly powerless in a liquidity trap.

➢ Recommendations : -

- **As Fiscal policy is affecting more –**

1. Increase Govt. Spending, 2. Lower consumption tax, 3. Direct cash transfer or vouchers, basically, encouraging spending, 4. Force companies to pay higher wages.

- **Some structural Reforms –**

1. Increase immigration, 2. Increase female labor participation, 3. Improve productivity through technology or digital Transformation.

- **Decrease investments in Abroad –** Only households holding excess money do not cause Japan’s liquidity trap. A major factor is that Japanese corporations invest heavily overseas rather than domestically. This reduces domestic investment and weakens aggregate demand. As a result, domestic output and wages grow very slowly, preventing inflation from rising.