Housing Cost Prediction Application

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Business Need

With rising housing costs in Australia, embarking on new construction projects is risky.

Solution

- Utilize mathematical equation developed by Western Sydney University to predict Housing Construction Producer Price Index (PPI)
- Pull data from trusted organization and government resources
- Develop 2 applications that can predict the PPI using the data gathered and equation given

Australian Bureau of Statistics

FRED. ECONOMIC DATA | ST. LOUIS FED

RESERVE BANK OF AUSTRALIA

Application Workflow

User Prompt
↓
Gather Data
↓
Run Equation
↓
Display Results

Gathering Data

- Excel
  - Excel Web Queries
- Python
  - Selenium and BeautifulSoup used to web scrape

Excel UI

Housing Cost Predictor		
Factors		**% Changes**
Base Medal Price % Change	:	0.232945456
Houseing Credit % Change	:	0.84
Unemployment % Change	:	0.621
Wage Growth % Change	:	0.368
Balance of Trade % Change	:	-2.92735449
Residential Perment % Change	:	2.4415
Construction Rate % Change	:	0.153
Ceramic Tile Price % Change	:	-0.184481724
Residential Construction Cost	=	1.544609243

Python UI

Housing Cost Predictor

Factors	% change
Base Metal	-1.13805
Housing Credit	0.84
Average Unemployment	0.729
Wage Growth	0.368
Balance of Trade	-3.83006
Residential Permit	2.4415
Construction Rate	0.153
Ceramic Tile	-0.12564
Residential Construction Cost	-0.56225

Calculate | Export to CSV