Instruction: Determine the most cost-effective country to purchase the smartphone model "CodeAct 1". The countries to consider are the USA, Japan, Germany, and India.

Available APIs

- [1] lookup rates(country: str) -> (float, float)
- [2] convert_and_tax(price: float, exchange_rate: float, tax_rate: float) -> float

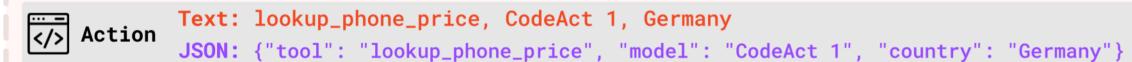
```
[3] estimate final price(converted price: float, shipping cost: float) -> float
[4] lookup_phone_price(model: str, country: str) -> float
[5] estimate_shipping_cost(destination_country: str) -> float
```

LLM Agent using [**Text/JSON**] as Action

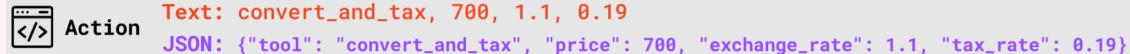














[... interactions omitted (look up shipping cost and calculate final price) ...]

```
Text: lookup_rates, Japan
JSON: {"tool": "lookup_rates", "country": "Japan"}
[... interactions omitted (calculate final price for all other countries)...]
```

The most cost-effective country to purchase the smartphone model is Japan with price 904.00 in USD.

CodeAct: LLM Agent using [**Code**] as Action



I should calculate the phone price in USD for each country, then find the most cost-effective country.



Fewer Actions Required!

final prices = {} for country in countries:

```
exchange rate, tax rate = lookup rates(country)
local_price = lookup_phone_price("xAct 1", country)
```

```
converted_price = convert_and_tax(
 local_price, exchange_rate, tax_rate
```

countries = ['USA', 'Japan', 'Germany', 'India']

shipping_cost = estimate_shipping_cost(country) final_price = estimate_final_price(converted_price, shipping_cost) final_prices[country] = final_price

```
most_cost_effective_country = min(final_prices, key=final_prices.get)
most_cost_effective_price = final_prices[most_cost_effective_country]
print(most_cost_effective_country, most_cost_effective_price)
```



Environment 1.1, 0.19

Re-use min Function from Existing **Software Infrastructures (Python library)**

Control & Data Flow of Code

Simplifies Complex Operations



The most cost-effective country to purchase the smartphone model is Japan with price 904.00 in USD.