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**PROGRAM:**

class StockExpertSystem:

    def \_\_init\_\_(self):

        self.stock\_data = {

            "AAPL": {"price": 150.50, "volume": 1000000, "trend": "up"},

            "GOOGL": {"price": 2800.75, "volume": 500000, "trend": "down"},

            "MSFT": {"price": 300.20, "volume": 800000, "trend": "up"}

            # Add more stocks with their data

        }

    def get\_recommendation(self, symbol):

        stock = self.stock\_data.get(symbol)

        if not stock:

            return "Stock not found"

        price = stock["price"]

        volume = stock["volume"]

        trend = stock["trend"]

        if price < 100:

            if volume > 500000:

                return "Buy"

            else:

                return "Hold"

        elif price > 200:

            if trend == "up":

                return "Sell"

            else:

                return "Hold"

        else:

            return "Hold"

# Example usage:

expert\_system = StockExpertSystem()

symbol = input("Enter stock symbol (e.g., AAPL, GOOGL, MSFT): ").upper()

recommendation = expert\_system.get\_recommendation(symbol)

print("Recommendation for", symbol, ":", recommendation)

**OUTPUT:**

Enter stock symbol (e.g., AAPL, GOOGL, MSFT): GOOGL

Recommendation for GOOGL : Hold