**IPO chart:**

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| --- | --- | --- |
| Input: | Processing: | Output: |
| User input for whether they want to calculate the next month's forecast (Yes or No).  If the response is "Yes," the program prompts for:  User input for the last name.  User input for the month (e.g., Jan, Feb, Mar).  User input for the current month's sales. | The program defines a function calculateNextMonthForecast to calculate the next month's forecasted sales based on the month and current sales. It determines the forecast percentage based on the provided month.  The program uses a while loop to repeatedly prompt the user for input:  If the user's response is "No," the loop ends.  If the user's response is "Yes," the program proceeds to collect information.  For each "Yes" response, the program calculates the next month's forecasted sales using the calculateNextMonthForecast function and displays the result.  If the user provides an invalid response, the program informs the user.  The program repeats this process until the user responds with "No." | For each "Yes" response, the program displays the last name and the forecasted sales for the next month.  If the user provides an invalid response, the program informs the user.  The program ends with a message when the user responds with "No." |

**Code:**

def calculateNextMonthForecast(month, sales):

forecastPercent = 0.0

if month in ["Jan", "Feb", "Mar"]:

forecastPercent = 0.10

elif month in ["Apr", "May", "Jun"]:

forecastPercent = 0.15

elif month in ["Jul", "Aug", "Sep"]:

forecastPercent = 0.20

elif month in ["Oct", "Nov", "Dec"]:

forecastPercent = 0.25

nextMonthSales = sales \* (1 + forecastPercent)

return nextMonthSales

while True:

response = input("Do you want to calculate the next month's forecast? (Yes/No): ").strip().lower()

if response == "no":

break

elif response == "yes":

lastName = input("Enter your last name: ")

month = input("Enter the month (e.g., Jan, Feb, Mar): ").strip().capitalize()

sales = float(input("Enter the current month's sales: "))

nextMonthSales = calculateNextMonthForecast(month, sales)

print(f"Last Name: {lastName}")

print(f"Next Month's Forecasted Sales: ${nextMonthSales:.2f}\n")

else:

print("Invalid response. Please enter 'Yes' or 'No'.")

print("Program ended."):.2f}")