Plotting Multi-Period Returns - Question & Answer

# Question:

Compute and plot daily, monthly, and annual returns for Google stock using pct\_change over 1, 30, and 360 days.

# Answer (Code):

# Create daily\_return  
google['daily\_return'] = google['Close'].pct\_change(1) \* 100  
  
# Create monthly\_return  
google['monthly\_return'] = google['Close'].pct\_change(30) \* 100  
  
# Create annual\_return  
google['annual\_return'] = google['Close'].pct\_change(360) \* 100  
  
# Plot the result  
google[['daily\_return', 'monthly\_return', 'annual\_return']].plot(subplots=True)  
plt.show()

## Question Explanation (20 words):

The question involves calculating returns for multiple time horizons using pct\_change and visualizing daily, monthly, and annual return patterns.

## Answer Explanation (20 words):

We compute returns using pct\_change(periods), multiply by 100 for percentage, and plot all three series with subplots.

## Reference Image:

