Future Value - Python Exercise

# Question:

Using NumPy's fv() function, calculate the future value of a $10,000 investment returning 5% per year for 15 years (investment\_1) and 8% per year for 15 years (investment\_2).

# Question Explanation (20 words):

We need to calculate the future value of $10,000 using NumPy’s fv() with specified rates and periods.

# Answer (Code):

# Import numpy as np  
import numpy as np  
  
# Calculate investment\_1  
investment\_1 = np.fv(rate=0.05, nper=15, pmt=0, pv=-10000)  
  
# Calculate investment\_2  
investment\_2 = np.fv(rate=0.08, nper=15, pmt=0, pv=-10000)  
  
# Print results  
print("Investment 1 will yield a total of $" + str(round(investment\_1, 2)) + " in 15 years")  
print("Investment 2 will yield a total of $" + str(round(investment\_2, 2)) + " in 15 years")

# Answer Explanation (20 words):

The np.fv() function computes future value. We pass rate, periods, payment (0), and negative present value to calculate returns.

