Calculating IRR and NPV with Different Project Lifespans - Python Exercise

# Question:

Compute and print the IRR and NPV of Project 1 and Project 2 using the given cash flows and a WACC of 12.9%.

# Question Explanation (20 words):

We compute both IRR and NPV for each project using numpy's irr and npv functions, applying the given WACC of 12.9%.

# Answer (Code):

# Import numpy as np  
import numpy as np  
  
# Calculate the IRR for Project 1  
irr\_project1 = np.irr(cf\_project1)  
print("Project 1 IRR: " + str(round(100 \* irr\_project1, 2)) + "%")  
  
# Calculate the IRR for Project 2  
irr\_project2 = np.irr(cf\_project2)  
print("Project 2 IRR: " + str(round(100 \* irr\_project2, 2)) + "%")  
  
# Set the WACC equal to 12.9%  
wacc = 0.129  
  
# Calculate the NPV for Project 1  
npv\_project1 = np.npv(wacc, cf\_project1)  
print("Project 1 NPV: " + str(round(npv\_project1, 2)))  
  
# Calculate the NPV for Project 2  
npv\_project2 = np.npv(wacc, cf\_project2)  
print("Project 2 NPV: " + str(round(npv\_project2, 2)))

# Answer Explanation (20 words):

IRR is found using np.irr(), while NPV is calculated using np.npv() with wacc=0.129 for both project cash flows.

