

ASSIGNMENT-1

Q\n: Temperature Converter Write a Python function named `convert_temperature` that converts temperatures between Fahrenheit and Celsius. The function should take two arguments: the temperature to convert and the unit of the input temperature ('F' for Fahrenheit, 'C' for Celsius). The function should return the converted temperature.

Requirements: If the input unit is 'F', convert the temperature to Celsius. If the input unit is 'C', convert the temperature to Fahrenheit. Round the result to 2 decimal places.

Formulae: -Celsius to Fahrenheit: $(C * 9/5) + 32$

-Fahrenheit to Celsius: $(F - 32) * 5/9$

Hints: -Use conditional statements to handle the conversion based on the unit.

-Use the `round()` function to round off the result

Sol : def `convert_temperature`(temp, unit):

 """

 Converts temperature between Fahrenheit and Celsius.

 Parameters:

 temp (float): The temperature value to convert.

 unit (str): The unit of the input temperature ('F' or 'C').

 Returns:

 float: The converted temperature, rounded to 2 decimal places.

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 if unit == 'F':

 # Convert Fahrenheit to Celsius

 converted = (temp - 32) * 5 / 9

 elif unit == 'C':

 # Convert Celsius to Fahrenheit

 converted = (temp * 9 / 5) + 32

 else:

 raise ValueError("Unit must be 'F' or 'C'")

 return round(converted, 2)

print(`convert_temperature`(100, 'F')) # Output: 37.78

print(`convert_temperature`(0, 'C')) # Output: 32.0