1. Given the total seconds, compute and print equivalent hours, minutes, and seconds using arithmetic operations.

totalseconds = 2600

hours=totalseconds//3600

remaning = totalseconds%3600

mintues= remaning//60

seconds=remaning%60

print('hours',hours)

print('mintues',mintues)

print('seconds',seconds)

Output

hours 0

mintues 43

seconds 20

1. Assign the price and quantity of two products. Calculate the total cost including 18% tax. Print a detailed bill.

# Step 1: Define product prices and quantities

product1\_price = 50

product1\_quantity = 2

product2\_price = 100

product2\_quantity = 1

# Step 2: Calculate subtotals

subtotal1 = product1\_price \* product1\_quantity

subtotal2 = product2\_price \* product2\_quantity

# Step 3: Add both subtotals to get total before tax

total\_before\_tax = subtotal1 + subtotal2

# Step 4: Calculate 18% tax

tax = total\_before\_tax \* 0.18

# Step 5: Final total with tax

total\_after\_tax = total\_before\_tax + tax

# Step 6: Print the bill

print("========== BILL ==========")

print(f"Product 1: ₹{product1\_price} × {product1\_quantity} = ₹{subtotal1}")

print(f"Product 2: ₹{product2\_price} × {product2\_quantity} = ₹{subtotal2}")

print(f"Subtotal: ₹{total\_before\_tax}")

print(f"GST @18%: ₹{tax:.2f}")

print(f"Total Amount to Pay: ₹{total\_after\_tax:.2f}")

3.Compute the perimeter and area of a circle given a radius. Use the value of π from the math module.

pie=3.14

radius = 6

perimeter=2\* pie\*radius

area=pie\*radius\*radius

print('perimeter',perimeter)

print('area',area)

output

perimeter 37.68

area 113.03999999999999

4.Given a temperature in Celsius, convert it to Fahrenheit using the formula and print both values.

(F = C × 9/5 + 32

Celsius=32

Fahrenheit=(F=C\*9/5=32)

Print(thetemperatureincelsius,”Celsius”)

Print(thetemperatureinfahrenheit,”Fahrenheit”)

Output:

32C

89.6F

5.What is a compiled language? What is an interpreted language? Explain pros and cons of each. How hybrid languages bring in advantages of both.

Compiled language: A compiled language is one where entire code is translated into executable file into machine language using compiler ie binary form. eg: c,c++

Pros: #Execution is faster

#code privacy

Cons: #portability issues

#nt flexible to changes

Interpreted language :An Interpreted language is one where the code is executed line by line by an interpreter during runtime. Eg:javascript,python.

Pros:

#easier to debug and test.

#platform independent

Cons: #slwer execution

#requires an interpretor installation.

Hybrid : Hybrid languages uses both interpretation and compailation typically,the code is first compiled into intermediate code (byte code) then interpreted or run virtually . Hence python falls under both compilation and interpretation . The bytecode cant be run directly and interpreter is required to run

6.Draw the diagram of how a Python program is executed.

A diagram of a computer language

AI-generated content may be incorrect.

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