Test Plan - Doggy Daycare Calculator (Python)

Version: 1
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Program Description

The Doggy Daycare Calculator coded in Python calculates the number of dogs and hours entered by a user. The hours correspond to the Hours Rate Type: hourly, half day, and full day rate.

Hours Rate Type	**Rate**	**Additional Dog**
Hourly (Max 2 hours)	$7.00/Hr	$7.00/Hr
Half Day (Over 2 hrs - up to 5 hours max)	$20.00	$15.00
Full Day (Over 5 hours - up to 11 hours max)	$30.00	$25.00

Input

- Number of Dogs
  numDogs = int(input('Enter Number of Dogs: '))
- Number of Hours
  numHours = float(input('Enter Number of Hours: '))

Output

Displays the total calculated rate based on the number of dogs and number of hours entered by user.

Test Plan Overview

System tests using black-box testing of all functions of the program. Valid and invalid inputs are tested.

Test Cases

Test Case 1: Hourly Rate (One Dog)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 1 / Enter Number of Hours: 1 2. Enter Number of Dogs: 1 / Enter Number of Hours: 2
Expected Result	1. Display $7.00 2. Display $14.00

Test Case 2: Hourly Rate (Multiple Dogs)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 2 / Enter Number of Hours: 2 2. Enter Number of Dogs: 4 / Enter Number of Hours: 2
Expected Result	1. Display $28.00 2. Display $56.00

Test Case 3: Half Day Rate (One Dog)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 1 / Enter Number of Hours: 2.01 2. Enter Number of Dogs: 1 / Enter Number of Hours: 3.5 3. Enter Number of Dogs: 1 / Enter Number of Hours: 5
Expected Result	1. Display $20.00 2. Display $20.00 3. Display $20.00

Test Case 4: Half Day Rate (Multiple Dogs)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 2 / Enter Number of Hours: 2.01 2. Enter Number of Dogs: 5 / Enter Number of Hours: 3.5 3. Enter Number of Dogs: 7 / Enter Number of Hours: 5
Expected Result	1. Display $35.00 2. Display $80.00 3. Display $110.00

Test Case 5: Full Day Rate (One Dog)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 1 / Enter Number of Hours: 5.01 2. Enter Number of Dogs: 1 / Enter Number of Hours: 7.5 3. Enter Number of Dogs: 1 / Enter Number of Hours: 11
Expected Result	1. Display $30.00 2. Display $30.00 3. Display $30.00

Test Case 6: Full Day Rate (Multiple Dogs)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 2 / Enter Number of Hours: 5.01 2. Enter Number of Dogs: 5 / Enter Number of Hours: 8.5 3. Enter Number of Dogs: 7 / Enter Number of Hours: 11
Expected Result	1. Display $55.00 2. Display $130.00 3. Display $180.00

Test Case 7: Exceeded Hours (One Dog)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 1 / Enter Number of Hours: 11.01 2. Enter Number of Dogs: 1 / Enter Number of Hours: 13.5 3. Enter Number of Dogs: 1 / Enter Number of Hours: 20
Expected Result	1. Display Hours exceeded. 11 hours is the max daycare hours available. Try again. 2. Display Hours exceeded. 11 hours is the max daycare hours available. Try again. 3. Display Hours exceeded. 11 hours is the max daycare hours available. Try again.

Test Case 8: Exceeded Hours (Multiple Dogs)

Summary	Verify inputs produce a correct calculated rate per # Dogs and # Hours.
Test Procedure	When prompted to enter number of hours and dogs.
Test Data	1. Enter Number of Dogs: 2 / Enter Number of Hours: 11.01 2. Enter Number of Dogs: 5 / Enter Number of Hours: 14.5 3. Enter Number of Dogs: 7 / Enter Number of Hours: 25
Expected Result	1. Display Hours exceeded. 11 hours is the max daycare hours available. Try again. 2. Display Hours exceeded. 11 hours is the max daycare hours available. Try again. 1. Display Hours exceeded. 11 hours is the max daycare hours available. Try again.