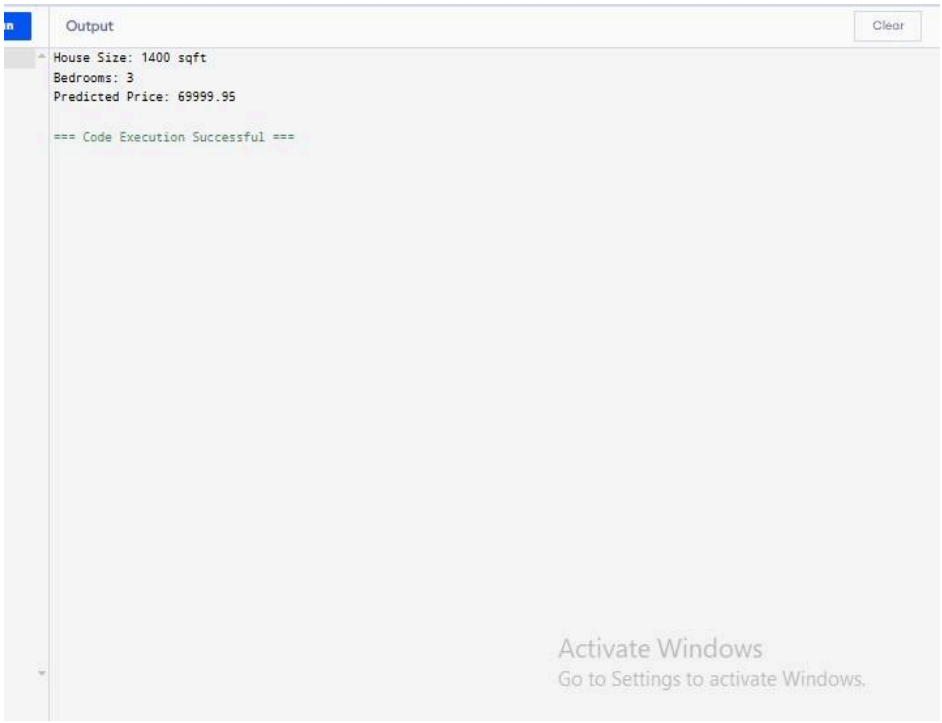
Experiment -14

```
# Dataset: [House Size (sqft), Bedrooms], Price
X = [
    [800, 2],
    [1000, 3],
    [1200, 3],
    [1500, 4],
    [1800, 4]
]
Y = [40000, 50000, 60000, 75000, 90000]

# Initialize weights and bias
w1, w2, b = 0.01, 0.01, 0
lr = 0.0000001

# Training using Gradient Descent
for _ in range(10000):
    for x, y in zip(X, Y):
        pred = w1*x[0] + w2*x[1] + b
        error = y - pred
        w1 += lr * error * x[0]
        w2 += lr * error * x[1]
        b  += lr * error

# Prediction function
def predict(size, bedrooms):
    return w1*size + w2*bedrooms + b

# Test the model
size = 1400
bedrooms = 3
price = predict(size, bedrooms)

print("House Size:", size, "sqft")
print("Bedrooms:", bedrooms)
print("Predicted Price:", round(price, 2))
```

Output:


Output
Clear
House Size: 1400 sqft
Bedrooms: 3
Predicted Price: 69999.95
=== Code Execution Successful ===
Activate Windows
Go to Settings to activate Windows.