Dataset shape: (20640, 9) MedInc HouseAge AveRooms AveBedrms Population AveOccup Latitude 8.3252 41.0 6.984127 1.023810 322.0 2.555556 37.88 8.3014 21.0 6.238137 0.971880 2401.0 2.109842 37.86 7.2574 52.0 8.288136 1.073446 496.0 2.802260 37.85 5.6431 52.0 5.817352 1.073059 558.0 2.547945 37.85 3.8462 52.0 6.281853 1.081081 565.0 2.181467 37.85 Longitude MedHouseVal 0 -122.231 -122.22 3.585 2 -122.243.521 3 -122.25 3.413 -122.25 3.422

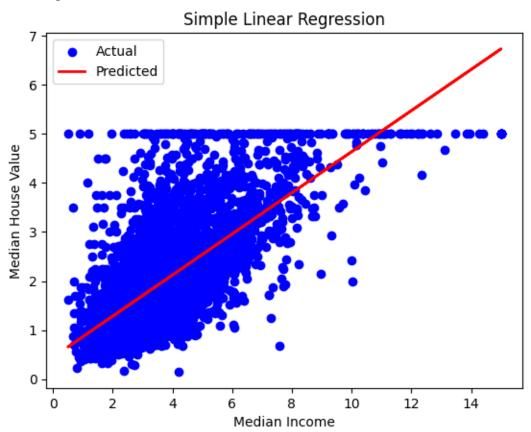
--- Simple Linear Regression ---

MAE: 0.629908653009376 MSE: 0.7091157771765549

R² Score: 0.45885918903846656

Coefficient (slope): 0.4193384939381271

Intercept: 0.4445972916907879



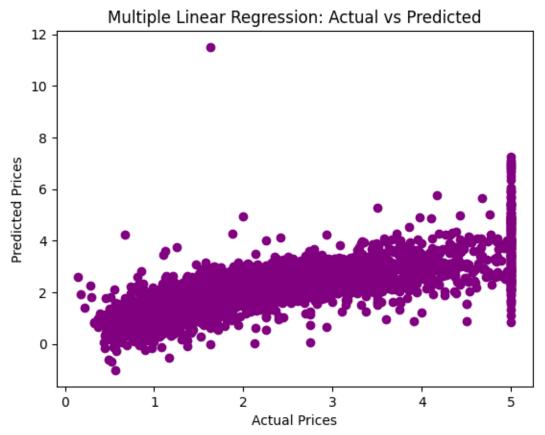
--- Multiple Linear Regression ---

MAE: 0.5332001304956553 MSE: 0.5558915986952444 R² Score: 0.5757877060324508 Coefficients: [4.48674910e-01 9.72425752e-03 -1.23323343e-01 7.83144907e-

01

-2.02962058e-06 -3.52631849e-03 -4.19792487e-01 -4.33708065e-01]

Intercept: -37.02327770606409



```
--- Variance Inflation Factor (VIF) ---
     Feature
                    VIF
0
      MedInc 11.511140
1
    HouseAge
               7.195917
2
              45.993601
    AveRooms
              43.590314
   AveBedrms
              2.935745
4 Population
5
   AveOccup
               1.095243
   Latitude 559.874071
  Longitude 633.711654
```