Predicts the cluster of the new house

The New house :



Average value of the old factor for each cluster :



Link between Old and New Factor (APC) :

|  |  |  |  |
| --- | --- | --- | --- |
|  | Factor 1 | Factor 2 | Factor 3 |
| price | 0,665 | 0,411 | 0,322 |
| sqft\_living (Binned) | 0,883 | 0,204 | 0,017 |
| zipcode | -0,303 | 0,251 | 0,469 |
| waterfront | 0,126 | 0,29 | 0,695 |
| floors | 0,63 | -0,444 | 0,283 |

Cluster center with old factor :

We multiplied the average value with the link between Old and New Factor. But we only used the significant ones.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cluster | Price | sqft\_living | zipcode | waterfront | Floors |
| 1 | 279292,295 | 1583,227276 | 68163,58506 | 0 | 1,046697563 |
| 2 | 763179,447 | 2177,198383 | 68184,77042 | 0,695 | 0,9765 |
| 3 | 635059,105 | 3068,792662 | 68151,51423 | 0 | 1,179524221 |
| 4 | 2245071,13 | 4895,370787 | 68154,48 | 0,635851064 | 1,206382979 |
| 5 | 320097,918 | 1594,733004 | 68169,83365 | 0 | 0,720155821 |
| 6 | 425600 | 1430,46 | 68181,585 | 0 | 0,63 |

Euclidean distance between the new house and the cluster center :

|  |  |
| --- | --- |
| Cluster | Euclidean Distance with new house |
| 1 | 1,53507E+11 |
| 2 | 9583119555 |
| 3 | 2110399424 |
| 4 | 2,4819E+12 |
| 5 | 1,2329E+11 |
| 6 | 60600020008 |

The new house is closer to the cluster 3.