**Tabla de México**

coeficiente de determinación(r2) y un coeficiente de correlación (r)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Entire | Private | Shared | Hotel |
| **“price vs host\_acceptance rate”** | R2 | 7.399650288819615e-05 | 0.006345728627867309 | 0.023481204241051268 | 0.004567948436605462 |
| R | 0.008602121999146266 | 0.07966008177165844 | 0.15323577989833598 | 0.06758659953426761 |
| **“price vs host\_is\_superhost”** | R2 | 0.00020507834413963089 | 0.012868056757275093 | 0.005369661208087684 | 0.06232016600069623 |
| R | 0.014320556697965022 | 0.11343745747007508 | 0.07327797218869858 | 0.249640072906367 |
| **“accommodates vs bathrooms”** | R2 | 0.010087477942706813 | 0.0010616804049606854 | 0.001085889490141989 | 0.09915750499323617 |
| R | 0.10043643732583714 | 0.0325834375866127 | 0.03295283736102233 | 0.3148928468435512 |
| **“price vs review\_scores\_cleanliness”** | R2 | 0.010087477942706813 | 0.01196452704361406 | 0.000519129882945446 | 0.013660087465882986 |
| R | 0.10043643732583714 | 0.10938248051499865 | 0.02278442193573157 | 0.11687637685128242 |
| **“price vs host\_identity\_verified”** | R2 | 0.001243324196534612 | 0.10785742992723868 | 0.06441181255444517 | 0.02155582197416772 |
| R | 0.035260802550914974 | 0.32841654941132103 | 0.25379482373453793 | 0.14681901094261507 |
| **“price vs instant\_bookable”** | R2 | 0.00500499399092591 | 0.00401549094604936 | 0.030863138455546668 | 0.03129203223743138 |
| R | 0.07074598215394222 | 0.06336790154367872 | 0.17567907802452365 | 0.17689554046790262 |
| **“Price vs property\_type”** | R2 | 3.105986837403929e-05 | 0.03469606564460681 | 0.00044792215176303607 | 0.06044840450836175 |
| R | 0.005573138108286865 | 0.18626879943943056 | 0.021164171416878954 | 0.24586257240247397 |

**Tabla de Nápoles (Naples)**

coeficiente de determinación(r2) y un coeficiente de correlación (r)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Entire | Private | Shared | Hotel |
| **“price vs host\_acceptance rate”** | R2 | 0.0012769730303644478 | 0.011660913371635884 | 0.009314677900963741 | 0.09911619048937115 |
| R | 0.035734759413831904 | 0.1079857091083625 | 0.09651257897789149 | 0.31482723911594934 |
| **“price vs host\_is\_superhost”** | R2 | 0.0023503424290153285 | 0.01436328649304397 | 0.022834737159362017 | 0.003701141808305941 |
| R | 0.048480330331128405 | 0.11984692942684835 | 0.15111167115534796 | 0.060837010185461456 |
| **“accommodates vs bathrooms”** | R2 | 0.0 | 0.0 | 0.0 | 0.0 |
| R | 0.0 | 0.0 | 0.0 | 0.0 |
| **“price vs review\_scores\_cleanliness”** | R2 | 0.017103074744507007 | 0.029698445354624403 | 0.04548818897995188 | 0.10707069064472385 |
| R | 0.1307787243572402 | 0.17233236885340028 | 0.213279602822098 | 0.32721658063845704 |
| **“price vs host\_identity\_verified”** | R2 | 0.0003856962640410577 | 3.2606861988249136e-08 | 0.0853732660942208 | 0.030127118845644563 |
| R | 0.019639151306537095 | 0.00018057370237177156 | 0.29218703957263537 | 0.1735716533470963 |
| **“price vs instant\_bookable”** | R2 | 0.00022014546634796517 | 0.03094885905294975 | 0.034146761007315174 | 0.016391682686158537 |
| R | 0.014837299833459092 | 0.175922878139683 | 0.18478842227616743 | 0.1280300069755467 |
| **“Price vs property\_type”** | R2 | 0.0022735326435887604 | 0.011049622496128508 | 0.020855206988101505 | 0.008987796678751492 |
| R | 0.04768157551495924 | 0.10511718459000179 | 0.14441331998157755 | 0.09480399083768305 |

**Tabla de México para encontrar el modelo matemático con mayor coeficiente de Pearson (R)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Entire | Private | Shared | Hotel |
| **“price vs host\_acceptance rate”** | 0.0086021 | 0.0796601 | 0.1532358 | 0.0675866 |
|  |
| **“price vs host\_is\_superhost”** | 0.0143206 | 0.1134375 | 0.073278 | 0.2496401 |  |
|  |
| **“accommodates vs bathrooms”** | 0.1004364 | 0.0325834 | 0.0329528 | 0.3148928 |  |
|  |
| **“price vs review\_scores\_cleanliness”** | 0.1004364 | 0.1093825 | 0.0227844 | 0.1168764 |  |
|  |
| **“price vs host\_identity\_verified”** | 0.0352608 | 0.3284165 | 0.2537948 | 0.146819 |  |
|  |
| **“price vs instant\_bookable”** | 0.070746 | 0.0633679 | 0.1756791 | 0.1768955 |  |
|  |
| **“Price vs property\_type”** | 0.0055731 | 0.1862688 | 0.0211642 | 0.2458626 |  |
|  |

**Resultados Finales**

Para cada tipo de alojamiento, la variable con mayor **R** es:

* **Entire:** "Accommodates vs Bathrooms" → **R = 0.1004**
* **Private:** "Price vs Host Identity Verified" → **R = 0.3284**
* **Shared:** " Price vs Host Identity Verified" → **R = 0.2537**
* **Hotel:** "Accommodates vs Bathrooms" → **R = 0.3148**

**Modelos matemáticos México:**

**y= ax + b**

Donde

* y = predicciones obtenidas (variable dependiente)
* a = coeficiente (pendiente)
* x = valores de la variable x
* b = intersección

|  |  |  |
| --- | --- | --- |
| Variable | Categoría | Modelo matemático |
| Accommodates vs Bathrooms | **Entire** | Y = 0.70112457⋅X + 2.5469513180235097 |
| Price vs Host Identity Verified | **Private** | Y = −635.75587412⋅X + 1402.6841503268051 |
| Price vs Host Identity Verified | **Shared** | Y = −279.00123773⋅X + 687.1436619718311 |
| Accommodates vs Bathrooms | **Hotel** | Y = 0.48783897⋅X + 2.4720053641904705 |

**Tabla de Naples para encontrar el modelo matemático con mayor coeficiente de Pearson (R)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Entire | Private | Shared | Hotel |
| **“price vs host\_acceptance rate”** | 0.0357348 | 0.1079857 | 0.0965126 | 0.3148272 |
|  |
| **“price vs host\_is\_superhost”** | 0.0484803 | 0.1198469 | 0.1511117 | 0.060837 |  |
|  |
| **“accommodates vs bathrooms”** | 0 | 0 | 0 | 0 |  |
|  |
| **“price vs review\_scores\_cleanliness”** | 0.1307787 | 0.1723324 | 0.2132796 | 0.3272166 |  |
|  |
| **“price vs host\_identity\_verified”** | 0.0196392 | 0.0001806 | 0.292187 | 0.1735717 |  |
|  |
| **“price vs instant\_bookable”** | 0.0148373 | 0.1759229 | 0.1847884 | 0.12803 |  |
|  |
| **“Price vs property\_type”** | 0.0476816 | 0.1051172 | 0.1444133 | 0.094804 |  |
|  |

**Resultados Finales**

Para cada tipo de alojamiento, la variable con mayor **R** es:

* **Entire:** "Price vs review\_scores\_cleanliness" → **R = 0.1308**
* **Private:** "Price vs review\_scores\_cleanliness" → **R = 0.1723**
* **Shared:** " Price vs host\_identity\_verified" → **R = 0.2921**
* **Hotel:** "Price vs review\_scores\_cleanliness" → **R = 0.3272**

|  |  |  |
| --- | --- | --- |
| Tipo de Alojamiento | Modelo seleccionado | R más alto |
| Entire | Price vs review\_scores\_cleanliness | 0.1308 |
| Private | Price vs review\_scores\_cleanliness | 0.1723 |
| Shared | Price vs host\_identity\_verified | 0.2921 |
| Hotel | Price vs review\_scores\_cleanliness | 0.3272 |

**Modelos matemáticos Naples:**

**y= ax + b**

Donde

* y = predicciones obtenidas (variable dependiente)
* a = coeficiente (pendiente)
* x = valores de la variable x
* b = intersección

|  |  |  |
| --- | --- | --- |
| Variable | Categoría | Modelo matemático |
| Price vs review\_scores\_cleanliness | **Entire** | Y = 29.2244⋅X – 47.2695 |
| Price vs review\_scores\_cleanliness | **Private** | Y = 48.3462⋅X − 145.1619 |
| Price vs host\_identity\_verified | **Shared** | Y = −62.1⋅X + 100.0 |
| Price vs review\_scores\_cleanliness | **Hotel** |  |

Sipi, seguimos con Hotel:

• Hotel: "Price vs review\_scores\_cleanliness" → R = 0.3272

{'fit\_intercept': True,

'copy\_X': True,

'n\_jobs': None,

'positive': False,

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'n\_features\_in\_': 1,

'coef\_': array([83.78461681]),

'rank\_': 1,

'singular\_': array([1.39813157]),

'intercept\_': -303.7618483294886}