

## Raw Variables

```
['id', 'listing_url', 'scrape_id', 'last_scraped', 'name', 'description', 'neighborhood_overview',  
'picture_url', 'host_id', 'host_url', 'host_name', 'host_since', 'host_location', 'host_about',  
'host_response_time', 'host_response_rate', 'host_acceptance_rate', 'host_is_superhost',  
'host_thumbnail_url', 'host_picture_url', 'host_neighbourhood', 'host_listings_count',  
'host_total_listings_count', 'host_verifications', 'host_has_profile_pic', 'host_identity_verified',  
'neighbourhood', 'neighbourhood_cleansed', 'neighbourhood_group_cleansed', 'latitude', 'longitude',  
'property_type', 'room_type', 'accommodates', 'bathrooms_text', 'bedrooms', 'beds',  
'amenities', 'price', 'minimum_nights', 'maximum_nights', 'minimum_minimum_nights',  
'maximum_minimum_nights', 'minimum_maximum_nights', 'maximum_maximum_nights', 'minimum_nights_avg_ntm',  
'maximum_nights_avg_ntm', 'calendar_updated', 'has_availability', 'availability_30', 'availability_60',  
'availability_90', 'availability_365', 'calendar_last_scraped', 'number_of_reviews',  
'number_of_reviews_ltm', 'number_of_reviews_l30d', 'first_review', 'last_review', 'review_scores_rating',  
'review_scores_accuracy', 'review_scores_cleanliness', 'review_scores_checkin',  
'review_scores_communication', 'review_scores_location', 'review_scores_value', 'license',  
'instant_bookable', 'calculated_host_listings_count', 'calculated_host_listings_count_entire_homes',  
'calculated_host_listings_count_private_rooms', 'calculated_host_listings_count_shared_rooms',  
'reviews_per_month']
```

Extract

## Text Variables

```
['host_name_sounds_trad_irish', 'host_name_sounds_arab', 'host_name_sounds_africa',  
'host_name_sounds_asia', 'host_name_sounds_eastern_europe', 'host_name_sounds_latin_america',  
'host_name_sounds_west', 'host_name_sounds_rare', 'english_writing_host', 'compound_descr',  
'negativity_descr', 'neutrality_descr', 'positivity_descr', 'compound_neigh_over',  
'negativity_neigh_over', 'neutrality_neigh_over', 'positivity_neigh_over', 'compound_host_ab',  
'negativity_host_ab', 'neutrality_host_ab', 'positivity_host_ab', 'prop_of_eng_reviews',  
'mean_compound', 'mean_negativity', 'mean_neutrality', 'mean_positivity', 'mean_review_length',  
'prop_of_neg_comp', 'most_neg_compound', 'most_pos_compound']
```

## Image Variables

```
['count', 'brightness', 'contrast', 'no_img_bathroom', 'no_img_bedroom', 'no_img_dining',  
'no_img_hallway', 'no_img_kitchen', 'no_img_living', 'no_img_others']
```

## Spatial Variables

```
['in_city', 'bars', 'cafes', 'fast_foods', 'restaurants', 'library', 'university',  
'bus_train_tram_station', 'bicycle_rentals', 'parking', 'taxi', 'casinos', 'cinemas', 'nightclubs',  
'social_amenities', 'sex_amenities', 'theatres_artscentre', 'malls', 'kiosks', 'supermarkets',  
'nearest_sight', '2nd_nearest_sight', '3rd_nearest_sight', 'mean_dist_sight', 'nearest_travel_oss',  
'mean_dist_travel']
```

Filter

```
['id', 'name', 'last_scraped', 'description', 'neighborhood_overview', 'host_id', 'host_url',  
'host_name', 'host_since', 'host_location', 'host_about', 'host_is_superhost', 'host_listings_count',  
'host_has_profile_picture', 'host_identity_verified', 'neighbourhood_cleansed', 'latitude', 'longitude',  
'property_type', 'room_type', 'accommodates', 'bathrooms_text', 'bedrooms', 'beds', 'amenities',  
'minimum_nights', 'maximum_nights', 'has_availability', 'availability_30', 'availability_60',  
'availability_90', 'availability_365', 'number_of_reviews', 'number_of_reviews_ltm',  
'number_of_reviews_l30d', 'first_review', 'last_review', 'review_scores_rating',  
'review_scores_accuracy', 'review_scores_cleanliness', 'review_scores_checkin',  
'review_scores_communication', 'review_scores_location', 'review_scores_value', 'instant_bookable',  
'calculated_host_listings_count', 'reviews_per_month', 'host_has_profile_pic', 'minimum_minimum_nights',  
'maximum_minimum_nights', 'minimum_maximum_nights', 'maximum_maximum_nights', 'minimum_nights_avg_ntm',  
'maximum_nights_avg_ntm', 'calculated_host_listings_count_entire_homes',  
'calculated_host_listings_count_private_rooms', 'calculated_host_listings_count_shared_rooms', 'price']
```

Formating/  
Summarizing

## One-Hot, Dates, Text Lengths...

```
['host_identity_verified', 'instant_bookable', 'bath_number_1', 'bath_number_2', 'bedrooms_1', 'bedrooms_2',  
'host_location_country_Ireland', 'neighbourhood_cleansed_Dublin_City', 'property_type_Entire_rental_unit',  
'property_type_Entire_residential_home', 'property_type_Others', 'room_type_Entire_home/apt',  
'room_type_Private_room', 'bath_kind_Normal', 'bath_kind_Private', 'bath_kind_Shared', 'host_since',  
'host_listings_count', 'latitude', 'longitude', 'accommodates', 'beds', 'minimum_nights', 'maximum_nights',  
'availability_30', 'availability_60', 'availability_90', 'availability_365', 'number_of_reviews',  
'number_of_reviews_ltm', 'number_of_reviews_l30d', 'first_review', 'last_review', 'review_scores_rating',  
'review_scores_accuracy', 'review_scores_cleanliness', 'review_scores_communication',  
'review_scores_location', 'review_scores_value', 'calculated_host_listings_count', 'reviews_per_month',  
'minimum_minimum_nights', 'maximum_minimum_nights', 'minimum_maximum_nights', 'maximum_maximum_nights',  
'minimum_nights_avg_ntm', 'maximum_nights_avg_ntm', 'calculated_host_listings_count_entire_homes',  
'calculated_host_listings_count_private_rooms', 'calculated_host_listings_count_shared_rooms',  
'name_length', 'description_length', 'neighborhood_overview_length', 'host_about_length']
```

## Amenities

```
['Bathtub', 'Bed linens', 'Breakfast', 'Cable TV', 'Carbon monoxide alarm', 'Cooking basics', 'Dishes and  
silverware', 'Dishwasher', 'Elevator', 'Extra pillows and blankets', 'Fire extinguisher', 'First aid kit', 'Hair  
dryer', 'Hangers', 'Host greets you', 'Hot water', 'Indoor fireplace', 'Iron', 'Lock on bedroom door',  
'Long term stays allowed', 'Luggage dropoff allowed', 'Microwave', 'Private entrance', 'Shower gel', 'Smoke  
alarm', 'Oven_available', 'Stoves_available', 'Refridgerator_available', 'Garden_backyard_available',  
'Free_parking', 'Paid_parking', 'Workspace', 'Shampoo_Conditioner_available', 'Coffee_machine_available',  
'Dryer_available', 'Washer_available', 'Patio_balcony_available', 'Kitchen_available', 'Safe_available',  
'TV_available', 'Baby_friendly']
```

## Processed Variables

```
['host_identity_verified', 'instant_bookable', 'Bathtub', 'Bed linens', 'Breakfast', 'Cable TV', 'Carbon monoxide alarm', 'Cooking basics', 'Dishes and silverware', 'Dishwasher', 'Fire extinguisher', 'First aid kit', 'Hair  
dryer', 'Hangers', 'Host greets you', 'Hot water', 'Indoor fireplace', 'Iron', 'Lock on bedroom door', 'Long term stays allowed', 'Microwave', 'Private entrance', 'Shower gel', 'Smoke alarm', 'Oven_available',  
'Stoves_available', 'Refridgerator_available', 'Garden_backyard_available', 'Paid_parking', 'Workspace', 'Shampoo_Conditioner_available', 'Coffee_machine_available', 'Dryer_available', 'Washer_available',  
'Patio_balcony_available', 'Kitchen_available', 'Safe_available', 'TV_available', 'Baby_friendly', 'host_name_sounds_west', 'host_name_sounds_rare', 'in_city', 'sex_amenities', 'bath_number_1', 'bath_number_2', 'bedrooms_1',  
'bedrooms_2', 'host_location_country_Ireland', 'neighbourhood_cleansed_Dublin_City', 'property_type_Entire_rental_unit', 'property_type_Entire_residential_home', 'property_type_Others', 'room_type_Entire_home/apt',  
'room_type_Private_room', 'bath_kind_Normal', 'bath_kind_Private', 'bath_kind_Shared', 'host_since', 'host_listings_count', 'latitude', 'longitude', 'accommodates', 'beds', 'minimum_nights', 'maximum_nights',  
'availability_30', 'availability_60', 'availability_90', 'availability_365', 'number_of_reviews', 'number_of_reviews_ltm', 'number_of_reviews_l30d', 'first_review', 'last_review', 'review_scores_rating',  
'review_scores_accuracy', 'review_scores_cleanliness', 'review_scores_communication', 'review_scores_location', 'review_scores_value', 'calculated_host_listings_count', 'reviews_per_month', 'minimum_minimum_nights',  
'maximum_minimum_nights', 'minimum_maximum_nights', 'maximum_maximum_nights', 'minimum_nights_avg_ntm', 'maximum_nights_avg_ntm', 'calculated_host_listings_count_entire_homes', 'calculated_host_listings_count_private_rooms',  
'calculated_host_listings_count_shared_rooms', 'name_length', 'description_length', 'neighborhood_overview_length', 'host_about_length', 'prop_of_eng_reviews', 'mean_compound', 'mean_negativity', 'mean_neutrality',  
'mean_positivity', 'mean_review_length', 'prop_of_neg_comp', 'most_neg_compound', 'most_pos_compound', 'compound_descr', 'negativity_descr', 'neutrality_descr', 'positivity_descr', 'compound_neigh_over',  
'negativity_neigh_over', 'neutrality_neigh_over', 'positivity_neigh_over', 'compound_host_ab', 'negativity_host_ab', 'neutrality_host_ab', 'positivity_host_ab', 'bars', 'cafes', 'fast_foods', 'restaurants', 'library',  
'university', 'bus_train_tram_station', 'bicycle_rentals', 'parking', 'taxi', 'casinos', 'cinemas', 'nightclubs', 'social_amenities', 'theatres_artscentre', 'malls', 'supermarkets', 'nearest_sight', '2nd_nearest_sight',  
'3rd_nearest_sight', 'mean_dist_sight', 'nearest_travel_oss', 'mean_dist_travel', 'count', 'brightness', 'contrast', 'no_img_bathroom', 'no_img_bedroom', 'no_img_dining', 'no_img_hallway', 'no_img_kitchen', 'no_img_living',  
'no_img_others']
```

Decorrelate

## Final Variables

```
['host_identity_verified', 'instant_bookable',  
'Breakfast', 'Carbon_monoxide_alarm', 'Elevator',  
'Fire_extinguisher', 'Private_entrance', 'Workspace',  
'Shampoo_Conditioner_available', 'Dryer_available',  
'TV_available', 'kiosks', 'host_since', 'latitude',  
'longitude', 'number_of_reviews', 'last_review',  
'review_scores_communication', 'name_length',  
'prop_of_eng_reviews', 'mean_review_length',  
'negativity_descr', 'negativity_neigh_over',  
'negativity_host_ab', 'parking', 'brightness',  
'contrast', 'city_life_pca1', 'city_life_pca2',  
'city_life_pca3', 'city_life_pca4', 'city_life_pca5',  
'travel_touristic_pca', 'kitchen_pca1',  
'kitchen_pca2', 'kitchen_pca3', 'kitchen_pca4',  
'accommodation_size_pca1', 'accommodation_size_pca2',  
'accommodation_size_pca3', 'accommodation_size_pca4',  
'accommodation_size_pca5', 'accommodation_size_pca6',  
'host_listings_pca1', 'host_listings_pca2',  
'host_listings_pca3', 'min_nights_pca',  
'availability_pca', 'review_total_pca1',  
'review_total_pca2', 'review_total_pca3',  
'review_total_pca4', 'max_nights_pca',  
'review_amount_pca1', 'review_amount_pca2',  
'host_ab_pca1', 'host_ab_pca2', 'neigh_over_pca1',  
'neigh_over_pca2', 'descr_pca1', 'descr_pca2',  
'img_no_pca1', 'img_no_pca2', 'img_no_pca3',  
'img_no_pca4', 'img_no_pca5']
```