**Constraints - According to Tables in Relational Model**

|  |  |
| --- | --- |
| **Variables** | **Constraints** |

**Guest**

|  |  |
| --- | --- |
| GuestID | Primary key constraint: each GuestID must be unique and not Null |
| first\_name | Domain constraint: must be a string |
| middle\_name | Domain constraint: must be a string |
| last\_name | Domain constraint: must be a string |
| house\_number | Domain constraint: must be an integer |
| street\_name | Domain constraint: must be a string |
| city | Domain constraint: must be a string |
| country | Domain constraint: must be a string |
| state\_province | Domain constraint: must be a string |
| day | Domain constraint: must be an integer + Check constraint : must be between 1 and 31 |
| month | Domain constraint: must be an integer + Check constraint: must be between 1 and 12 |
| year | Domain constraint: must be an integer |
| acccept\_TAC | Domain constraint: must be an boolean |
| Email\_ID | Foreign key constraint: email address must exist in order to add |
| phone\_ID | Foreign key constraint: phone number must exist in order to add |
| booked\_property\_id | Foreign key constraint: booked property must exist in order to add |
| additional\_guest\_id | Foreign key constraint: additional guest must exist in order to add |

**Guest Emails**

|  |  |
| --- | --- |
| Email\_ID | Primary key constraint: each Email\_ID must be unique and not Null |
| email\_address | Domain constraint: must be a valid email address |

**Additional Guests**

|  |  |
| --- | --- |
| additional\_guest\_id | Primary key constraint: each additional\_guest\_id must be unique and not Null |
| Guest\_ID | Foreign key constraint: Guest must exist in order to add to additional guests |

**GuestPhoneNumbers**

|  |  |
| --- | --- |
| phone\_ID | Primary key constraint: each phone\_ID must be unique and not Null |
| number | Domain constraint: must be an integer |

**GuestBookedProperties**

|  |  |
| --- | --- |
| booked\_property\_id | Primary key constraint: each booked\_property\_id must be unique and not Null |
| PropertyID | Foreign key constraint: property must exist in order to book property |

**Payment**

|  |  |
| --- | --- |
| TransactionID | Primary key constraint: each GuestID must be unique and not Null |
| host\_id | Foreign key constraint: hast must exist in order to receive payment |
| guest\_id | Foreign key constraint: guest must exist in order to provide payment |
| payment\_type | Domain constraint: must be a string |
| payement\_amount | Domain constraint: must be an integer |
| payment\_status | Domain constraint: must be a string |
| day | Domain constraint: must be an integer + Check constraint : must be between 1 and 31 |
| month | Domain constraint: must be an integer + Check constraint: must be between 1 and 12 |
| year | Domain constraint: must be an integer |

**Rental Agreement**

|  |  |
| --- | --- |
| AgreementID | Primary key constraint: each AgreementID must be unique and not Null |
| signed\_bool | Domain constraint: must be a boolean |
| day | Domain constraint: must be an integer + Check constraint : must be between 1 and 31 |
| month | Domain constraint: must be an integer + Check constraint: must be between 1 and 12 |
| year | Domain constraint: must be an integer |
| day | Domain constraint: must be an integer + Check constraint : must be between 1 and 31 |
| month | Domain constraint: must be an integer + Check constraint: must be between 1 and 12 |
| year | Domain constraint: must be an integer |

**Host**

|  |  |
| --- | --- |
| HostID | Primary key constraint: each HostID must be unique and not Null |
| first\_name | Domain constraint: must be a string |
| middle\_name | Domain constraint: must be a string |
| last\_name | Domain constraint: must be a string |
| house\_number | Domain constraint: must be an integer |
| street\_name | Domain constraint: must be a string |
| city | Domain constraint: must be a string |
| country | Domain constraint: must be a string |
| state\_province | Domain constraint: must be a string |
| day | Domain constraint: must be an integer + Check constraint : must be between 1 and 31 |
| month | Domain constraint: must be an integer + Check constraint: must be between 1 and 12 |
| year | Domain constraint: must be an integer |
| Experience\_ID | Foreign key constraint : offered experiences need to exist in order to add |
| email\_ID | Foreign key constraint: host email address needs to exist on order to add |
| HostphoneID | Foreign key constraint: host phone number needs to exist in order to add |
| listedPropertyID | Foreign key constraint: property must exist in order to add |

**Host Emails**

|  |  |
| --- | --- |
| Email\_ID | Primary key constraint: each Email\_ID must be unique and not Null |
| email\_address | Domain constraint: must be a string |

**HostPhoneNumbers**

|  |  |
| --- | --- |
| HostphoneID | Primary key constraint: each HostphoneID must be unique and not Null |
| number | Domain constraint: must be an integer |

**Property**

|  |  |
| --- | --- |
| PropertyID | Primary key constraint: each PropertyID must be unique and not Null |
| property\_type | Domain constraint: must be a string |
| room\_type | Domain constraint: must be a string |
| bathrooms | Domain constraint: must be an integer |
| bedrooms | Domain constraint: must be an integer |
| beds | Domain constraint: must be an integer |
| kitchens | Domain constraint: must be an integer |
| internet\_access | Domain constraint: must be a boolean |
| house\_number | Domain constraint: must be an integer |
| street\_name | Domain constraint: must be a string |
| city | Domain constraint: must be a string |
| state\_province | Domain constraint: must be a string |
| country | Domain constraint: must be a string |
| apt\_number | Domain constraint: must be an integer |
| price | Domain constraint: must be an integer |
| max\_occupancy | Domain constraint: must be an integer |
| min\_occupancy | Domain constraint: must be an integer |
| home\_type | Domain constraint: must be a string |
| amenities | Domain constraint: must be a string |
| cleaning\_fees | Domain constraint: must be an integer |
| transaction\_fees | Domain constraint: must be an integer |
| restocking\_fees | Domain constraint: must be an integer |
| reviewID | Foreign key constraint: review must exist in order to add to property |

**Adventures**

|  |  |
| --- | --- |
| adventureID | Primary key constraint: each adventureID must be unique and not Null |
| adventure\_type | Domain constraint: must be a string |
| city | Domain constraint: must be a string |
| state\_province | Domain constraint: must be a string |
| country | Domain constraint: must be a string |
| price | Domain constraint: must be an integer |
| language | Domain constraint: must be a string |
| days\_long | Domain constraint: must be an integer |
| transportation | Domain constraint: must be a string |
| group\_size | Domain constraint: must be an integer |
| activity\_level | Domain constraint: must be an integer |
| mealID | Foreign key constraint: meal must exist in order to add to adventure |
| reviewID | Foreign key constraint: review must exist in order to add it to the adventure |

**Meals**

|  |  |
| --- | --- |
| mealID | Primary key constraint: each mealID must be unique and not Null |
| name | Domain constraint: must be a string |

**Experiences**

|  |  |
| --- | --- |
| ExperienceID | Primary key constraint: each ExperienceID must be unique and not Null |
| Experience\_type | Domain constraint: must be a string |
| city | Domain constraint: must be a string |
| state\_province | Domain constraint: must be a string |
| language | Domain constraint: must be a string |
| price | Domain constraint: must be an integer |
| country | Domain constraint: must be a string |
| reviewID | Foreign key constraint : review must exist in order to add it to the experience |

**Review**

|  |  |
| --- | --- |
| reviewID | Primary key constraint: each reviewID must be unique and not Null |
| guestID | Foreign key constraint : must be a guest to leave review |
| communication | Domain constraint: must be an integer + Check constraint: must be between 1 and 5 |
| cleanliness | Domain constraint: must be an integer + Check constraint: must be between 1 and 5 |
| value | Domain constraint: must be an integer + Check constraint: must be between 1 and 5 |
| location | Domain constraint: must be an integer + Check constraint: must be between 1 and 5 |

**Branches**

|  |  |
| --- | --- |
| branchID | Primary key constraint: each branchID must be unique and not Null |
| country | Domain constraint: must be a string |
| EmployeeID | Foreign key constraint: must have employees |
| ManagerID | Foreign key constraint: must have managers |
| HostID | Foreign key constraint: must have hosts |

**Employees**

|  |  |
| --- | --- |
| EmployeeID | Primary key constraint: each EmployeeID must be unique and not Null |
| first\_name | Domain constraint: must be a string |
| middle\_name | Domain constraint: must be a string |
| last\_name | Domain constraint: must be a string |
| house\_number | Domain constraint: must be an integer |
| street\_name | Domain constraint: must be a string |
| city | Domain constraint: must be a string |
| country | Domain constraint: must be a string |
| state\_province | Domain constraint: must be a string |
| position | Domain constraint: must be a string |
| Salary | Domain constraint: must be an integer |

**Manager**

|  |  |
| --- | --- |
| ManagerID | Primary key constraint: each ManagerID must be unique and not Null |
| EmployeeID | Foreign key constraint: must be an employee in order to be a manager |