**Booking System App**

* ***Description:***

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* ***Database definitions***

Table: *Continents*

* Id – Integer, Primary Key
* Name – Text with length [3, 15] **(required)**
* Countries - Collection of type Country (not included in actual database) **(required)**

Table: *Countries*

* Id – Integer, Primary Key
* Name – text with length [3, 50] **(required)**
* Capital – text with length [3, 50] **(required)**
* Population – Long **(required)**
* Continent\_Id – integer, foreign key **(required)**
* Continent - Continent
* Details – text with length [10, 500] **(required)**
* Currency – text with length [2, 5] **(required)**
* FlagImage – string **(required)**

Table: *Languages*

* Id – Integer, Primary Key
* Name – text with length [2, 30] **(required)**

Table: *CountriesLanguages*

* Country\_Id – Integer, Primary Key, Foreign Key **(required)**
* Country - Country
* Language\_Id – Integer, Primary Key, Foreign Key **(required)**
* Language – Language

Table: *Cities*

* Id – Integer, Primary Key
* Name – text with length [3, 50] **(required)**
* Population – uint **(required)**
* Area – text with length [3, 50] **(required)**
* Details – text with length [10, 200] **NULLABLE**
* Country\_Id – integer, foreign key **(required)**
* Country – Country
* Landmarks – a collection of type Landmark (not included in actual database) ***NULLABLE***. **It is possible that one city may not have any landmarks!**
* Hotels – a collection of type Hotel (not included in actual database) ***NULLABLE.* It is possible that one city may not have any hotels!**

Table: *Landmarks*

* Id– Integer, Primary Key
* Name – text with length [3, 50] **(required)**
* Address – text with length [5, 80] **(required)**
* Details – text with length [5, 500] ***NULLABLE***
* City\_Id – integer, foreign key **(required)**
* City – City
* TicketPrice – decimal **NULLABLE**
* IsActive – boolean **(required)**

Table: *Hotels*

* Id– Integer, Primary Key
* Name – text with length [3, 50] **(required)**
* Address – text with length [5, 80] **(required)**
* City\_Id – integer, foreign key **(required)**
* City – City
* StarRate – integer [1,5] **(required)**
* Details – text with length [5, 500] ***NULLABLE***
* CheckIn – DateTime. ***Format to “HH:mm”* (required)**
* CheckOut – DateTime. ***Format to “HH:mm”* (required)**
* Parking – Boolean ***NULLABLE***
* Pets – Boolean ***NULLABLE***
* IsActive – boolean **(required)**
* Rooms – a dictionary<Room, **int**> **where int is the count of available rooms in the hotel. Not included in actual database. (required)**
* Reservations – a collection of HotelReservation

Table: *Rooms*

* Id– Integer, Primary Key
* Type – RoomType enum

(*Single* = 1, *Double* = 2, *Triple* = 3, *Apartment* = 4) **(required)**

* PricePerNight – decimal **(required)**
* Wi-fi – Boolean ***NULLABLE***
* IsReserved – Boolean **(required)**
* IsActive – Boolean **(required)**

Table: *HotelsRooms*

* Hotel\_Id – Integer, Primary Key, Foreign Key **(required)**
* Hotel - Hotel
* Room\_Id – Integer, Primary Key, Foreign Key **(required)**
* Room – Room

Table: *HotelReservations*

* Id – integer, Primary key
* Price – decimal **(required)**
* StartDate – datetime **(required)**
* EndDate – datetime **(required)**
* Hotel\_Id – integer, foreign key **(required)**
* Hotel – Hotel
* User\_Id – integer, foreign key **(required)**
* User – IdentityUser (or ApplicationUser if custom)
* CreatedOn – datetime **(required)**
* IsActive – Boolean **(required)**

Table: *Airports*

* Id – integer, primary key
* Name – text with length [3, 50] **(required)**
* City\_Id – integer, foreign key **(required)**
* City – City

Table: *Airlines*

* Id – integer, primary key
* Name – text with length [3, 50] **(required)**
* Image – string***NULLABLE***
* WebSiteURL – string **(required)**

Table: *Flights*

* Id – integer, primary key
* Airline\_Id – integer, foreign key **(required)**
* Airline - Airline
* DepartureAirport\_Id – integer, foreign key **(required)**
* DepartureAirport - Airport
* ArrivalAirport\_Id – integer, foreign key **(required)**
* ArrivalAirport - Airport
* DepartureTime – datetime **(required)**
* ArrivalTime – datetime **(required)**
* DurationMin – int (required)
* CabinClass – enum of type CabinClass **(required)**
* Price – decimal **(required)**
* User\_Id – int **(required)**
* User - IdentityUser(or custom ApplicationUser)
* CreatedOn – datetime **(required)**
* SeatNumber – int *(random generated number in range 1 to 100*) **(required)**
* IsActive – Boolean **(required)**