Written ERD file changes for the   
“Flights Booking System”  
project

Course: Data Management 1, Academic year: 2023 / 2024,

Supervised by: Pr. ECHIHABI Karima

*Safae HAJJOUT, Kawtar LABZAE, Othmane AZOUBI, Mounia BADDOU*

*Mohammed VI Polytechnic University, College of Computing, School of Computer Science*

After our first submission and following Professor Echihabi’s and the TA’s remarks, we have elected to make the following changes to our ERD:

**Removed weak entities Child and Service along with their relationships:**

The Child entity could not be considered as weak as children also hold passport ID’s. However adding it will only further unnecessarily complicate the system with variables that could essentially be handled on the backend level.

As for the Service entity, it was merged with the PerksCard entity to create the FidelityCard entity containing information on reduction price and the card’s type which alludes to the services it may offer.

**Spliced up the full names of User and Passenger entities:**

This change is for the sake of proper and clean data, and simplifying the data verification process later on.

**Added the Reservation entity between User and Ticket:**

Our previous model made it much harder to assess how the Ticket entities will be stored when the one of the User entities books them, thus the need for a Reservation entity that stores the tickets associated to a particular user.

**Removed the “transactionID” attribute from Ticket:**

Our service delegates the payment operation to external parties. As such we decided it was best not to include this attribute.

**Divided the “seats” attribute in the Airplane entity into multiple class seats:**

As each Airplane entity offers a different seating disposition for each class depending on its model, and users can choose from the available class options which to book a ticket for. We believed it would make more sense for this information to be available.

**Changed the name of the “capacity” attribute in the Airplane entity to “maxWeight”:**

This is only a name clarification to make sure the meaning comes across.

**Removed reservedSeats attribute from the Flight entity:**

It is a calculable attribute.

**Renamed the id’s attribute in all entities:**

For cleaner and less cluttered names, the following entities id’s were renamed:

ticketID -> tid, flightID -> fid, fidelityCardID -> fcid, reservationID -> rid.