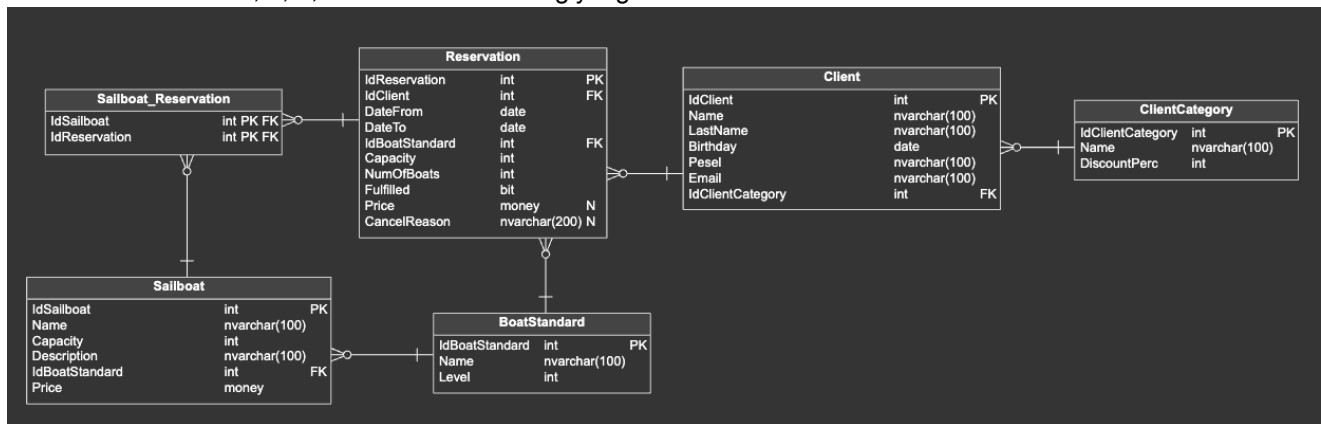


BoatStandard - we assume that the Level column contains information about the standard of a given boat. We can assume that values 1, 2, 3, ... indicate increasingly higher standards.



We are implementing two use cases.

1. Reading data about the customer and their reservations

1. Prepare an endpoint that allows us to retrieve the list of reservations assigned to a user based on the customer's id.
2. The API response should include all personal data about the customer along with the list of all reservations. The reservations should include all data from the Reservation table.
3. The list of reservations should be sorted in descending order by the reservation's DateTo.

2. Adding a new reservation

1. Another endpoint should allow us to make a reservation. The request should include: IdClient, DateFrom, DateTo, IdBoatStandard, NumOfBoats.
2. The reservation includes the client's identifier, the date range for which we want to reserve the boat(s). The IdBoatStandard field specifies the standard of the boat we want to reserve. The NumOfBoats field specifies the number of sailboats we want to rent.
3. Before making the reservation, we check if the client has another active reservation in the system. A client can have only one active reservation at a time. An active reservation is one that has not been accepted or rejected.
4. When making the reservation, we should check if we have the appropriate number of available sailboats.
5. If we lack sailboats of the appropriate standard, we can reserve a sailboat of a higher standard.
6. If we cannot fulfil the reservation, we return an error with an appropriate description. Additionally, we update the reservation in the database with the appropriate description in the CancelReason column.
7. Otherwise, we save the rented boats in the database. Additionally, we calculate the cost of fulfilling the reservation. During the calculations, we consider any promotions that may be assigned to the given client.
8. We update the price and the Fulfilled flag in the reservation table.
9. As a result, we return the identifier of the newly created reservation with the appropriate HTTP return code.

Additional Information:

- Use Entity Framework.
- You can use either Code First or Database First approach. The Database First approach is rated slightly lower - up to a score of 4.5.
- Remember the principles related to designing REST applications.
- Keep in mind good practices related to application architecture.

- Ensure that the application compiles.
- Remember to return appropriate HTTP codes and handle errors.
- The functionality of the application is the top priority, followed by code quality (separation of business logic, presentation, and infrastructure).