Yoga Admission Form (React, Django)
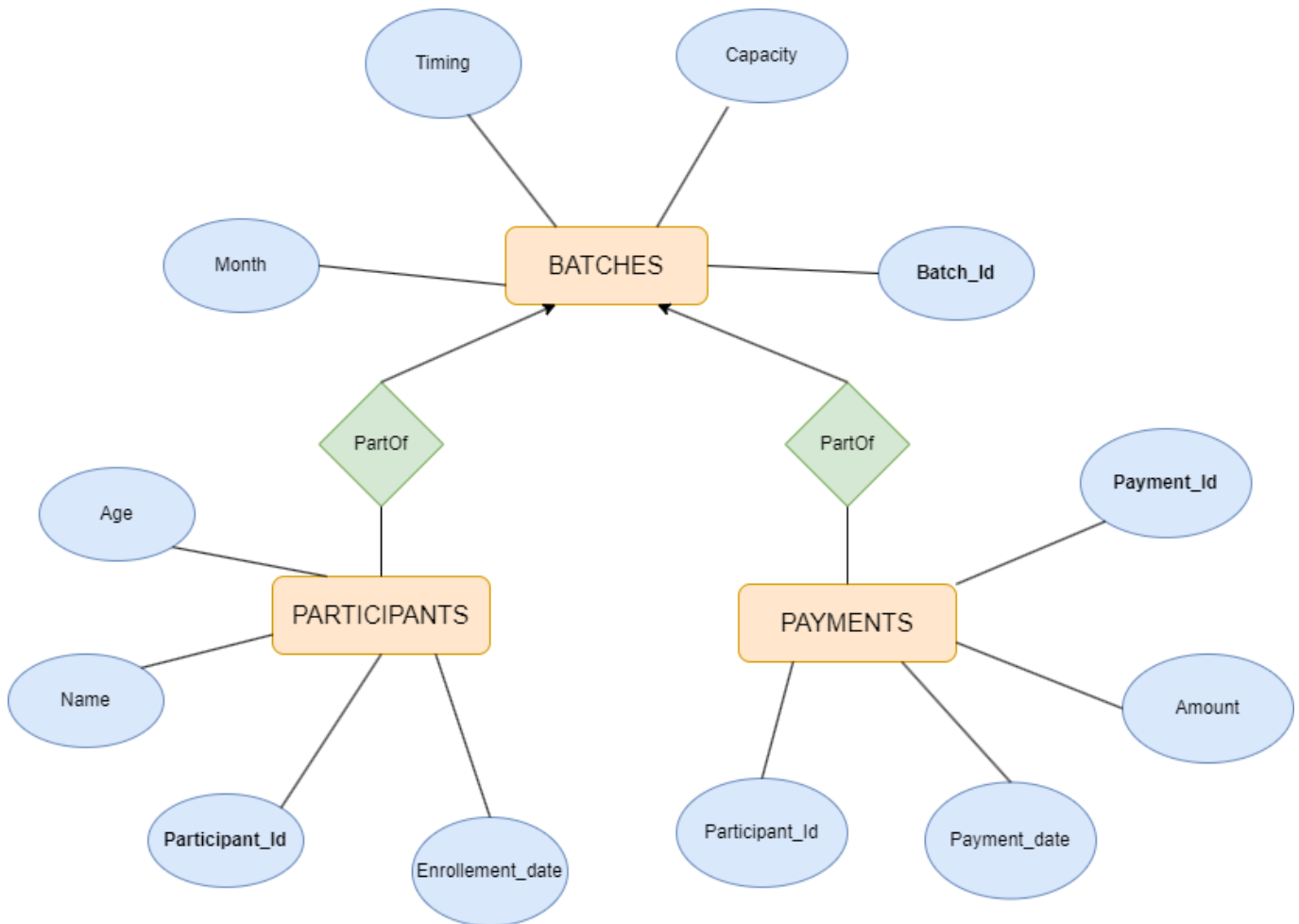
December 2023

1 ER Diagram

Figure 1: ER diagram

2 Transformation to Relational Schema

For each of the entities and relations in the above diagram we have the following relations :

1. Participants (**ParticipantId**, EnrollmentDate, Name, Age)

2. Batches (**BatchId**, Capacity, Timing, Month)

3. Payments (**PaymentId**, ParticipantId, PaymentDate, Amount)

3 Functional Dependencies

For each relation we have the following FDs:

- ParticipantId $\rightarrow$ EnrollmentDate, Name, Age

- BatchId $\rightarrow$ Capacity, Timing, Month

- PaymentId $\rightarrow$ ParticipantId, PaymentDate, Amount

These FDs are of the form X $\rightarrow$ Y where X is primary key and Y is the rest of attributes for each relation.

4 Implementation

The frontend of the form is made using Reactjs and the backend part is done using Django Rest framework. It uses default database of django (SQLlite). I have created a single table to store the data in the database. The fields are user name, email, age, and batch. The user inputs the data in the frontend and it validates if the data provided is correct or not. For ex, an email address can be used only once, a user cannot register himself mutiple times in different batches. I haven't added few features like exact cause of errors, invalid response handling.