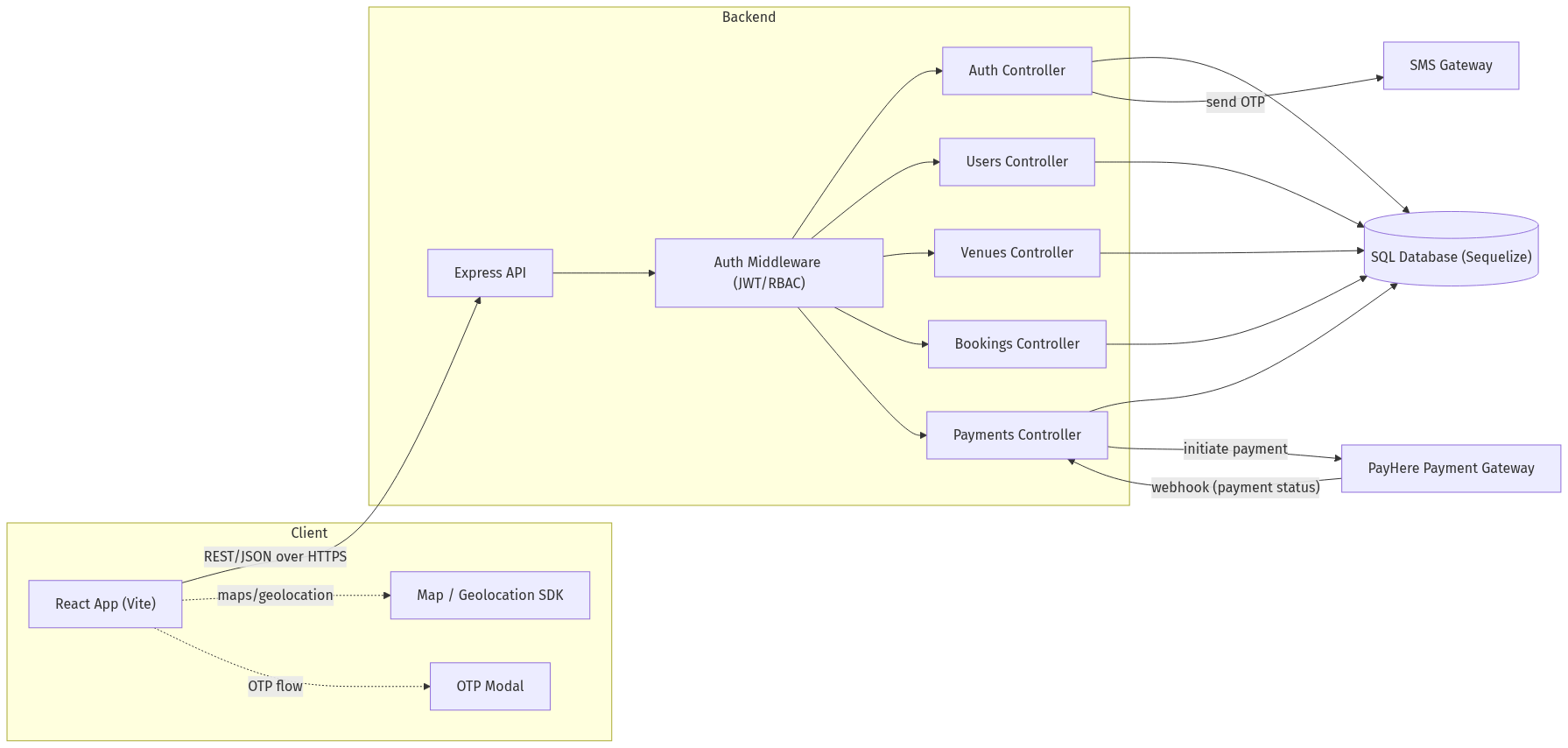
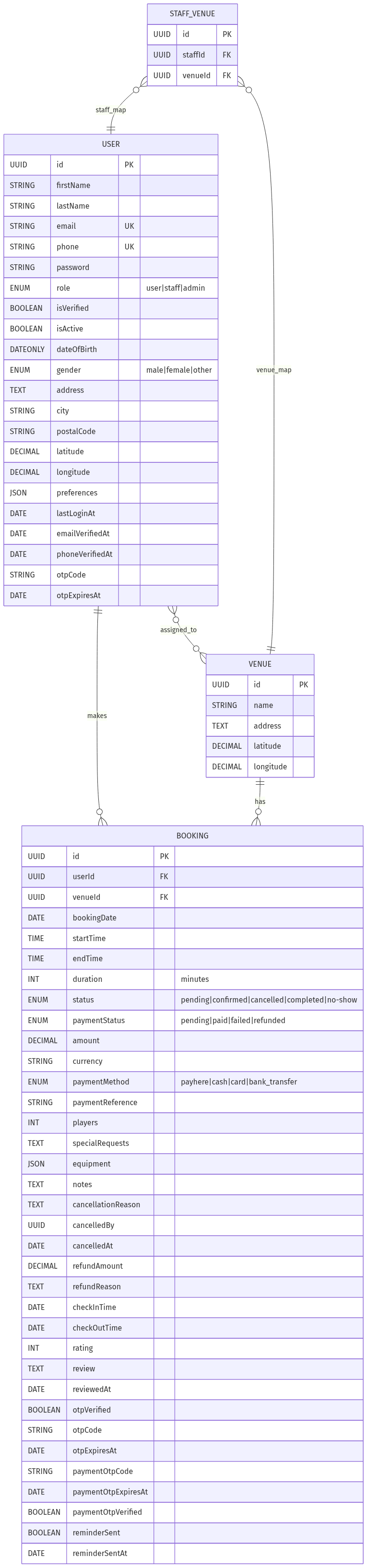
# 5.0 System Design

BookMyCourt.lk follows a layered web architecture: a React frontend (Vite) consumes a RESTful Express API with role-based auth (JWT/RBAC) and OTP flows. Data persists in a relational DB via Sequelize models (User, Venue, Booking, StaffVenue). Integrations include an SMS gateway for OTP and PayHere for payments/webhooks).

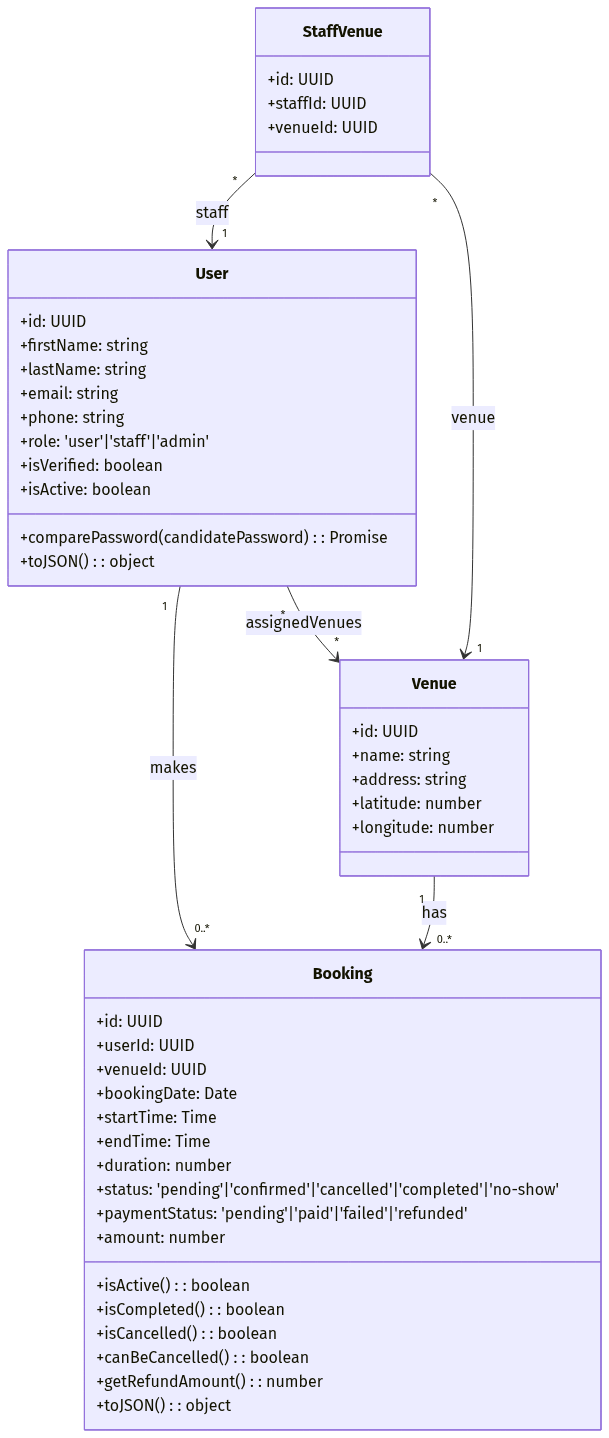
## 5.1 Architecture Diagram



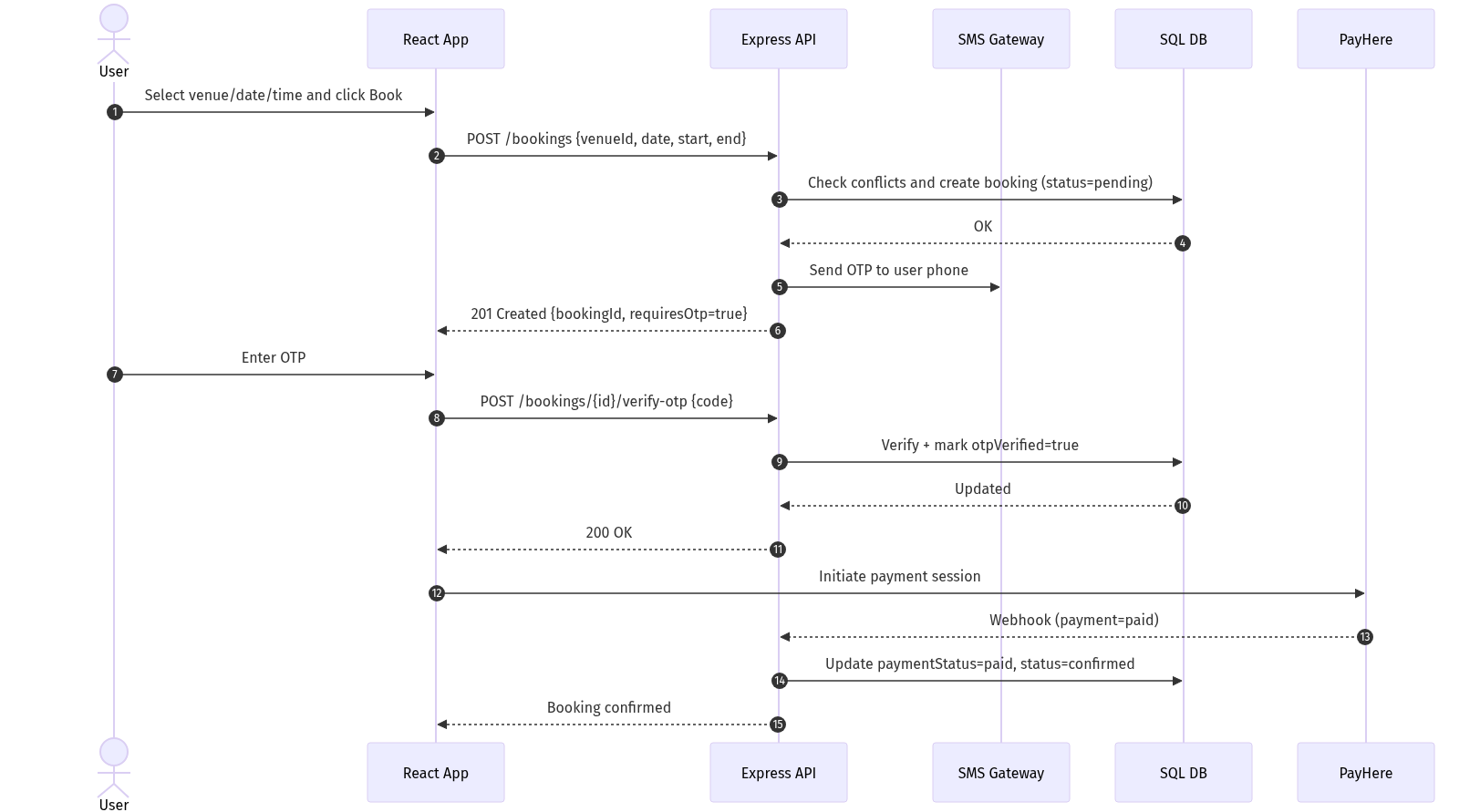
## 5.2 ER Diagram



## 5.3.1 UML Class Diagram



## 5.3.2 UML Sequence Diagram



## 5.4 Wireframe Diagram

(Rendering failed: 400 Client Error: Bad Request for url: https://mermaid.ink/svg/Zmxvd2NoYXJ0IFRECiAgc3ViZ3JhcGggVmVudWVEZXRhaWwKICAgIEhlYWRlcltIZWFkZXI6IExvZ28gfCBOYXZpZ2F0aW9uIHwgQXV0aF0KICAgIEhlcm9bVmVudWUgbmFtZSwgcmF0aW5nLCBsb2NhdGlvbl0KICAgIE1hcFtNYXAgKyBhZGRyZXNzXQogICAgU2xvdHNbRGF0ZSBwaWNrZXIgKyBUaW1lIHNsb3RzIGdyaWRdCiAgICBTdW1tYXJ5W0Jvb2tpbmcgc3VtbWFyeTsgUGxheWVyczsgUHJpY2U7IENvbmZpcm0gJiBQYXldCiAgICBSZXZpZXdzW1Jldmlld3MgbGlzdCArIEFkZCByZXZpZXddCiAgICBGb290ZXJbRm9vdGVyIGxpbmtzXQogIGVuZAoKICBIZWFkZXIgLS0-IEhlcm8gLS0-IE1hcCAtLT4gU2xvdHMgLS0-IFN1bW1hcnkgLS0-IFJldmlld3MgLS0-IEZvb3RlciA=)