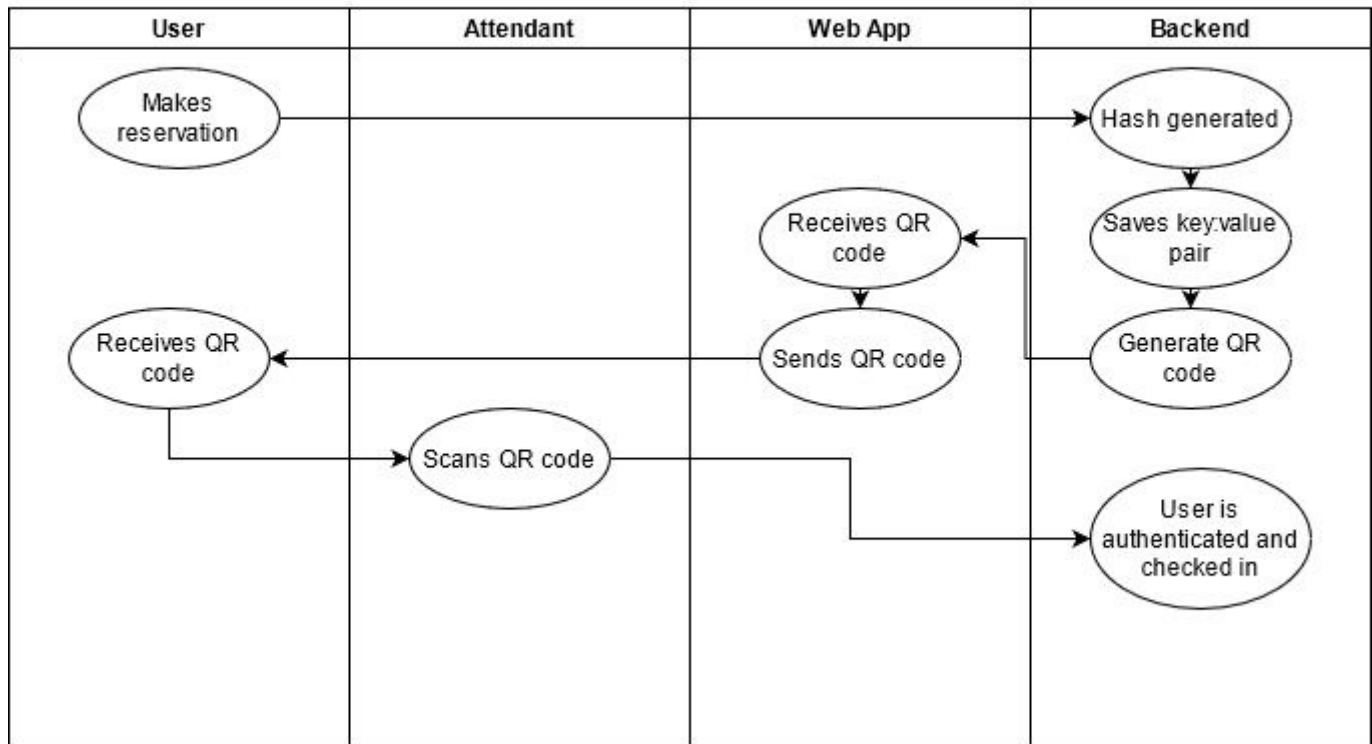


QR code generation and authentication



Name: QR code generation and authentication

Participating Actors: User, Attendant, Web App, Backend

Entry Condition: User makes reservation.

Exit Condition:

- User is checked into parking space.
- User cancels reservation.

Event Flow:

1. User makes reservation
 2. Backend generates hash from the account's username, and the hash of the parking space. (Each parking space is stored in a hash table, so each parking space will have a unique hash.)
 3. Backend stores a key:value pair. (Key = Hash. Values = User Account Object, and Parking Space Object.) in database.
 4. Backend sends QR code to User via the Web App.
 5. Attendant scans QR code.
 6. If QR code is valid, User is checked into parking spot.
 7. Web App sends Attendant parking space info.
 8. Attendant shows User to parking space.
1. If User cancels reservation before being checked in, the key:value pair is removed from the database, invalidating the QR code