

# Backend Engineer Onsite Project

## - II

At Belong, customers are encouraged to tour our homes before they apply to rent them. In light of the COVID-19 outbreak, we want to allow our customers to tour the homes on their own (self-tour). The goal of this project is to build a feature that would allow booking and managing tour requests.

### Booking Requirements

- A self-tour can be booked only if the home is allowed for self-touring. You can check that using our existing API [https://api-production.bln.hm/homes/{home\\_id}](https://api-production.bln.hm/homes/{home_id}). Refer to the `listingInfo.isSelfServeVisitsAllowed` flag to determine this.

```
{
  "basicInfo": { ... },
  "propertyInfo": { ... },
  "address": { ... },
  "rooms": [ ... ],
  "spaces": [ ... ],
  "features": [ ... ],
  "galleryMedia": [ ... ],
  "tourMedia": [ ... ],
  "owner": { ... },
  "inspectedBy": { ... },
  "listingInfo": {
    "rentAmount": 5000,
    "depositAmount": 5000,
    "petInfo": { ... }, // 2 items
    "leaseMonths": 12,
    "isDemoUnit": false,
    "isAvailableForRent": true,
    "availableOn": "2020-02-09T00:00:00",
    "isSelfServeVisitsAllowed": true,
    "isOpenHouseAllowed": false
  },
  "propertyScores": [ ... ], // 2 items
  "matterportId": "yXQe1p6wVDs",
}
```

- Tours can be booked in half-hour blocks, between 10 am to 5 pm on weekdays. Self-tours aren't allowed on weekends.

- Tours cannot be booked for the same day, or for the next day if the booking is being made after 9 pm.
- No two people can book the same time slot, and each time slot will also include a half-hour buffer afterward. So, for example, if I book 3 pm, no one will be able to book 3:30 pm.
- Booked tours can be rescheduled or canceled by the user until the tour start time.

## **Your goal is to build APIs that**

- Return the available slots for the next 3 days for a given home ID
- Allow booking a tour from an available slot
- Allow canceling/rescheduling a tour
- Return the following tour stats for a given home ID
  - Number of booked tours
  - Number of canceled tours
  - Number of rescheduled tours

## **Home IDs for testing**

1. 90722ff2689fcd10
2. 1d02daaa079fafb4
3. f465b79b0ffa88e0
4. 1438e62a007823b4
5. 690cb0b3a214ca55
6. fa0a48ee08f78d99