







Protocol Specification

Broker to Hotel

1. When the hotel sends a request for a booking:
 - It must be a single line, terminated by `\r\n`.
 - The line must start with "BOOK" followed by a space.
 - The remainder of the line consists of fields and values.
 - The field-value pairs are separated by commas. There must be NO SPACES between each pair.
 - The field and value is separated by a "=".
 - The value is enclosed with single quotes.
 - Values may consist of words separated with spaces.
 - The fields do not have any order.
 - All the fields listed below are mandatory (they must have values as well):
 - guest_name
 - checkin_date
 - checkout_date
 - phone
 - email
 - credit_card
 - Both date fields must have values in the following format: dd-mm-yyyy
 - They are separated by dashes
 - In the case of single digits they are padded with a 0
 - Both mm and dd start with 01.

2. When the hotel sends a request for a vacancy:
 - It must be a single line, terminated by `\r\n`.
 - The line must start with "VACANCY" followed by a space.
 - The remainder of the line consists of fields and values.
 - The field-value pairs are separated by commas. There must be NO SPACES between each pair.
 - The field and value is separated by a "=".
 - The value is enclosed with single quotes.
 - Values may consist of words separated with spaces.
 - The fields do not have any order.
 - All the fields listed below are mandatory (they must have values as well):
 - checkin_date
 - checkout_date
 - Both date fields must have values in the following format: dd-mm-yyyy
 - They are separated by dashes
 - In the case of single digits they are padded with a 0
 - Both mm and dd start with 01.

e.g. `BOOK guest_name='john doe',checkin_date='01-07-2016',checkout_date='13-07-2016',phone='1234567890',email='jnn@nn.com',credit_card='1234567890'\r\n`

e.g. `VACANCY checkin_date='08-07-2016',checkout_date='08-07-2016'\r\n`

Hotel to Broker

The communication specified are responses to Broker requests.

All responses have the following format:

<Response Type> <Outcome>

Response Type: VACANCY, BOOK

Outcome: SUCCESS, FAIL, ERROR

The response must conform to the following rules:

- The response must be a single line, terminated by `\r\n`.
- The keywords must be separated by a space.
- The order of the fields is important and all fields are mandatory.

There is one special response, in the case of the hotel server receiving an unrecognized request:

ERROR <optional description>

e.g.

`VACANCY SUCCESS\r\n`

`BOOK FAIL\r\n`

`ERROR unrecognized protocol\r\n`

`BOOK ERROR\r\n`

Client to Broker

1. GET requests

These are requests for information from the broker itself.

There are only two types of GET requests:

- GET city=<city name>
Asks for all the hotels residing in the specified city.
- GET city=ANY
Asks for all the hotels serviced by the broker, regardless of location.

The request must conform to the following rules:

- The response must be a single line, terminated by `\r\n`.
- The keywords must be separated by a space.
- The field and value is separated by `"="`.

2. SEND requests

These are requests which need to be forwarded to a specific hotel.

a. When the hotel sends a request for a booking:

- It must be a single line, terminated by `\r\n`.
- The line must start with `"SEND BOOKING"` followed by a space.
- The remainder of the line consists of fields and values.
- The field-value pairs are separated by commas. There must be NO SPACES between each pair.
- The field and value is separated by a `"="`.
- The value is NOT enclosed with single quotes, unlike the protocol between broker and hotel.
- Values may consist of words separated with spaces.
- The fields do not have any order.
- All the fields listed below are mandatory (they must have values as well):
 - guest_name
 - checkin_day
 - checkin_month
 - checkin_year
 - checkout_month
 - checkout_year
 - checkout_day
 - phone
 - email
 - credit_card
 - hotel_name
- Both day and month values for the checkin/checkout day must:
 - In the case of single digits, be padded with a 0

- Start from 01
- The year value must be four characters long

e.g. `SEND BOOKING guest_name=j
nan,checkin_day=08,checkin_month=07,checkin_year=2016,checkout_day=09,check
out_month=07,checkin_year=2016,phone=1234567789,credit_card=12345677890,ema
il=me@u.com,hotel=Holiday Inn\r\n`

b. When the hotel sends a request for a vacancy:

- It must be a single line, terminated by `\r\n`.
- The line must start with "SEND VACANCY" followed by a space.
- The remainder of the line consists of fields and values.
- The field-value pairs are separated by commas. There must be NO SPACES between each pair.
- The field and value is separated by a "=".
- The value is NOT enclosed with single quotes, unlike the protocol between broker and hotel.
- Values may consist of words separated with spaces.
- The fields do not have any order.
- All the fields listed below are mandatory (they must have values as well):
 - checkin_day
 - checkin_month
 - checkin_year
 - checkout_month
 - checkout_year
 - checkout_day
 - hotel_name
- Both day and month values for the checkin/checkout day must:
 - In the case of single digits, be padded with a 0
 - Start from 01
- The year value must be four characters long

e.g. `SEND VACANCY
checkin_day=08,checkin_month=07,checkin_year=2016,checkout_day=09,checkout_
month=07,checkin_year=2016,hotel=Holiday Inn\r\n`

Broker to Client

The broker responds to all client requests (upon processing) with one of these three responses:

- `SUCCESS\r\n`
- `FAIL\r\n`
- `ERROR\r\n`