BACKEND API DOCUMENTATION – SPRINT 4

Backend Developers:

1. Ahamad Shaik
2. Manish Alluri

Backend Execution:

1. Clone the **Booking-Website** repository from the github link provided.
2. Make sure the terminal used for execution has gcc compiler.
3. Go to the path: projectCLonedFolder/Booking-Website/src
4. Execute the command: go run main.go
5. Use the development urls provided for each API along with the sample requests to get the response from each API using postman.

API List and Details:

Search Airport API:

- **Functionality:** Source or destination API search for front end drop down in source and destination text fields.
- **Calling Conditions:**
    1. When the customer clicks on the text field of source/destination, API is called to return all the airport information available in the database.
    2. When the customer enters the first 3 characters of the airport name or city name or the 3 characters of the unique airport code, API is called after allowing the customer to enter data for a span of 3 seconds. In this case the API returns the airport details that match the text field entry.
- **Development URI:** http://localhost:8080/booking/SrchArptAPI
  - **Input fields:**
      1. **ArptSrchString**
          a. datatype: String of maximum length 3 characters.
          b. Mandatory field status: mandatory field in the input request.
          c. Mandatory field value: Not mandatory as API is called with null data.
  - **Output fields:** The output is an array of jsons with each json having the following fields.
      1. **cityName**
          a. datatype: String value
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: Mandatory value
      2. **airportCode**
          a. datatype: String value
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: Mandatory value of 3-character length
      3. **airportName**

a. datatype: String value
b. Mandatory field status: Mandatory field in the response
c. Mandatory field value: Mandatory value

4. **countryName**
   a. datatype: String value
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value (Always USA)

- **Sample Request Format:**

```
{
        "ArptSrchString":"MIA"
}
```

- **Sample response Format:**

```
[
        {
                "cityName": "MIAMI",
                "airportCode": "MIA",
                "airportName": "MIAMI INTERNATIONAL AIRPORT",
                "countryName": "USA"
        }
]
```

Search Flights API:

- **Functionality:** Return flight options for the selected source and destination locations with selected criteria.
- **Calling Conditions:**
  1. When customer clicks on the search button after selecting source and destination locations, start data, end date and round-trip Boolean, the API returns available flight options.
  2. After initial display of flight options, a side menu bar with filters is displayed to the customer. After selecting available filters, when customer clicks on the apply filters button, the API is recalled and filtered data from database is returned.
- **Development URI:** http://localhost:8080/booking/searchFlights
- **Input fields:**
  1. **sourceName**
     a. datatype: String of length 3 characters.
     b. Mandatory field status: mandatory field in the input request.
     c. Mandatory field value: mandatory value with airport code.

2. **destinationName**
   a. datatype: String of maximum length 3 characters.
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: mandatory value with airport code.
3. **startDate**
   a. datatype: String.
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: mandatory value.
4. **endDate**
   a. datatype: String.
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: mandatory value.
5. **isRoundTrip**
   a. datatype: Boolean.
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: value is (T/F).
6. **AirlineFilter**
   a. datatype: String.
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: Not mandatory.
7. **ArrivalTimeFilter**
   a. datatype: String
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: Not mandatory (ascending or descending order).
8. **DepartureTimeFilter**
   a. datatype: String
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: Not mandatory (ascending or descending order).
9. **PriceRangeFilter**
   a. datatype: String
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: Not mandatory (ascending or descending order).
10. **JourneyTimeFilter**
    a. datatype: String
    b. Mandatory field status: mandatory field in the input request.
    c. Mandatory field value: Not mandatory (ascending or descending order).
11. **MaxDurationLimit**
    a. datatype: String
    b. Mandatory field status: mandatory field in the input request.
    c. Mandatory field value: Not mandatory (ascending or descending order).

- **Output fields:** The output is an array of jsons with each json having the following fields.

1. **id**
   a. datatype: String
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value (unique)
2. **departureTime**
   a. datatype: String
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value
3. **arrivalTime**
   a. datatype: String
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value
4. **sourceAirport**
   a. datatype: String
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value (3-character code)
5. **destinationAirport**
   a. datatype: String
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value (3-character code)
6. **price**
   a. datatype: numeric
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value
7. **duration**
   a. datatype: numeric
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value
8. **flightName**
   a. datatype: String value
   b. Mandatory field status: Mandatory field in the response
   c. Mandatory field value: Mandatory value
9. **flightNumber**
   a. datatype: String value
   b. Mandatory field status: mandatory field in the response
   c. Mandatory field value: Mandatory value
10. **sourceAirportCode**
    a. datatype: String value
    b. Mandatory field status: mandatory field in the response
    c. Mandatory field value: Mandatory value
11. **destinationAirportCode**
    a. datatype: String value
    b. Mandatory field status: mandatory field in the response
    c. Mandatory field value: Mandatory value

12. sourceCity
   a. datatype: String value
   b. Mandatory field status: mandatory field in the response
   c. Mandatory field value: Mandatory value

13. destinationCity
   a. datatype: String value
   b. Mandatory field status: mandatory field in the response
   c. Mandatory field value: Mandatory value

- **Sample Request Format:**

```
{
        "sourceName": "Orlando",
        "destinationName": "Miami",
        "startDate":"2022-02-05",
        "endDate":"",
        "isRoundTrip":"F",
        "airlineFilter":"",
        "arrivalTimeFilter":"",
        "departureTimeFilter":"",
        "priceRangeFilter":"",
        "journeyTimeFilter":"",
        "MaxDurationLimit":""
}
```

- **Sample response Format:**

```
[
  {
     "flightnumber": "AA2210",
     "flightName":" American Airlines",
     "departureTime": "2022-04-05T22:00:00Z",
     "arrivalTime": "2022-04-05T22:00:00Z ",
      "sourceAirport": "Orlando International Airport",
       "destinationAirport": "Miami International Airport",
      "sourceAirportCode": "MCO",
      "destinationAirportCode": "MIA",
      "destinationAirport": "Miami",
      "sourceCity": "Orlando",
      "destinationCity": "Miami",
```

```
            "price": "$220",
            "duration": "2:30 hrs",
            "id": "AA"
        }
    ]
```

Search Round trip Flights API:

- **Functionality:** Return flight options for the selected source and destination locations with selected criteria.
- **Calling Conditions:**
  1. When customer clicks on the search button after selecting source and destination locations, start data, end date and round-trip is set as true, the API returns available flight options.
  2. After initial display of flight options, a side menu bar with filters is displayed to the customer. After selecting available filters, when customer clicks on the apply filters button, the API is recalled and filtered data from database is returned.
- **Development URI:** http://localhost:8080/booking/searchRTFlights
- **Input fields:**
  1. **sourceName**
     d. datatype: String of length 3 characters.
     e. Mandatory field status: mandatory field in the input request.
     f. Mandatory field value: mandatory value with airport code.
  2. **destinationName**
     d. datatype: String of maximum length 3 characters.
     e. Mandatory field status: mandatory field in the input request.
     f. Mandatory field value: mandatory value with airport code.
  3. **startDate**
     d. datatype: String.
     e. Mandatory field status: mandatory field in the input request.
     f. Mandatory field value: mandatory value.
  4. **endDate**
     d. datatype: String.
     e. Mandatory field status: mandatory field in the input request.
     f. Mandatory field value: mandatory value.
  5. **isRoundTrip**
     d. datatype: Boolean.
     e. Mandatory field status: mandatory field in the input request.
     f. Mandatory field value: value is T.
  6. **AirlineFilter**
     d. datatype: String.
     e. Mandatory field status: mandatory field in the input request.

f. Mandatory field value: Not mandatory.

7. ArrivalTimeFilter
d. datatype: String
e. Mandatory field status: mandatory field in the input request.
f. Mandatory field value: Not mandatory (ascending or descending order).

8. DepartureTimeFilter
d. datatype: String
e. Mandatory field status: mandatory field in the input request.
f. Mandatory field value: Not mandatory (ascending or descending order).

9. PriceRangeFilter
d. datatype: String
e. Mandatory field status: mandatory field in the input request.
f. Mandatory field value: Not mandatory (ascending or descending order).

10. JourneyTimeFilter
d. datatype: String
e. Mandatory field status: mandatory field in the input request.
f. Mandatory field value: Not mandatory (ascending or descending order).

11. MaxDurationLimit
d. datatype: String
e. Mandatory field status: mandatory field in the input request.
f. Mandatory field value: Not mandatory (ascending or descending order).

- **Output fields:** The output is an array of jsons with each json having the following fields.

1. id
d. datatype: String
e. Mandatory field status: Mandatory field in the response
f. Mandatory field value: Mandatory value (unique)

2. departureTime
d. datatype: String
e. Mandatory field status: Mandatory field in the response
f. Mandatory field value: Mandatory value

3. arrivalTime
d. datatype: String
e. Mandatory field status: Mandatory field in the response
f. Mandatory field value: Mandatory value

4. sourceAirport
d. datatype: String
e. Mandatory field status: Mandatory field in the response
f. Mandatory field value: Mandatory value (3-character code)

5. destinationAirport
d. datatype: String
e. Mandatory field status: Mandatory field in the response

  f. Mandatory field value: Mandatory value (3-character code)

6. **price**
  d. datatype: numeric
  e. Mandatory field status: Mandatory field in the response
  f. Mandatory field value: Mandatory value

7. **duration**
  d. datatype: numeric
  e. Mandatory field status: Mandatory field in the response
  f. Mandatory field value: Mandatory value

8. **flightName**
  d. datatype: String value
  e. Mandatory field status: Mandatory field in the response
  f. Mandatory field value: Mandatory value

9. **flightNumber**
  d. datatype: String value
  e. Mandatory field status: mandatory field in the response
  f. Mandatory field value: Mandatory value

10. **sourceAirportCode**
  d. datatype: String value
  e. Mandatory field status: mandatory field in the response
  f. Mandatory field value: Mandatory value

11. **destinationAirportCode**
  d. datatype: String value
  e. Mandatory field status: mandatory field in the response
  f. Mandatory field value: Mandatory value

12. **sourceCity**
  d. datatype: String value
  e. Mandatory field status: mandatory field in the response
  f. Mandatory field value: Mandatory value

13. **destinationCity**
  d. datatype: String value
  e. Mandatory field status: mandatory field in the response
  f. Mandatory field value: Mandatory value

14. **reId**
  g. datatype: String
  h. Mandatory field status: Mandatory field in the response
  i. Mandatory field value: Mandatory value (unique)

15. **reDepartureTime**
  g. datatype: String
  h. Mandatory field status: Mandatory field in the response
  i. Mandatory field value: Mandatory value

16. **reArrivalTime**
  g. datatype: String
  h. Mandatory field status: Mandatory field in the response

     i.   Mandatory field value: Mandatory value

17. reSourceAirport

    g.   datatype: String

    h.   Mandatory field status: Mandatory field in the response

    i.   Mandatory field value: Mandatory value (3-character code)

18. reDestinationAirport

    g.   datatype: String

    h.   Mandatory field status: Mandatory field in the response

    i.   Mandatory field value: Mandatory value (3-character code)

19. rePrice

    g.   datatype: numeric

    h.   Mandatory field status: Mandatory field in the response

    i.   Mandatory field value: Mandatory value

20. reDuration

    g.   datatype: numeric

    h.   Mandatory field status: Mandatory field in the response

    i.   Mandatory field value: Mandatory value

21. reFlightName

    g.   datatype: String value

    h.   Mandatory field status: Mandatory field in the response

    i.   Mandatory field value: Mandatory value

22. **reFlightNumber**

    g.   datatype: String value

    h.   Mandatory field status: mandatory field in the response

    i.   Mandatory field value: Mandatory value

23. reSourceAirportCode

    g.   datatype: String value

    h.   Mandatory field status: mandatory field in the response

    i.   Mandatory field value: Mandatory value

24. reDestinationAirportCode

    g.   datatype: String value

    h.   Mandatory field status: mandatory field in the response

    i.   Mandatory field value: Mandatory value

25. reSourceCity

    g.   datatype: String value

    h.   Mandatory field status: mandatory field in the response

    i.   Mandatory field value: Mandatory value

26. reDestinationCity

    g.   datatype: String value

    h.   Mandatory field status: mandatory field in the response

    i.   Mandatory field value: Mandatory value

- **Sample Request Format:**

```
{
        "sourceName": "LAX",
        "destinationName": "SAN",
        "startDate":"2022-04-05",
        "endDate":"2022-04-25",
        "isRoundTrip":"T",
        "airlineFilter":"",
        "arrivalTimeFilter":"",
        "departureTimeFilter":"",
        "priceRangeFilter":"",
        "journeyTimeFilter":"",
        "MaxDurationLimit":""
}
```

- **Sample response Format:**

```
[
  {
     "flightNumber": "AA105",
     "reFlightNumber": "UA3320",
     "flightName": "American Airlines",
     "reFlightName": "American Airlines",
     "departureTime": "2022-04-05T08:00:00Z",
     "reDepartureTime": "2022-04-25T01:00:00Z",
     "arrivalTime": "2022-04-05T11:15:00Z",
     "reArrivalTime": "2022-04-25T06:30:00Z",
     "sourceAirport": "LOS ANGELES INTERNATIONAL AIRPORT",
     "reSourceAirport": "SAN DIEGO INTERNATIONAL AIRPORT",
     "sourceAirportCode": "LAX",
     "reSourceAirportCode": "SAN",
     "destinationAirportCode": "SAN",
     "reDestinationAirportCode": "LAX",
     "destinationAirport": "SAN DIEGO INTERNATIONAL AIRPORT",
     "reDestinationAirport": "LOS ANGELES INTERNATIONAL AIRPORT",
     "price": 260,
     "rePrice": 149,
     "duration": 195,
     "reDuration": 360,
     "id": "002",
```

```
            "reId": "003",
            "sourceCity": "LOS ANGELES",
            "reSourceCity": "SAN DIEGO",
            "destinationCity": "SAN DIEGO",
            "reDestinationCity": "LOS ANGELES"
        }
    ]
```

Flight Details API:

- **Functionality:** Returns the detailed flight information when a particular flight option is selected.
- **Calling Conditions:**
    1. When the customer clicks on select flight button after entering selecting any on the flight options provided by the search API, this API is triggered with the unique id of the flight option as a input field.
    2. Using this unique ID, further details of this flight journey are extracted from database and returned to the front end.
- **Development URI:** http://localhost:8080/booking/flightDetails
  - **Input fields:**
    1. **ID**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value (unique ID of the flight option)
    2. **StartDate**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value (travel date)

  - **Output fields:** The output is a json having the following fields.
    1. **id**
       j. datatype: String
       k. Mandatory field status: Mandatory field in the response
       l. Mandatory field value: Mandatory value (unique)
    2. **departureTime**
       j. datatype: String
       k. Mandatory field status: Mandatory field in the response
       l. Mandatory field value: Mandatory value
    3. **arrivalTime**
       j. datatype: String
       k. Mandatory field status: Mandatory field in the response
       l. Mandatory field value: Mandatory value

4. **sourceAirport**
   j. datatype: String
   k. Mandatory field status: Mandatory field in the response
   l. Mandatory field value: Mandatory value (3-character code)
5. **destinationAirport**
   j. datatype: String
   k. Mandatory field status: Mandatory field in the response
   l. Mandatory field value: Mandatory value (3-character code)
6. **price**
   j. datatype: numeric
   k. Mandatory field status: Mandatory field in the response
   l. Mandatory field value: Mandatory value
7. **duration**
   j. datatype: numeric
   k. Mandatory field status: Mandatory field in the response
   l. Mandatory field value: Mandatory value
8. **flightName**
   j. datatype: String value
   k. Mandatory field status: Mandatory field in the response
   l. Mandatory field value: Mandatory value
9. **flightNumber**
   j. datatype: String value
   k. Mandatory field status: mandatory field in the response
   l. Mandatory field value: Mandatory value
10. **sourceAirportCode**
    j. datatype: String value
    k. Mandatory field status: mandatory field in the response
    l. Mandatory field value: Mandatory value
11. **destinationAirportCode**
    j. datatype: String value
    k. Mandatory field status: mandatory field in the response
    l. Mandatory field value: Mandatory value
12. **sourceCity**
    j. datatype: String value
    k. Mandatory field status: mandatory field in the response
    l. Mandatory field value: Mandatory value
13. **destinationCity**
    j. datatype: String value
    k. Mandatory field status: mandatory field in the response
    l. Mandatory field value: Mandatory value
14. **boardingTime**
    a. datatype: String value
    b. Mandatory field status: mandatory field in the response
    c. Mandatory field value: Mandatory value

- **Sample Request Format:**

```
{
  "ID":"001",
  "StarteDate":"2022-05-05"
}
```

- **Sample response Format:**

```
{
  "flightnumber": "AA2210",
  "flightName":" American Airlines",
  "departureTime": "2022-04-05T22:00:00Z ",
  "arrivalTime": "2022-04-06T00:01:30Z ",
  "sourceAirport": "Orlando International Airport",
  "destinationAirport": "Miami International Airport",
  "sourceAirportCode": "MCO",
  "destinationAirportCode": "MIA",
  "destinationAirport": "Miami",
  "sourceCity": "Orlando",
  "destinationCity": "Miami",
  "price": "$220",
  "duration": "2:30 hrs",
  "id": "AA",
  "BoardingTime": "2022-05-04T22:"
}
```

Price Details API:

- **Functionality:** Returns various price options if available for the selected flight journey.
- **Calling Conditions:**
  1. When the customer clicks on continue after reviewing the flight details displayed for a particular journey plan, this API is triggered.
  2. The unique ID representing this flight option is taken as an input for this API and returns the prices available as standard and flexible prices.
- **Development URI:** http://localhost:8080/booking/price
- **Input fields:**
  1. **ID**
     a. datatype: String

b. Mandatory field status: mandatory field in the input request.
c. Mandatory field value: Unique and mandatory

- **Output fields:** The output is a json having the following fields.
    1. **standardPrice**
        a. datatype: numeric
        b. Mandatory field status: Mandatory field in the response
        c. Mandatory field value: not mandatory and if present value is numeric

    2. **flexiblePrice**
        a. datatype: numeric
        b. Mandatory field status: Mandatory field in the response
        c. Mandatory field value: not mandatory and if present value is numeric

- **Sample Request Format:**

```
{
    "ID":"AA"
}
```

- **Sample response Format:**

```
{
    "standardPrice": "$250",
    "flexiblePrice": "$200"
}
```

Payment API:

- **Functionality:** Returns the payment status, and otp code by triggering an email API used for authenticating customer. The OTP is used at front end for authorization.
- **Calling Conditions:**
    1. When the customer clicks on checkout button after entering the required information needed for payment, this API is triggered.
    2. This API triggers email API with the email type as FOTP.
    3. This returns the payment status representing the status of the mail sent to the customer, OTP if mail is successfully sent to authenticate at the front end and an error code in case of any errors.
    4. Few predefined errors will be provided at the end of document.
- **Development URI:** http://localhost:8080/booking/payment
- **Input fields:**
    1. **CustomerName**
        a. datatype: String

b. Mandatory field status: mandatory field in the input request.

c. Mandatory field value: mandatory value

2. MobileNumber

a. datatype: String

b. Mandatory field status: mandatory field in the input request.

c. Mandatory field value: mandatory value

3. EmailAdd

a. datatype: String

b. Mandatory field status: mandatory field in the input request.

c. Mandatory field value: mandatory value.

- **Output fields:** The output is a json having the following fields.

1. status

a. datatype: String

b. Mandatory field status: Mandatory field in the response

c. Mandatory field value: mandatory value (SUCCESS/FAILED)

2. otpCode

a. datatype: String

b. Mandatory field status: Mandatory field in the response

c. Mandatory field value: not mandatory, given only if status is SUCCESS.

3. errorCode

a. datatype: String

b. Mandatory field status: Mandatory field in the response

c. Mandatory field value: null if status is SUCCESS else returns error code.

- **Sample Request Format:**

```
{
   "CustomerName":"xxxxxxx xxxxx",
   "MobileNumber":"xxxxxxxxxx",
   "EmailAdd":"xxxxxxxxxx@gmail.com",
}
```

- **Sample response Format:**

```
{
   "status": "SUCCESS",
   "otpCode": "160901",
   "errorCode": ""
}
```

Email API:

- **Functionality:** Returns the email status, and otp code after triggered by payment API. The OTP is used at front end for authorization and also to send a confirmation mail.
- **Calling Conditions:**
    1. When the customer clicks on checkout button after entering the required information needed for payment, payment API is triggered which internally calls this API with the provided email as input.
    2. This API send as email to the customer email with a predefined subject line and mail body depending on the type of email along with a newly generated unique OTP. This same OTP is returned in response if email is sent successfully.
    3. The MailType – FOTP/HOTP is used to generate an otp during the payment authentication in the booking of flights and hotels respectively.
    4. The MailType – FCONF/HCONF is used to send a confirmation mail to the customer with the booking details of flights and hotels respectively.
    5. If the process fails and email is not delivered, it returns the status with appropriate error code.
- **Development URI:** http://localhost:8080/booking/email
- **Input fields:**
    1. **EmailAdd**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value
    2. **CustomerName**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value
    3. **MailType**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value (FOTP, HOTP, FCONF, HCONF)
    4. **Source**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value when mailtype is FCONF
    5. **Destination**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value as destination in case of FCONF, Value is Hotel Name incase of HCONF
    6. **BookingCity**

    a. datatype: String

    b. Mandatory field status: mandatory field in the input request.

    c. Mandatory field value: mandatory value as hotel city in case of HCONF

7. **DateOfBooking**

    a. datatype: String

    b. Mandatory field status: mandatory field in the input request.

    c. Mandatory field value: mandatory value (Travel/hotel booking date/s in FCONF and HCONF)

8. **ReferenceNumber**

    a. datatype: String

    b. Mandatory field status: mandatory field in the input request.

    c. Mandatory field value: mandatory value (in case of FCONF, HCONF)

- **Output fields:** The output is a json having the following fields.

1. **emailStatus**

    a. datatype: String

    b. Mandatory field status: Mandatory field in the response

    c. Mandatory field value: mandatory value (SUCCESS/FAILED)

2. **otpCode**

    a. datatype: String

    b. Mandatory field status: Mandatory field in the response

    c. Mandatory field value: not mandatory, given only if status is SUCCESS for only the type 'OTP'. For Confirmation it is blank.

3. **errorCode**

    a. datatype: String

    b. Mandatory field status: Mandatory field in the response

    c. Mandatory field value: null if status is SUCCESS else returns error code.

- **Sample Request Format:**

```
{
"EmailAdd":"ahamadshaik333@gmail.com",
"CustomerName":"Ahamad Shaik",
"MailType":"FCONF",
"Source":"Miami",
"Destination":"Orlando",
"BookingCity":"",
"DateOfBooking":"3/24/2022-3/30/2022",
"ReferenceNumber":"123456789"
}
```

- **Sample response Format:**

```
{
  "otpCode": "",
  "emailStatus": "success",
  "errorCode": ""
}
```

Flight Booking Confirmation API:

- **Functionality:** This API sends a confirmation mail to the customer after the otp code is validated successfully at the front end. It stores the flight booking information of the customer at the backend database and returns the email, data storage status and also error code in case of any.
- **Calling Conditions:**
    1. When the customer enters the OTP code in the popup and front end validates the code, this API is triggered whn the code is successfully validated.
    2. The information regarding the hotel booking is passed in the required fields.
    3. This API also triggers the email API with MailType as FCONF.
    4. The response is the json with below response fields.
- **Development URI:** http://localhost:8080/booking/flightConfirm
    - **Input fields:**
        1. **CodeStatus**
            a. datatype: String
            b. Mandatory field status: mandatory field in the input request.
            c. Mandatory field value: mandatory value (Success)
        2. **BookingDates**
            a. datatype: String
            b. Mandatory field status: mandatory field in the input request.
            c. Mandatory field value: mandatory value
        3. **CustomerName**
            a. datatype: String
            b. Mandatory field status: mandatory field in the input request.
            c. Mandatory field value: mandatory value
        4. **EmailAdd**
            a. datatype: String
            b. Mandatory field status: mandatory field in the input request.
            c. Mandatory field value: mandatory value
        5. **MobileNumber**
            a. datatype: String
            b. Mandatory field status: mandatory field in the input request.
            c. Mandatory field value: mandatory value

6. **Source**
   a. datatype: String
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: mandatory value
7. **Destination**
   a. datatype: String
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: mandatory value
8. **ID**
   a. datatype: String
   b. Mandatory field status: mandatory field in the input request.
   c. Mandatory field value: mandatory value (Unique id of the hotel)

- **Output fields:** The output is a json having the following fields.
   1. **emailStatus**
      a. datatype: String
      b. Mandatory field status: Mandatory field in the response
      c. Mandatory field value: mandatory value (success/failure)

   2. **apiStatus**
      a. datatype: String
      b. Mandatory field status: Mandatory field in the response
      c. Mandatory field value: mandatory value (success/failure)

   3. **errorCode**
      a. datatype: String
      b. Mandatory field status: Mandatory field in the response
      c. Mandatory field value: null if status is success else returns error code.

- **Sample Request Format:**
```
{
    "CodeStatus":"Success",
    "BookingDates":"3/28/2022 - 3/31/2022",
    "CustomerName":"Ahamad Shaik",
    "EmailAdd":"ahamadshaik333@gmail.com",
    "MobileNumber":"3527093318",
    "Source":"Gainesville",
    "Destination":"Orlando",
    "ID":"001"
}
```

- **Sample response Format:**

```
{
```

```
        "emailStatus": "success",
        "apiStatus": "success",
        "errorCode": ""
    }
```

City Search API:

- **Functionality:** Returns the city names available in the database as per the search string provided in the request. If no dat is provided, the API returns all available city names in the database.
- **Calling Conditions:**
    1. When the customer clicks on the city name text field, this API is triggered and returns all available city names in the database.
    2. This API is also triggered as the customer starts entering the data and by matching the search string with the available city names and returning the matched cities.
    3. The output is a list of jsons matching the search string.
- **Development URI:** http://localhost:8080/booking/citySearch
  - **Input fields:**
    1. **SrchStr**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value

  - **Output fields:** The output is a json having the following fields.
    1. **city**
        a. datatype: String
        b. Mandatory field status: Mandatory field in the response
        c. Mandatory field value: mandatory value

    2. **state**
        a. datatype: String
        b. Mandatory field status: Mandatory field in the response
        c. Mandatory field value: Mandatory value

  - **Sample Request Format:**
    ```
    {
    "SrchStr":"F"
    }
    ```

  - **Sample response Format:**

```
[
  {
    "city": "Florida City",
    "state": "Florida"
  },
  {
    "city": "Fort Lauderdale",
    "state": "Florida"
  }
]
```

Hotel Search API:

- **Functionality:** Returns the hotels available in the city and the state provided in the search bar along with additional data regarding the hotels.
- **Calling Conditions:**
    1. When the customer clicks on search button after entering the required information, the API is triggered and all the available hotels in the given city, state on the checkin, checkout dates are returned. The filter fields are null in this case.
    2. This API is also triggered when the customer hits apply filters button after selecting the filters available. This sorts the search data in the requested criteria.
    3. The response is a list of jsons with hotel data matching the search criteria.

- **Development URI:** http://localhost:8080/booking/hotelSearch
- **Input fields:**
    1. **City**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value
    2. **State**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value
    3. **Checkin**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: not a mandatory value
    4. **Checkout**
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: not a mandatory value

     5. **Pricefilter**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: not a mandatory value
     6. **Ratingfilter**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: not a mandatory value

- **Output fields:** The output is a json having the following fields.
  1. **city**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value

  2. **state**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: Mandatory Value

  3. **hotelName**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: Mandatory value.

  4. **rating**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: Mandatory value.

  5. **standardPrice**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: Mandatory value.

  6. **id**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: Mandatory value (unique ID of a hotel)

- **Sample Request Format:**
  ```
  {
     "City":"Gainesville",
  ```

```
            "State":"Florida",
            "Checkin":"3/27/2022",
            "Checkout":"3/31/2022",
            "Pricefilter":"",
            "Ratingfilter":""
        }
```

- **Sample response Format:**

```
[
  {
     "city": "Gainesville",
     "state": "Florida",
     "hotelName": "Red Roof",
     "rating": "3.9",
     "standardprice": "",
     "id": "001"
  },
  {
     "city": "Gainesville",
     "state": "Florida",
     "hotelName": "Drury Inn Suites",
     "rating": "4.8",
     "standardPrice": "",
     "id": "002"
  }
]
```

Hotel Details API:

- **Functionality:** Returns the details regarding the hotel selected by the customer from the search options when hotel details button is selected.

- **Calling Conditions:**
    1. When the customer clicks on hotel details button on any one of the options provided on the search page, this API is triggered with an unique ID of that hotel option as an input and returns the details regarding it from the database.
    2. The response is a json field with the values given below.
- **Development URI:** http://localhost:8080/booking/hotelDetails
  - **Input fields:**
    1. **ID**
        a. datatype: String

b. Mandatory field status: mandatory field in the input request.

c. Mandatory field value: mandatory value (Unique ID of the Hotel)

- **Output fields:** The output is a json having the following fields.
  1. **city**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value

  2. **state**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value

  3. **hotelName**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value.

  4. **rating**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value.

  5. **address**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value.

  6. **amenities**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value.

  7. **standardPrice**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: Mandatory value.

  8. **id**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: Mandatory value (unique ID of a hotel)

- **Sample Request Format:**
  ```
  {
     "ID":"001"
  }
  ```

- **Sample response Format:**
  ```
  {
     "city": "Gainesville",
     "state": "Florida",
     "hotelName": "Red Roof",
     "rating": "3.9",
     "standardPrice": "83",
     "address": "3500 SW 42nd St, Gainesville, FL 32608",
     "amenities": "Wifi, Swimming Pool, Parking, AC",
     "id           ": "001"
  }
  ```

Hotel Payment API:

- **Functionality:** Returns the payment status, and otp code by triggering an email API used for authenticating customer. The OTP is used at front end for authorization.
- **Calling Conditions:**
  1. When the customer clicks on checkout button after entering the required information needed for payment, this API is triggered.
  2. This API triggers email API with the email type as HOTP.
  3. This returns the payment status representing the status of the mail sent to the customer, OTP if mail is successfully sent to authenticate at the front end and an error code in case of any errors.
  4. Few predefined errors will be provided at the end of document.
- **Development URI:** http://localhost:8080/booking/hotePayment
- **Input fields:**
  1. **CustomerName**
     a. datatype: String
     b. Mandatory field status: mandatory field in the input request.
     c. Mandatory field value: mandatory value
  2. **MobileNumber**
     a. datatype: String
     b. Mandatory field status: mandatory field in the input request.
     c. Mandatory field value: mandatory value
  3. **EmailAdd**

a. datatype: String

b. Mandatory field status: mandatory field in the input request.

c. Mandatory field value: mandatory value.

- **Output fields:** The output is a json having the following fields.

  1. **status**

     a. datatype: String

     b. Mandatory field status: Mandatory field in the response

     c. Mandatory field value: mandatory value (success/failure)

  2. **otpCode**

     a. datatype: String

     b. Mandatory field status: Mandatory field in the response

     c. Mandatory field value: not mandatory, given only if status is success.

  3. **errorCode**

     a. datatype: String

     b. Mandatory field status: Mandatory field in the response

     c. Mandatory field value: null if status is success else returns error code.

- **Sample Request Format:**

```
{
   "CustomerName":"xxxxxxx xxxxx",
   "MobileNumber":"xxxxxxxxxx",
   "EmailAdd":"xxxxxxxxxx@gmail.com",
}
```

- **Sample response Format:**

```
{
   "status": "SUCCESS",
   "otpCode": "160901",
   "errorCode": ""
}
```

Hotel Booking Confirmation API:

- **Functionality:** This API sends a confirmation mail to the customer after the otp code is validated successfully at the front end. It stores the hotel booking information of the customer at the backend database and returns the email, data storage status and also error code in case of any.
- **Calling Conditions:**

1. When the customer enters the OTP code in the popup and front end validates the code, this API is triggered whn the code is successfully validated.
2. The information regarding the hotel booking is passed in the required fields.
3. This API also triggers the email API with MailType as HCONF.
4. The response is the json with below response fields.

- **Development URI:** http://localhost:8080/booking/hotelConfirm
  - **Input fields:**
    1. **CodeStatus**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value (Success)
    2. **BookingDates**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value
    3. **CustomerName**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value
    4. **EmailAdd**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value
    5. **MobileNumber**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value
    6. **HotelName**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value
    7. **City**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value
    8. **State**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value
    9. **ID**
       a. datatype: String
       b. Mandatory field status: mandatory field in the input request.
       c. Mandatory field value: mandatory value (Unique id of the hotel)

- **Output fields:** The output is a json having the following fields.
  1. **emailStatus**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value (success/failure)

  2. **apiStatus**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: mandatory value (success/failure)

  3. **errorCode**
     a. datatype: String
     b. Mandatory field status: Mandatory field in the response
     c. Mandatory field value: null if status is success else returns error code.

- **Sample Request Format:**
  ```
  {
      "CodeStatus":"Success",
      "BookingDates":"3/28/2022 - 3/31/2022",
      "CustomerName":"Ahamad Shaik",
      "EmailAdd":"ahamadshaik333@gmail.com",
      "MobileNumber":"3527093318",
      "HotelName":"Drury Inn",
      "City":"gainesville",
      "State":"Florida",
      "ID":"001"
  }
  ```

- **Sample response Format:**

  ```
  {
      "emailStatus": "success",
      "apiStatus": "success",
      "errorCode": ""
  }
  ```

User Registration API:

- **Functionality:** This API is triggered to register a new user into the database by taking necessary information from the customer. The customer later on uses the username and password for logging in.
- **Calling Conditions:**
    5. This API is called whn user click on register in the login page.
    6. An unique userid and a default session token is created for the user during registration.
- **Development URI:** http://localhost:8080/booking/userRegistration
    - **Input fields:**
        10. **FirstName**
            d. datatype: String
            e. Mandatory field status: mandatory field in the input request.
            f. Mandatory field value: mandatory value
        11. **LastName**
            d. datatype: String
            e. Mandatory field status: mandatory field in the input request.
            f. Mandatory field value: mandatory value
        12. **EmailId**
            d. datatype: String
            e. Mandatory field status: mandatory field in the input request.
            f. Mandatory field value: mandatory value
        13. **MobileNumber**
            d. datatype: String
            e. Mandatory field status: mandatory field in the input request.
            f. Mandatory field value: mandatory value
        14. **Password**
            d. datatype: String
            e. Mandatory field status: mandatory field in the input request.
            d. Mandatory field value: mandatory value

    - **Output fields:** The output is a json having the following fields.
        4. **status**
            d. datatype: String
            e. Mandatory field status: Mandatory field in the response
            f. Mandatory field value: mandatory value (success/failure)

        5. **userId**
            d. datatype: String
            e. Mandatory field status: Mandatory field in the response

  f. Mandatory field value: mandatory value (an uniqueid created to the user)

 6. error
  d. datatype: String
  e. Mandatory field status: Mandatory field in the response
  f. Mandatory field value: null if status is success else returns error code.

- **Sample Request Format:**

```
{
   "FirstName":"Ahamad",
   "LastName":"Shaik",
   "EmailId":"ahamad@gmail.com",
   "MobileNumber":"+13527093318",
   "Password":"Password@4"
}
```

- **Sample response Format:**

```
{
   "status": "success",
   "userId": "8",
   "error": ""
}
```

User LOGIN API

- **Functionality:** This API is triggered when an already registered user logs into his account by providing email and password.
- **Calling Conditions:**
  7. This API is called whn user click on login button after entering credentials.
  8. A unique session id is created for the user for that time period to access the data securely preventing the unrestricted access.
- **Development URI:** http://localhost:8080/booking/login
  - **Input fields:**
    15. **EmailId**
     g. datatype: String
     h. Mandatory field status: mandatory field in the input request.
     i. Mandatory field value: mandatory value
    16. **Password**
     g. datatype: String
     h. Mandatory field status: mandatory field in the input request.
     i. Mandatory field value: mandatory value

- **Output fields:** The output is a json having the following fields.
  7. **loginStatus**
     - g. datatype: String
     - h. Mandatory field status: Mandatory field in the response
     - i. Mandatory field value: mandatory value (success/failure)

  8. **userId**
     - g. datatype: String
     - h. Mandatory field status: Mandatory field in the response
     - i. Mandatory field value: mandatory value (an uniqueid created to the user)

  9. **error**
     - g. datatype: String
     - h. Mandatory field status: Mandatory field in the response
     - i. Mandatory field value: null if status is success else returns error code.

  10. **token**
     - j. datatype: String
     - k. Mandatory field status: Mandatory field in the response
     - l. Mandatory field value: null if status is success else returns error code.

- **Sample Request Format:**
```
{
   "EmailID":"ahamad.999s@gmail.com",
   "Password":"Password@4"
}
```

- **Sample response Format:**
```
{
   "loginStatus": "success",
   "userId": "7",
   "error": "",
   "token": "YWhA==1650429992045030300"
}
```

Flight History API

- **Functionality:** Returns the previous history of flights booked until the date when clicked on check previous bookings. This API also uses additional authentication to authenticate a valid user by using two headers.

- **Calling Conditions**:When the customer clicks on previous bookings button for flights on the webpage.The response is a json field with the values given below.

- **Development URI**: http://localhost:8080/booking/PostLoginFlight

- **Input fields**:

     1. **UserId**
          a. datatype: String
          b. Mandatory field status: mandatory field in the input request.
          c. Mandatory field value: mandatory value
- **Output fields**: The output is a json having the following fields.
     1. **Status**
          a. datatype: String
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: mandatory value
     2. **Response**
          a. datatype: String or numeric
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: mandatory value (a json array with following json structure)

     1. **ReferenceNumber**
          a. datatype: String
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: mandatory value.
     2. **Bookingdates**
          a. datatype: String
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: mandatory value.
     3. **Source**
          a. datatype: String
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: mandatory value.
     4. **Destination**
          a. datatype: String
          b. Mandatory field status: Mandatory field in the response
          c. Mandatory field value: mandatory value.
     5. **ID**
          a. datatype: String
          b. Mandatory field status: Mandatory field in the response

c. Mandatory field value: mandatory value.
            6. Price
                    a. datatype: String
                    b. Mandatory field status: Mandatory field in the response
                    c. Mandatory field value: mandatory value.

- **Sample Request Format:**

    ```
    {
    "UserId":""
    }
    ```

- **Sample Response Format:**

    ```
    {
      "status": "",
      "response":[
      {
      "referenceNumber": "",
      "bookingDates": "",
      "source": "",
      "destination": "",
      "id": "",
      "price": ""
      }]
    }
    ```

Hotel History API

- **Functionality**

Returns the previous history of hotels booked until the date when clicked on check previous bookings. This API also uses additional authentication to authenticate a valid user by using two headers.

- **Calling Conditions:**

1. When the customer clicks on previous bookings button for hotels on the webpage.
2. The response is a json field with the values given below.

- Development URI: http://localhost:8080/booking/PostLoginHotel

- Input fields
1. UserId
        a. datatype: String
        b. Mandatory field status: mandatory field in the input request.
        c. Mandatory field value: mandatory value

Output fields: The output is a json having the following fields.

1. **Status**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value

2. **Response**
	a. datatype: String or numeric
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value

1. **ReferenceNumber**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value.

2. **City**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value.

3. **State**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value.

4. **HotelName**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value.

5. **BookingDates**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value.

6. **Price**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value.

7. **ID**
	a. datatype: String
	b. Mandatory field status: Mandatory field in the response
	c. Mandatory field value: mandatory value.

- **Sample Request Format:**
	```
	{
	"UserId":""
	}
	```

- **Sample Response Format:**
	```
	{
	"status": "",
	"response":[
	```

```
{
"referenceNumber": "",
"City": "",
"State": "",
"HotelName": "",
"bookingDates": "",
"price": "",
"id": "",
}]
}
```