Milestone 2 Backend Fast API Endpoints Output (Dynamic Pricing Engine)

Swagger UI – Open in Browser: http://127.0.0.1:8000/docs.
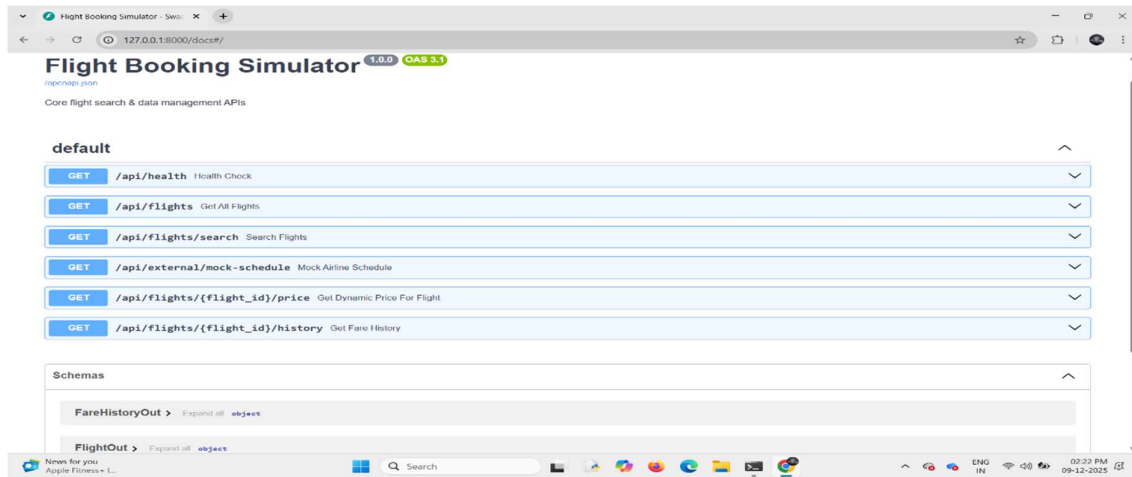
ENDPOINTS

1. Health Check
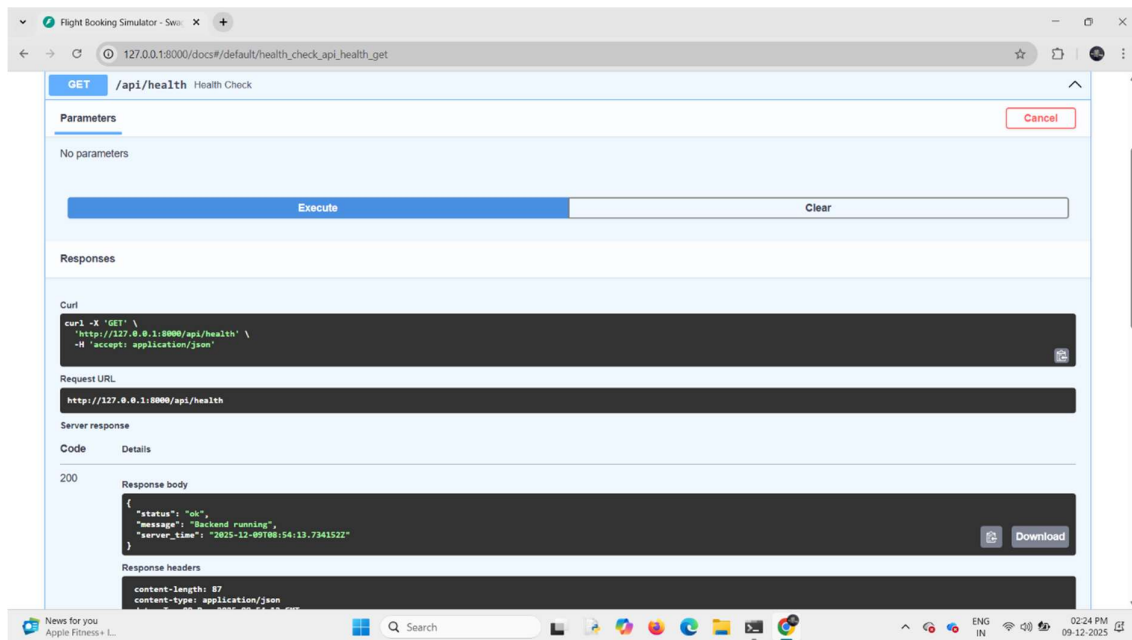
2. Get All Flights

GET `/api/flights` Get All Flights

Parameters

Cancel

Name	Description
sort_by string *(query)*	duration ▾
sort_order string *(query)*	desc ▾

Execute | Clear

Responses

Curl

```
curl -X 'GET' \
  'http://127.0.0.1:8000/api/flights?sort_by=duration&sort_order=desc' \
  -H 'accept: application/json'
```

Request URL

```
http://127.0.0.1:8000/api/flights?sort_by=duration&sort_order=desc
```

Server response

Code   Details

Server response

Code   Details

200   Response body

```
[
  {
    "id": 3,
    "flight_no": "FB201",
    "airline_name": "IndiGo",
    "origin": "Chennai",
    "destination": "Delhi",
    "departure_time": "2025-11-25T09:30:00",
    "arrival_time": "2025-11-25T12:15:00",
    "duration_minutes": 165,
    "base_fare": 7200,
    "total_seats": 200,
    "seats_available": 182
  },
  {
    "id": 4,
    "flight_no": "FB202",
    "airline_name": "IndiGo",
    "origin": "Delhi",
    "destination": "Chennai",
    "departure_time": "2025-11-25T16:00:00",
    "arrival_time": "2025-11-25T18:45:00",
    "duration_minutes": 165,
    "base_fare": 7100,
    "total_seats": 200,
    "seats_available": 189
  },
```

Download

Response headers

```
content-length: 1525
content-type: application/json
date: Tue,09 Dec 2025 08:56:24 GMT
server: uvicorn
```

Responses

Code	Description	Links
200	Successful Response	*No links*

Server response

Code   Details

200   Response body
            {
              "id": 6,
              "flight_no": "FB302",
              "airline_name": "AirIndia",
              "origin": "Bangalore",
              "destination": "Mumbai",
              "departure_time": "2025-11-25T18:00:00",
              "arrival_time": "2025-11-25T20:20:00",
              "duration_minutes": 140,
              "base_fare": 6000,
              "total_seats": 150,
              "seats_available": 131
            },
            {
              "id": 5,
              "flight_no": "FB301",
              "airline_name": "AirIndia",
              "origin": "Mumbai",
              "destination": "Bangalore",
              "departure_time": "2025-11-25T11:00:00",
              "arrival_time": "2025-11-25T13:15:00",
              "duration_minutes": 135,
              "base_fare": 5800,
              "total_seats": 150,
              "seats_available": 144
            },
            {
              "id": 2,

            Response headers

            content-length: 1525
            content-type: application/json
            date: Tue,09 Dec 2025 08:56:24 GMT
            server: uvicorn

Responses

Code	Description	Links
200	Successful Response	No links

Server response

Code   Details

200   Response body
            [
              {
                "id": 2,
                "flight_no": "FB102",
                "airline_name": "SpiceJet",
                "origin": "Delhi",
                "destination": "Mumbai",
                "departure_time": "2025-11-25T13:00:00",
                "arrival_time": "2025-11-25T15:10:00",
                "duration_minutes": 130,
                "base_fare": 6200,
                "total_seats": 180,
                "seats_available": 180
              },
              {
                "id": 1,
                "flight_no": "FB101",
                "airline_name": "SpiceJet",
                "origin": "Mumbai",
                "destination": "Delhi",
                "departure_time": "2025-11-25T08:00:00",
                "arrival_time": "2025-11-25T10:05:00",
                "duration_minutes": 125,
                "base_fare": 6500,
                "total_seats": 180,
                "seats_available": 172
              }
            ]

            Response headers

            content-length: 1525
            content-type: application/json
            date: Tue,09 Dec 2025 08:56:24 GMT
            server: uvicorn

Responses

Code	Description	Links
200	Successful Response	No links

3. **Search Flights**

GET `/api/flights/search` Search Flights

Parameters

Cancel

Name	Description
origin * required string (query)	Origin city (e.g., Mumbai) Chennai
destination * required string (query)	Destination city (e.g., Delhi) Delhi
travel_date * required string($date) (query)	Travel date in YYYY-MM-DD 2025-11-25
sort_by string (query)	price
sort_order string (query)	asc

Execute | Clear

Responses

Curl

Responses

Curl

```
curl -X 'GET' \
  'http://127.0.0.1:8000/api/flights/search?origin=Chennai&destination=Delhi&travel_date=2025-11-25&sort_by=price&sort_order=asc' \
  -H 'accept: application/json'
```

Request URL

```
http://127.0.0.1:8000/api/flights/search?origin=Chennai&destination=Delhi&travel_date=2025-11-25&sort_by=price&sort_order=asc
```

Server response

Code	Details
200	**Response body**

```
[
  {
    "id": 3,
    "flight_no": "F8201",
    "airline_name": "IndiGo",
    "origin": "Chennai",
    "destination": "Delhi",
    "departure_time": "2025-11-25T09:30:00",
    "arrival_time": "2025-11-25T12:15:00",
    "duration_minutes": 165,
    "base_fare": 7200,
    "total_seats": 200,
    "seats_available": 184,
    "dynamic_price": 7560
  }
]
```

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Response headers

```
content-length: 276
content-type: application/json
date: Tue,09 Dec 2025 08:58:46 GMT
server: uvicorn
```

Responses

Responses

Curl

```
curl -X 'GET' \
  'http://127.0.0.1:8000/api/flights/search?origin=Chennai&destination=Delhi&travel_date=2025-11-26&sort_by=price&sort_order=asc' \
  -H 'accept: application/json'
```

Request URL

```
http://127.0.0.1:8000/api/flights/search?origin=Chennai&destination=Delhi&travel_date=2025-11-26&sort_by=price&sort_order=asc
```

Server response

Code	Details
404 *Undocumented*	Error: Not Found

Response body

```
{
  "detail": "No flights found from Chennai to Delhi on 2025-11-26"
}
```

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Response headers

```
content-length: 65
content-type: application/json
date: Tue,09 Dec 2025 09:01:07 GMT
server: uvicorn
```

Responses

Code	Description	Links
200	Successful Response	No links

Media type

application/json

Controls Accept header.

29°C
Mostly sunny
Search
ENG
IN
02:31 PM
09-12-2025

GET **/api/flights/search** Search Flights

Parameters

Cancel

Name	Description
origin * required string *(query)*	Origin city (e.g., Mumbai) Chennai
destination * required string *(query)*	Destination city (e.g., Delhi) Chennai
travel_date * required string($date) *(query)*	Travel date in YYYY-MM-DD 2025-11-26
sort_by string *(query)*	price
sort_order string *(query)*	asc

Execute   Clear

Responses

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09-12-2025

Responses

Curl

```
curl -X 'GET' \
  'http://127.0.0.1:8000/api/flights/search?origin=Chennai&destination=Chennai&travel_date=2025-11-26&sort_by=price&sort_order=asc' \
  -H 'accept: application/json'
```

Request URL

```
http://127.0.0.1:8000/api/flights/search?origin=Chennai&destination=Chennai&travel_date=2025-11-26&sort_by=price&sort_order=asc
```

Server response

Code	Details
400 *Undocumented*	Error: Bad Request

Response body

```
{
  "detail": "Origin and destination must be different"
}
```

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Response headers

```
content-length: 53
content-type: application/json
date: Tue,09 Dec 2025 09:02:11 GMT
server: uvicorn
```

Responses

Code	Description	Links
200	Successful Response	No links

Media type

```
application/json
```

Controls Accept header.

Example Value | Schema

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Q Search

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4. External Airline Schedule

GET `/api/external/mock-schedule` Mock Airline Schedule

Parameters

Cancel

No parameters

Execute	Clear

Responses

Curl

```
curl -X 'GET' \
  'http://127.0.0.1:8000/api/external/mock-schedule' \
  -H 'accept: application/json'
```

Request URL

```
http://127.0.0.1:8000/api/external/mock-schedule
```

Server response

Code	Details
200	Response body

```
{
  "provider": "Arun",
  "generated_at": "2025-12-09T09:03:12.369255Z",
  "flights": [
    {
      "flight_no": "FB401",
      "airline_name": "AirIndiaExpress",
      "origin": "Kolkata",
      "destination": "Chennai",
      "departure_time": "2025-11-25 06:00:00",
      "arrival_time": "2025-11-25 08:10:00",
```

Trending videos
The Hunger Ga...

Q Search

ENG
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09-12-2025

Server response

Code   Details

200   Response body

```
    "provider": "Arun",
    "generated_at": "2025-12-09T09:03:12.369255Z",
    "flights": [
        {
            "flight_no": "FB401",
            "airline_name": "AirIndiaExpress",
            "origin": "Kolkata",
            "destination": "Chennai",
            "departure_time": "2025-11-25 06:00:00",
            "arrival_time": "2025-11-25 08:10:00",
            "duration_minutes": 130,
            "base_fare": 6425,
            "total_seats": 180,
            "seats_available": 100
        },
        {
            "flight_no": "FB402",
            "airline_name": "AirIndiaExpress",
            "origin": "Hyderabad",
            "destination": "Mumbai",
            "departure_time": "2025-11-25 09:30:00",
            "arrival_time": "2025-11-25 12:05:00",
            "duration_minutes": 155,
            "base_fare": 6670,
            "total_seats": 120,
            "seats_available": 67
        }
    ]
```

Response headers

```
content-length: 588
content-type: application/json
```

5. Get Dynamic Price for a Single Flight

GET   /api/flights/{flight_id}/price   Get Dynamic Price For Flight

Parameters   Cancel

Name   Description

flight_id * required
integer
(path)

4

Execute   Clear

Responses

Curl

```
curl -X 'GET' \
  'http://127.0.0.1:8000/api/flights/4/price' \
  -H 'accept: application/json'
```

Request URL

```
http://127.0.0.1:8000/api/flights/4/price
```

Server response

Code   Details

200   Response body

```
{
    "id": 4,
    "flight_no": "FB202",
```

Server response

Code   Details

200   Response body

```
{
  "id": 4,
  "flight_no": "FB202",
  "airline_name": "IndiGo",
  "origin": "Delhi",
  "destination": "Chennai",
  "departure_time": "2025-11-25T16:00:00",
  "arrival_time": "2025-11-25T18:45:00",
  "duration_minutes": 165,
  "base_fare": 7100,
  "total_seats": 200,
  "seats_available": 195,
  "dynamic_price": 7455
}
```
Download

Response headers

```
content-length: 274
content-type: application/json
date: Tue,09 Dec 2025 09:04:37 GMT
server: uvicorn
```

Responses

Code   Description   Links

200   Successful Response   No links

            Media type

            application/json   ▼

            Controls Accept header.

            Example Value | Schema

```
{
  "id": 0,
  "flight_no": "string",
  "airline_name": "string",
  "origin": "string",
```

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6. Get Fare History for a Single Flight (Tracking the Changes Over Time)

GET /api/flights/{flight_id}/history Get Fare History   ∧

Parameters   Cancel

Name   Description

flight_id * required
integer   6
(path)

Execute	Clear

Responses

Curl

```
curl -X 'GET' \
  'http://127.0.0.1:8000/api/flights/6/history' \
  -H 'accept: application/json'
```

Request URL

```
http://127.0.0.1:8000/api/flights/6/history
```

Server response

Code   Details

200   Response body

```
[
  {
    "recorded_at": "2025-12-09T09:06:14",
```

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                                                                                            IN   09-12-2025

Code	Details
200	**Response body**

```
[
  {
    "recorded_at": "2025-12-09T09:06:14",
    "dynamic_price": 6000,
    "seats_available": 150,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-09T09:05:14",
    "dynamic_price": 6000,
    "seats_available": 147,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-09T09:04:13",
    "dynamic_price": 5700,
    "seats_available": 146,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-09T09:03:13",
    "dynamic_price": 7200,
    "seats_available": 147,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-09T09:02:13",
```

Response headers

Code	Details
200	**Response body**

```
  {
    "recorded_at": "2025-12-08T19:42:57",
    "dynamic_price": 5700,
    "seats_available": 133,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-08T19:41:57",
    "dynamic_price": 7200,
    "seats_available": 138,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-08T19:40:57",
    "dynamic_price": 6000,
    "seats_available": 135,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-08T19:39:56",
    "dynamic_price": 7200,
    "seats_available": 131,
    "demand_level": null
  },
  {
    "recorded_at": "2025-12-08T19:38:56",
    "dynamic_price": 5700,
    "seats_available": 133,
```

Response headers

Terminal Output: