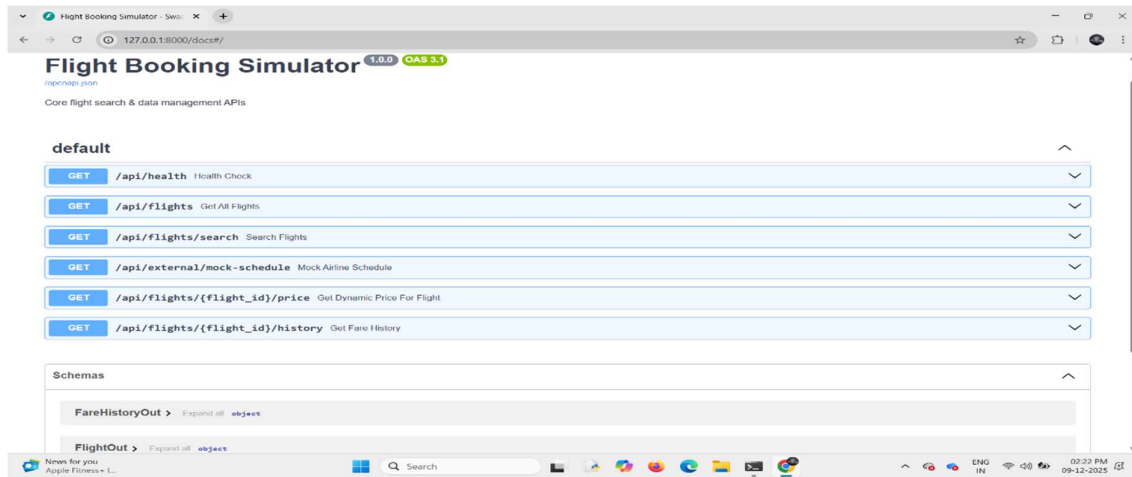


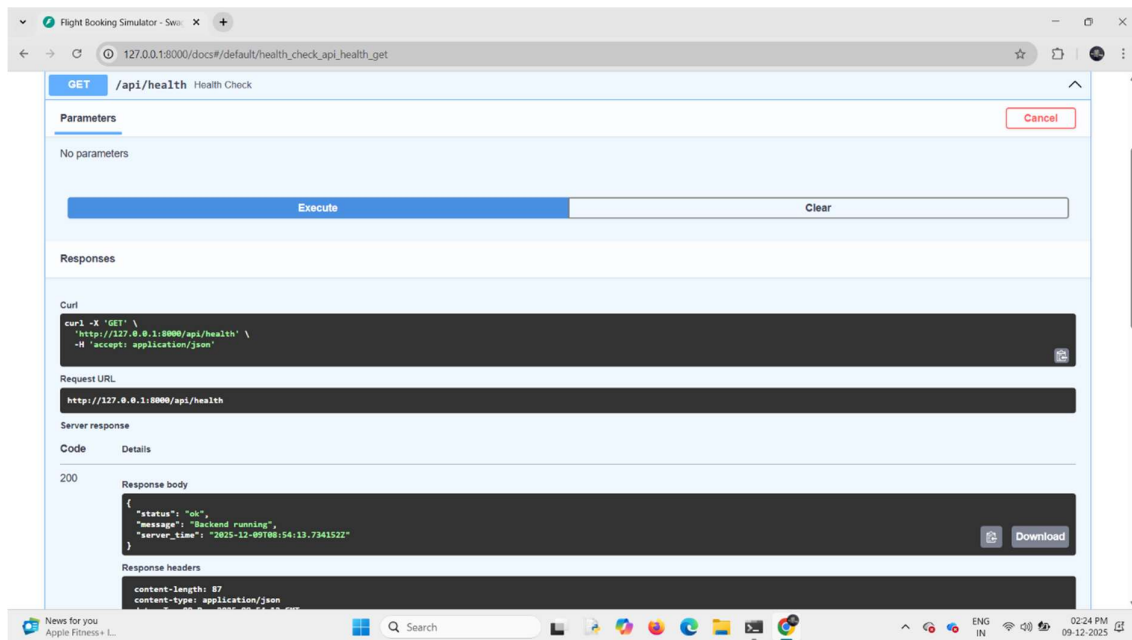
Milestone 2 Backend Fast API Endpoints Output (Dynamic Pricing Engine)

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



ENDPOINTS

1. Health Check



2. Get All Flights

Flight Booking Simulator - Swi x +

127.0.0.1:8000/docs#/default/get_all_flights_api_flights.get

GET /api/flights Get All Flights

Parameters

Cancel

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

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
------	---------

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Flight Booking Simulator - Swi x +

127.0.0.1:8000/docs#/default/get_all_flights_api_flights.get

Server response

Code	Details
200	<p>Response body</p> <pre>{ "id": 3, "flight_no": "FB2021", "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": "FB2022", "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 }</pre> <p>Download</p> <p>Response headers</p> <pre>content-length: 1525 content-type: application/json date: Tue, 09 Dec 2025 08:56:24 GMT server: uvicorn</pre>

Responses

Code	Description	Links
200	Successful Response	No links

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Flight Booking Simulator - Swa X +

127.0.0.1:8000/docs#/default/get_all_flights_api_flights.get

Server response

Code	Details						
200	<p>Response body</p> <pre>{ "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": 140, "seats_available": 131 }, { "id": 5, "flight_no": "FB301", "airline_name": "AirIndia", "origin": "Mumbai", "destination": "Bangalore", "departure_time": "2025-11-25T13:00:00", "arrival_time": "2025-11-25T15:15:00", "duration_minutes": 135, "base_fare": 5800, "total_seats": 150, "seats_available": 144 }, { "id": 3, "flight_no": "FB102", "airline_name": "SpiceJet", "origin": "Delhi", "destination": "Mumbai", "departure_time": "2025-11-25T15:10:00", "arrival_time": "2025-11-25T18:00:00", "duration_minutes": 130, "base_fare": 6500, "total_seats": 180, "seats_available": 172 }]</pre> <p>Response headers</p> <pre>content-length: 1525 content-type: application/json date: Tue, 09 Dec 2025 08:56:24 GMT server: uvicorn</pre> <p>Responses</p> <table><thead><tr><th>Code</th><th>Description</th><th>Links</th></tr></thead><tbody><tr><td>200</td><td>Successful Response</td><td>No links</td></tr></tbody></table>	Code	Description	Links	200	Successful Response	No links
Code	Description	Links					
200	Successful Response	No links					

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Flight Booking Simulator - Swa X +

127.0.0.1:8000/docs#/default/get_all_flights_api_flights.get

Server response

Code	Details						
200	<p>Response body</p> <pre>{ "id": 3, "flight_no": "FB102", "airline_name": "SpiceJet", "origin": "Delhi", "destination": "Mumbai", "departure_time": "2025-11-25T15:10:00", "arrival_time": "2025-11-25T18:00:00", "duration_minutes": 130, "base_fare": 6500, "total_seats": 180, "seats_available": 172 }, { "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 }]</pre> <p>Response headers</p> <pre>content-length: 1525 content-type: application/json date: Tue, 09 Dec 2025 08:56:24 GMT server: uvicorn</pre> <p>Responses</p> <table><thead><tr><th>Code</th><th>Description</th><th>Links</th></tr></thead><tbody><tr><td>200</td><td>Successful Response</td><td>No links</td></tr></tbody></table>	Code	Description	Links	200	Successful Response	No links
Code	Description	Links					
200	Successful Response	No links					

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3. Search Flights

Flight Booking Simulator - Swa

127.0.0.1:8000/docs#/default/search_flights_api_flights_search_get

GET /api/flights/search Search Flights

Parameters

Cancel

Name	Description
origin * required string (query)	Origin city (e.g., Mumbai) <input type="text" value="Chennai"/>
destination * required string (query)	Destination city (e.g., Delhi) <input type="text" value="Delhi"/>
travel_date * required string(\$date) (query)	Travel date in YYYY-MM-DD <input type="text" value="2025-11-25"/>
sort_by string (query)	<input type="text" value="price"/>
sort_order string (query)	<input type="text" value="asc"/>

Execute **Clear**

Responses

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Flight Booking Simulator - Swa

127.0.0.1:8000/docs#/default/search_flights_api_flights_search_get

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	<p>Response body</p> <pre>{ "id": 1, "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": 184, "dynamic_price": 7568 }</pre> <p>Response headers</p> <pre>content-length: 276 content-type: application/json date: Tue, 09 Dec 2025 08:58:46 GMT server: uvicorn</pre>

Responses

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Flight Booking Simulator - Swa: x +

127.0.0.1:8000/docs#/default/search_flights_api_flights_search_get

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	Error: Not Found

Response body

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

Response headers

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

Responses

Code	Description	Links
200	Successful Response	No links

Media type:

Controls Accept header:

Flight Booking Simulator - Swa: x +

127.0.0.1:8000/docs#/default/search_flights_api_flights_search_get

GET /api/flights/search Search Flights

Parameters

Name	Description
origin * required string (query)	Origin city (e.g., Mumbai) <input type="text" value="Chennai"/>
destination * required string (query)	Destination city (e.g., Delhi) <input type="text" value="Chennai"/>
travel_date * required string (date) (query)	Travel date in YYYY-MM-DD <input type="text" value="2025-11-26"/>
sort_by string (query)	<input type="text" value="price"/>
sort_order string (query)	<input type="text" value="asc"/>

Execute **Clear**

Responses

Flight Booking Simulator - Swa

127.0.0.1:8000/docs#/default/search_flights_api_flights_search_get

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	Error: Bad Request

Response body

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

Response headers

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

Responses

Code	Description	Links
200	Successful Response	No links

Media type: application/json

Controls Accept header.

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Search

ENG IN

02:32 PM 09-12-2025

4. External Airline Schedule

Flight Booking Simulator - Swa

127.0.0.1:8000/docs#/default/mock_airline_schedule_api_external_mock_schedule_get

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

Parameters

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": "F8401",
      "airline_name": "AirIndiaExpress",
      "origin": "Kolkata",
      "destination": "Chennai",
      "departure_time": "2025-11-25 06:00:00",
      "arrival_time": "2025-11-25 08:30:00"
    }
  ]
}
```

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Flight Booking Simulator - Swa: X +

127.0.0.1:8000/docs#/default/mock_airline_schedule_api_external_mock_schedule_get

Server response

Code	Details
200	<p>Response body</p> <pre>{ "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": 180 }, { "flight_no": "FB402", "airline_name": "AirIndiaExpress", "origin": "Hyderabad", "destination": "Punjab", "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 }] }</pre> <p>Response headers</p> <pre>content-length: 588 content-type: application/json</pre>

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5. Get Dynamic Price for a Single Flight

Flight Booking Simulator - Swa: X +

127.0.0.1:8000/docs#/default/get_dynamic_price_for_flight_api_flights_flight_id_price_get

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

Parameters

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	<p>Response body</p> <pre>{ "id": 4, "flight_no": "FB202", </pre>

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Flight Booking Simulator - Swa: X +

127.0.0.1:8000/docs/default/get_dynamic_price_for_flight_api_flights_flight_id_price_get

Server response

Code	Details
200	<p>Response body</p> <pre>{ "id": 6, "flight_no": "F9302", "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": 185, "dynamic_price": 7455 }</pre> <p>Response headers</p> <pre>content-length: 274 content-type: application/json date: Tue, 09 Dec 2025 09:04:37 GMT server: unicorn</pre>

Responses

Code	Description	Links
200	Successful Response	No links

Media type:

Controls Accept header:

Example Value | Schema

```
{
  "id": 6,
  "flight_no": "string",
  "airline_name": "string",
  "origin": "string",
  "destination": "string",
  "departure_time": "string",
  "arrival_time": "string",
  "duration_minutes": "integer",
  "base_fare": "integer",
  "total_seats": "integer",
  "seats_available": "integer",
  "dynamic_price": "integer"
}
```

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

Flight Booking Simulator - Swa: X +

127.0.0.1:8000/docs/default/get_fare_history_api_flights_flight_id_history_get

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

Parameters

Name	Description
flight_id ^{required}	Integer (path)

6

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	<p>Response body</p> <pre>{ "recorded_at": "2025-12-09T09:06:14", "flight_no": "F9302", "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": 185, "dynamic_price": 7455 }</pre>

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Flight Booking Simulator - Swi: X +

127.0.0.1:8000/docs#/default/get_fare_history_api_flights__flight_id_history_get

Server response

Code	Details
200	<p>Response body</p> <pre>[{ "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": 14, "demand_level": null }, { "recorded_at": "2025-12-09T09:02:13", "dynamic_price": 5700, "seats_available": 133, "demand_level": null }]</pre> <p>Response headers</p>

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Search

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Flight Booking Simulator - Swi: X +

127.0.0.1:8000/docs#/default/get_fare_history_api_flights__flight_id_history_get

Server response

Code	Details
200	<p>Response body</p> <pre>{ "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": 130, "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, "demand_level": null } </pre> <p>Response headers</p>

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Terminal Output:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.26200.7171]
(c) Microsoft Corporation. All rights reserved.

E:\ARUN\flight-booking-m1>backend\venv\scripts\activate

(venv) E:\ARUN\flight-booking-m1>uvicorn backend.main:app --reload
INFO: Will watch for changes in these directories: ['E:\ARUN\flight-booking-m1']
INFO: Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit)
INFO: Started reloader process [1992] using StatReload
INFO: Started server process [13696]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: 127.0.0.1:54367 - "GET /docs HTTP/1.1" 200 OK
INFO: 127.0.0.1:54367 - "GET /openapi.json HTTP/1.1" 200 OK
INFO: 127.0.0.1:55973 - "GET /api/health HTTP/1.1" 200 OK
INFO: 127.0.0.1:55822 - "GET /api/flights?sort_by=duration&sort_order=desc HTTP/1.1" 200 OK
INFO: 127.0.0.1:59835 - "GET /api/flights/search?origin=Chennai&destination=Delhi&travel_date=2025-11-25&sort_by=price&sort_order=asc HTTP/1.1" 200 OK
INFO: 127.0.0.1:63876 - "GET /api/flights/search?origin=Chennai&destination=Delhi&travel_date=2025-11-26&sort_by=price&sort_order=asc HTTP/1.1" 404 Not Found
INFO: 127.0.0.1:52858 - "GET /api/flights/search?origin=Chennai&destination=Chennai&travel_date=2025-11-26&sort_by=price&sort_order=asc HTTP/1.1" 400 Bad Request
INFO: 127.0.0.1:57991 - "GET /api/external/mock-schedule HTTP/1.1" 200 OK
INFO: 127.0.0.1:59849 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:53591 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:64864 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:64864 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:50796 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:57546 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:57546 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:51518 - "GET /api/flights/4/price HTTP/1.1" 200 OK
INFO: 127.0.0.1:53839 - "GET /api/flights/6/history HTTP/1.1" 200 OK
```