Post Request

Create Endpoint (`POST`)

- For creating a new patient

Request Body:

- It contains the data sent by you.
    - In jargon: Contains data sent by the client to the server
- Used in HTTP methods like `Post` / `Put`

Steps

1. Client sends data
2. Data validation
3. Add to database

Code

```
from fastapi import FastAPI, Path, HTTPException, Query
from pydantic import BaseModel, Field
from typing import Annotated, Literal

import json

app = FastAPI()
```

Define a method (Class):

```
class Patient(BaseModel):
    id: Annotated[str, Field(..., description= "ID of the patient", examples= ['P00
1'])]
    name: Annotated[str, Field(..., description= "Name of the patient")]
    city: Annotated[str, Field(..., description="City of patient")]
    gender: Annotated [Literal['male', 'female', 'other'], Field(..., description= "G
neder of patient")]
    age: Annotated[int, Field(..., gt=0, lt=120, description= "Age of the patient")]
    height: Annotated[float, Field(..., gt=0, description= "Height of the patient in
meters")]
    weight: Annotated[float, Field(..., gt=0, description= "Weight of the patient i
n kgs")]
```

- This will be shown in FastAPI
- To calculate `BMI` & `Verdict`, we will use **computed field**

```
class Patient(BaseModel):
      ...

    @computed_field
    @property
    def bmi(self) -> float:
        bmi = bmi= round((self.weight)/(self.height**2),2)
        return bmi

    @computed_field
    @property
    def verdict(self) -> str:
        if self.bmi < 18.5:
            return 'Underweight'
        elif self.bmi < 25:
            return 'Normal'
        elif self.bmi < 30:
            return 'Normal'
```

```
    else:
        return 'Obese'
```

Create an endpoint:

`def create_patient( patient:Patient )`

- The datatype is `Patient` (Pydantic model)
- Data is coming from the request body
- **That data is sent directly to the Pydantic model**
- It will validate the data
- If the data is not in proper format, it will raise an error.

Steps:

1. Load the existing data (For this, we already created a function → `load_data()`)
2. Check duplicates
3. If no dups → Add the entry(patient) to database

We are adding Pydantic object → python dictionary

- Convert pydantic object into dictionary → **`object.model_dump()`**

`exclude=['id']`:

- We're excluding ID because we're providing the ID → `data[patient.id]`

```
@app.post('/create')
def create_patient(patient:Patient):
    # Load data
    data = load_data()

    # Check if patient ID already exists
```

```
    if patient.id in data:

        raise HTTPException (status_code=400, detail="PATIENT ALREADY EXIS
TS")

    # Add entry to dict
    data[patient.id]= patient.model_dump(exclude=['id'])

    # Dict → JSON
    save_data(data)

    #Tell the client that patient has been created:
    return JSONResponse(status_code=201, content= {"message": "Patient cre
ated successfully"})
```

Dictionary → JSON:

- We'll make function for this

```
def save_data(data):
    with open(r"D:\Python_Env\LangChain\FastAPI\patients.json", "w") as f:
        data = json.dump(data, f)
```

Tell the client that patient has been created:

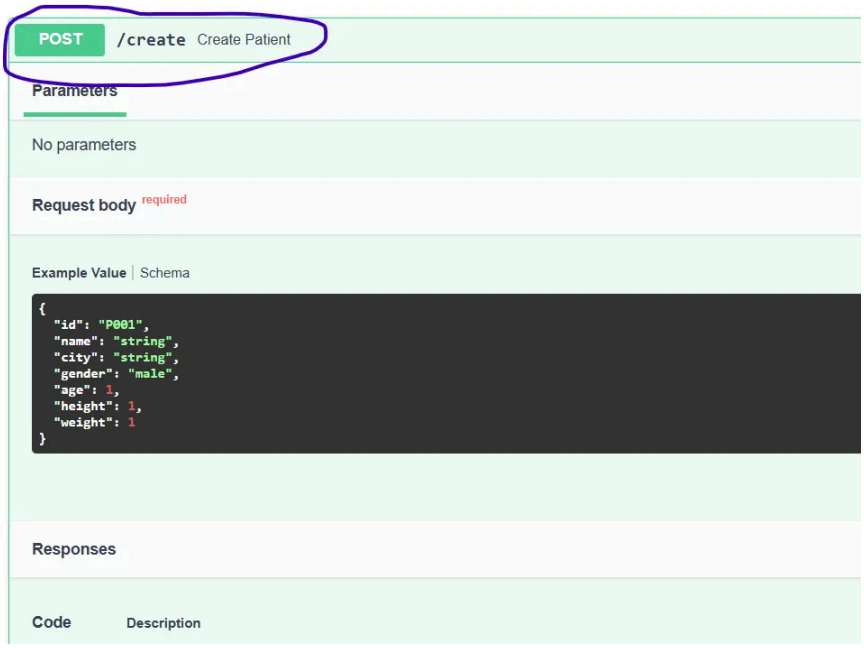
```
from fastapi.responses import JSONResponse

return JSONResponse(status_code=201, content= {"message": "Patient creat
ed successfully"})
```

Run:

```
uvicorn FastAPI.Fast:app
```

💡 Do not use ~~FastAPI/Fast~~

- Go to `/docs`



- New endpoint added

Try to add `P001` :

Curl

```
curl -X 'POST' \
  'http://127.0.0.1:8000/create' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "id": "P001",
  "name": "ytj",
  "city": "cghj",
  "gender": "male",
  "age": 1,
  "height": 1,
  "weight": 1
}'
```

Request URL

```
http://127.0.0.1:8000/create
```

Server response

Code	Details
400 *Undocumented*	Error: Bad Request

Response body

```
{
  "detail": "PATIENT ALREADY EXISTS"
}
```

Response headers

```
content-length: 35
content-type: application/json
date: Mon,18 Aug 2025 14:41:25 GMT
server: uvicorn
```

Responses

Add another ID:

Request body required

Edit Value | Schema

```
{
  "id": "P006",
  "name": "Raj",
  "city": "Pune",
  "gender": "male",
  "age": 18,
  "height": 1.69,
  "weight": 70
}
```

Execute

Responses

Curl

```
curl -X 'POST' \
  'http://127.0.0.1:8000/create' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "id": "P006",
  "name": "raj",
  "city": "pune",
  "gender": "male",
  "age": 19,
  "height": 1.68,
  "weight": 70
}'
```

Request URL

```
http://127.0.0.1:8000/create
```

Server response

Code	Details
201 *Undocumented*	Response body

```
{
  "message": "Patient created successfully"
}
```

Response headers

```
content-length: 42
content-type: application/json
date: Mon,18 Aug 2025 14:56:59 GMT
server: uvicorn
```

Responses

Check:

200

Response body


```
    "gender": "male",
    "height": 1.8,
    "weight": 90,
    "bmi": 27.78,
    "verdict": "Normal"
  },
  "P005": {
    "name": "Neha Sinha",
    "city": "Kolkata",
    "age": 30,
    "gender": "female",
    "height": 1.55,
    "weight": 75,
    "bmi": 31.22,
    "verdict": "Obese"
  },
  "P006": {
    "name": "raj",
    "city": "pune",
    "gender": "male",
    "age": 19,
    "height": 1.68,
    "weight": 70,
    "bmi": 24.8,
    "verdict": "Normal"
  }
}
```