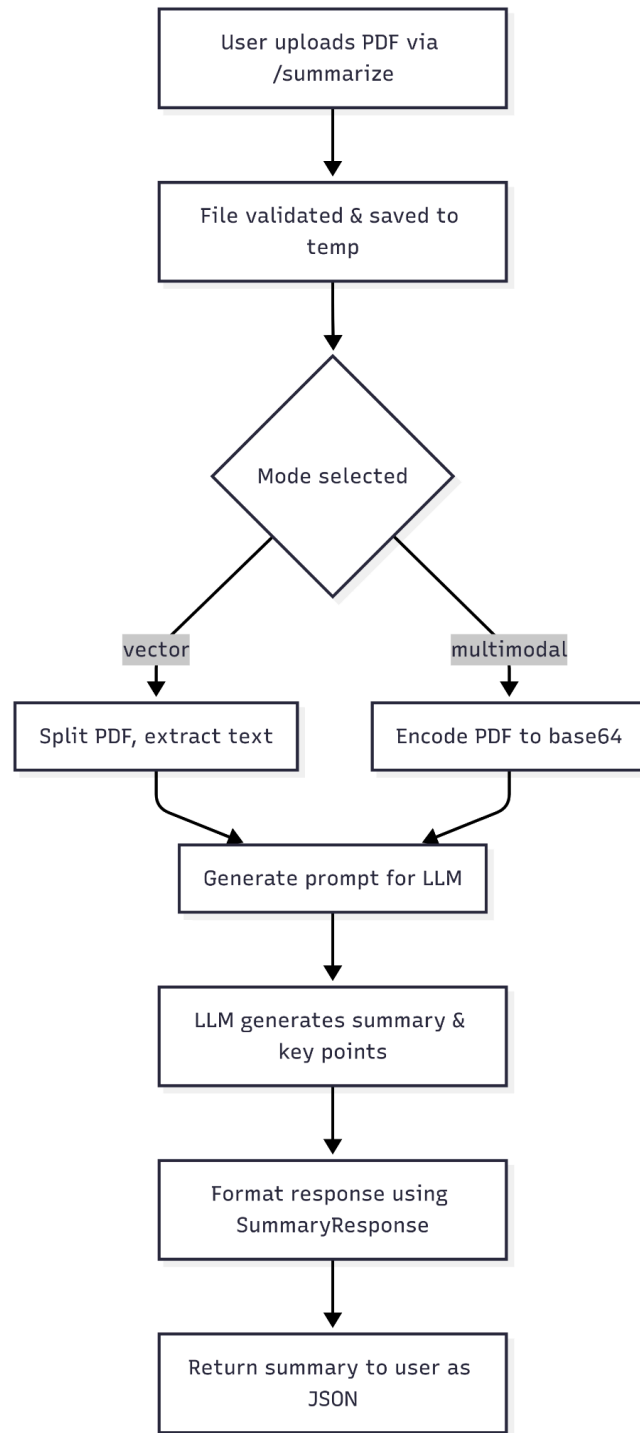


# PDF Summarizer API

## Flow Diagram



## Base URL

http://localhost:8000

## Endpoints

### Health Check

#### GET /

Returns the health status of the API service.

**Parameters:** None

#### Example Request:

```
curl -X GET http://localhost:8000/
```

#### Example Response:

```
{  
  "status": "healthy"  
}
```

#### Status Codes:

- 200 OK - Service is healthy

## PDF Summarization

### POST /summarize

Performs PDF summarization using either vector-based or multimodal analysis with different summary types.

**Content-Type:** multipart/form-data

#### Parameters:

Parameter	Type	Required	Default	Description
file	File	Yes	-	PDF file to summarize (multipart/form-data)
mode	String	No	"vector"	Analysis mode: "vector" or "multimodal"
summary_type	String	No	"comprehensive"	Summary type: "comprehensive", "brief", or "detailed"

#### Mode Differences:

- **Vector Mode:** Uses text-based vector embeddings for summarization
- **Multimodal Mode:** Uses vision capabilities to analyze PDF content including images and visual elements

#### Summary Type Differences:

- **Comprehensive:** Balanced
- **Brief:** Concise
- **Detailed:** In Depth

## Vector Mode Examples

### Example Request (Vector + Comprehensive):

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "mode=vector" \  
-F "summary_type=comprehensive"
```

### Example Response (Vector + Comprehensive):

```
{  
  "message": "PDF summarized successfully",  
  "mode": "vector",  
  "summary_type": "comprehensive",  
  "filename": "document.pdf",  
  "summary": "Summary in Comprehensive manner.",  
  "key_points": ["Point 1", "Point 2", "Point 3", "Point 4", "Point 5"]  
}
```

### Example Request (Vector + Brief):

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "mode=vector" \  
-F "summary_type=brief"
```

### Example Response (Vector + Brief):

```
{  
  "message": "PDF summarized successfully",  
  "mode": "vector",  
  "summary_type": "brief",  
  "filename": "document.pdf",  
  "summary": "Summary in Brief manner.",  
  "key_points": ["Point 1", "Point 2", "Point 3"]  
}
```

**Example Request (Vector + Detailed):**

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "mode=vector" \  
-F "summary_type=detailed"
```

**Example Response (Vector + Detailed):**

```
{  
  "message": "PDF summarized successfully",  
  "mode": "vector",  
  "summary_type": "detailed",  
  "filename": "document.pdf",  
  "summary": "Summary in Detailed manner.",  
  "key_points": [  
    "Point 1",  
    "Point 2",  
    "Point 3",  
    "Point 4",  
    "Point 5",  
    "Point 6",  
    "Point 7",  
    "Point 8",  
    "Point 9"  
  ]  
}
```

## Multimodal Mode Examples

### Example Request (Multimodal + Comprehensive):

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "mode=multimodal" \  
-F "summary_type=comprehensive"
```

### Example Response (Multimodal + Comprehensive):

```
{  
  "message": "PDF summarized successfully",  
  "mode": "multimodal",  
  "summary_type": "comprehensive",  
  "filename": "document.pdf",  
  "summary": "Summary in Comprehensive manner.",  
  "key_points": ["Point 1", "Point 2", "Point 3", "Point 4", "Point 5"]  
}
```

### Example Request (Multimodal + Brief):

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "mode=multimodal" \  
-F "summary_type=brief"
```

### Example Response (Multimodal + Brief):

```
{  
  "message": "PDF summarized successfully",  
  "mode": "multimodal",  
  "summary_type": "brief",  
  "filename": "document.pdf",  
  "summary": "Summary in Brief manner.",  
  "key_points": ["Point 1", "Point 2", "Point 3"]  
}
```

**Example Request (Multimodal + Detailed):**

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "mode=multimodal" \  
-F "summary_type=detailed"
```

**Example Response (Multimodal + Detailed):**

```
{  
  "message": "PDF summarized successfully",  
  "mode": "multimodal",  
  "summary_type": "detailed",  
  "filename": "document.pdf",  
  "summary": "Summary in Detailed manner.",  
  "key_points": [  
    "Point 1",  
    "Point 2",  
    "Point 3",  
    "Point 4",  
    "Point 5",  
    "Point 6",  
    "Point 7",  
    "Point 8",  
    "Point 9"  
  ]  
}
```

**Status Codes:**

- 200 OK - Summarization completed successfully
- 400 Bad Request - Invalid mode, summary type, or unsupported file type
- 422 Unprocessable Entity - Missing required parameters
- 500 Internal Server Error - Server-side processing errors

# Error Responses

## Invalid Analysis Mode

### Example Request:

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "mode=invalid_mode"
```

### Response:

```
{  
  "detail": "Mode must be one of: vector, multimodal"  
}
```

**Status Code:** 400 Bad Request

## Invalid Summary Type

### Example Request:

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/path/to/document.pdf" \  
-F "summary_type=invalid_type"
```

### Response:

```
{  
  "detail": "Summary type must be one of: comprehensive, brief, detailed"  
}
```

**Status Code:** 400 Bad Request



## Missing File Parameter

### Example Request:

```
curl -X POST http://localhost:8000/summarize \  
-F "mode=vector"
```

### Response:

```
{  
  "detail": [  
    {  
      "type": "missing",  
      "loc": ["body", "file"],  
      "msg": "Field required",  
      "input": null  
    }  
  ]  
}
```

**Status Code:** 422 Unprocessable Entity

## Invalid File Type

### Example Request:

```
curl -X POST http://localhost:8000/summarize \  
-F "file=@/tmp/test.txt" \  
-F "mode=vector"
```

### Response:

```
{  
  "detail": "Only PDF files are supported."  
}
```

**Status Code:** 400 Bad Request

## Summarization Failed

### Response:

```
{  
  "detail": "Summarization failed: Unable to extract text from PDF file"  
}
```

**Status Code:** 500 Internal Server Error

## Missing API Key

### Response:

```
{  
  "detail": "Summarization failed: Google API key not configured"  
}
```

**Status Code:** 500 Internal Server Error

# Response Schema

## Successful Summarization Response

```
{
  "message": "string", // Success message
  "mode": "vector|multimodal", // Analysis mode used
  "summary_type": "comprehensive|brief|detailed", // Summary type used
  "filename": "string", // Name of summarized file
  "summary": "string", // Generated summary of the document
  "key_points": ["string"] // Array of key points extracted from the document
}
```

## Health Response

```
{
  "status": "string" // Status message
}
```

## Error Response

```
{
  "detail": "string" // Error message
}
```

## Validation Error Response

```
{
  "detail": [
    {
      "type": "string", // Error type
      "loc": ["array"], // Location of the error
      "msg": "string", // Error message
      "input": "any" // Input that caused the error
    }
  ]
}
```