# POSTAL PIN

# **API DOCUMENTATION**



#### **Disclaimer and Notice**

This documentation is prepared and published just for sample documentation work. It does not resemble any factual data and hence, this should not be used for any real-life implications.

Postal PIN API is a proprietary property of India Post under the Ministry of Communication, Government of India. Usage and Rate limits of Postal PIN API is subject to change as per the discretion of the Government of India.

Using the Postal PIN API for unsolicited purposes is a criminal offence under Indian Penal Code (IPC).

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#### Postal PIN API Overview

Postal PIN API is a web service that provides you location data for your Banking, Logistics, and Supply chain application and helps in running your operations smoothly by leveraging the information of 19000 PIN codes across India.

Postal PIN API helps developers to fetch information about the location(s) by searching for the postal PIN code or the Post office branch location from your website or mobile application. The web service uses ReST API operations with parameters encoded into request URL and response encoded in JSON format. It is designed for easy integration with most of the coding languages and works across popular frameworks.

### **Creating a Tenant Account**

To use the Postal PIN API web service, you must <u>sign up for a tenant account</u> with the Postal PIN API and subscribe for desired web services and rate limits.

#### **Features and Rate Limits**

In this table the features and pricing of Postal PIN API are explained for different tenant group.

| Tenant type                 | Student | Developer | Startup | MSME   | Corporate |
|-----------------------------|---------|-----------|---------|--------|-----------|
| Rate<br>limits/per day      | 100     | 5000      | 10000   | 100000 | 1000000   |
| 24x7<br>Customer<br>support | No      | Yes       | Yes     | Yes    | Yes       |
| Price (INR)/<br>Month       | Free    | 600       | 1200    | 1500   | 2000      |

#### **Base URL**

Following base URL is to be used for this API.

https://api.postalpincode.in

#### **Authentication**

Postal PIN API uses the API\_key for authenticating paid services and it uses user authentication for free services.

Your API keys carry many privileges, so be sure to keep them safe! Do not share your secret API keys in publicly accessible areas such as GitHub, client-side code, and so forth.

Authentication to the API is performed via HTTP Basic Auth. Provide your API key as the basic auth user name value. You do not need to provide a password.

# **HTTPS Status Codes**

HTTPS codes and their summary is explained in the following table for quick reference.

| Code                 | Description   |
|----------------------|---|
| 200 - OK             | Success response.   |
| 400 - Bad Request    | Missing parameter in request.   |
| 401 - Unauthorized   | No valid API key provided.  |
| 402 - Request Failed | The parameters were valid, but the request failed.                                  |
| 403 - Forbidden      | The API key doesn't have permission to perform the request.                         |
| 404 - Not Found      | The requested resource doesn't exist.   |
| 409 - Conflict       | The request conflicts with another request (perhaps due to using the same API key). |
| 429 - Too Many       | Too many requests hit the API too quickly. We recommend                             |
| Requests             | an exponential reduction in your requests.  |
| 500, 502, 503, 504 - | Server Errors   |
| Server Errors        |   |

# **Error Types**

The following table describes the common error and its summary for developers' reference.

| Error Type            | Description   |
|-----------------------|---|
| api_error             | API errors cover any other type of problem (for       |
|                       | example, temporary problem with Postal PIN servers),  |
|                       | and these are extremely rare.                         |
| invalid_request_error | Invalid request errors arise when your request has    |
|                       | invalid parameters.                                   |
| No records found      | You entered Invalid PIN code or location. Also, there |
|                       | could be no history of post office location in that   |
|                       | location.   |

#### **Handling Errors**

Our client libraries raise exceptions for many reasons, such as a failed charge, invalid parameters, authentication errors, and network unavailability. We recommend writing code that gracefully handles all possible API exceptions.

#### **API Functions**

Currently, Postal PIN API is used for performing following operations:

- 1. To fetch post office details by using postal PIN code.
- 2. To fetch post office details by using the post office branch name.

# **Get Post Office(s) Details by Searching with Postal PIN Code**

With the help of this API function, developers can use PIN code(s) and find the post office(s) mapped to the PIN code.

# Sample Request

Following table consists of the sample request method and the end point of the API.

| Request Method | Endpoint                                    |
|----------------|---|
| GET            | https://api.postalpincode.in/pincode/500001 |

#### Code Snippet (cURL)

You can use the request in cURL format if using any CLI interface.

curl --location --request GET 'https://api.postalpincode.in/pincode/500001'

#### Request Components

The following table describes the request components and their properties.

| Request components | Attributes                            | Description               |
|--------------------|---------------------------------------|---------------------------|
| HTTP method        | GET                                   | Used to fetch the data    |
|                    |                                       | from the database.        |
| Resource           | /pincode/                             | It is the repository that |
|                    |                                       | contains static data of   |
|                    |                                       | the task.                 |
| - I aponic         | https://api.postalpincode.in/pincode/ | It is a URL used to       |
|                    | {PINCODE}                             | perform an action.        |

#### Request Parameters and Attributes

The following table describes the request parameters and their attributes.

| Request Parameters | Attributes   |
|--------------------|--------------|
| Search Parameter   | {PINCODE}    |
| Parameter type     | Numerical    |
| Parameter priority | Mandatory    |
| API_key            | Your API Key |

# Sample Response (JSON)

The response of the above request is given below for reference.

```
{
    "Message": "Number of pincode(s) found:5",
    "Status": "Success",
    "PostOffice": [
            "Name": "Gandhi Bhawan (Hyderabad)",
            "Description": null,
            "BranchType": "Sub Post Office",
            "DeliveryStatus": "Non-Delivery",
            "Circle": "Andhra Pradesh",
            "District": "Hyderabad",
            "Division": "Hyderabad City",
            "Region": "Hyderabad City",
            "Block": "Nampally",
            "State": "Telangana",
            "Country": "India",
            "Pincode": "500001"
        },
            "Name": "Hyderabad ",
            "Description": null,
            "BranchType": "Head Post Office",
```

```
"DeliveryStatus": "Delivery",
            "Circle": "Andhra Pradesh",
            "District": "Hyderabad",
            "Division": "Hyderabad GPO",
            "Region": "Hyderabad City",
            "Block": "Hyderabad",
            "State": "Telangana",
            "Country": "India",
            "Pincode": "500001"
        },
            "Name": "Moazzampura",
            "Description": null,
            "BranchType": "Sub Post Office",
            "DeliveryStatus": "Non-Delivery",
            "Circle": "Andhra Pradesh",
            "District": "Hyderabad",
            "Division": "Hyderabad City",
            "Region": "Hyderabad City",
            "Block": "Nampally",
            "State": "Telangana",
            "Country": "India",
            "Pincode": "500001"
        },
            "Name": "Seetharampet",
            "Description": null,
            "BranchType": "Sub Post Office",
            "DeliveryStatus": "Non-Delivery",
            "Circle": "Andhra Pradesh",
            "District": "Hyderabad",
            "Division": "Hyderabad City",
            "Region": "Hyderabad City",
            "Block": "Nampally",
            "State": "Telangana",
            "Country": "India",
            "Pincode": "500001"
        } ,
            "Name": "State Bank Of Hyderabad",
            "Description": null,
            "BranchType": "Sub Post Office",
            "DeliveryStatus": "Non-Delivery",
            "Circle": "Andhra Pradesh",
            "District": "Hyderabad",
            "Division": "Hyderabad City",
            "Region": "Hyderabad City",
            "Block": "Nampally",
            "State": "Telangana",
            "Country": "India",
            "Pincode": "500001"
        }
   ]
}
```

# Response Parameters and Description

The following table describes the response values and their description.

| Response Value   | Description   | Example                    |
|------------------|---|----------------------------|
| Message          | Indicates total number of results available for a query.  | Number of pincode(s) found |
| Status           | Indicates success or issues in  | Success                    |
|                  | fetching the results.   | or <sup>Error</sup>        |
| Primary Element  | Indicates whether post office exists in this location.  | PostOffice                 |
| Sub Element      | Sub-component of result, like address details   |                            |
| - Name           | Name of the location, tagged to this PIN code in alphabetical sequence.   | Hyderabad                  |
| - Description    | Description of the location.  | null                       |
| - BranchType     | Indicates whether the post office branch at the given location is a head post office, branch Post office, or sub-post office. | Head Post Office           |
| - DeliveryStatus | Indicates whether the post office delivers mails or parcels to their customers.   | Delivery                   |
| - Circle         | Postal circle mapped to the post office.  | Andhra Pradesh             |
| - District       | Sub-circle or the district mapped to the post office.   | Hyderabad                  |
| - Division       | Authorized post office mapped to the resultant post office.   | Hyderabad GPO              |
| - Region         | Region where the post office exists.  | Hyderabad City             |
| - Block          | Block area where the post office exists.  | Hyderabad                  |
| - State          | State where the post office exists.   | Telangana                  |
| - Country        | Country where the post office exists.   | India                      |
| - Pincode        | The queried PIN code and also the PIN code mapped to the post office.   | 500001                     |

# **Get Post Office(s) Details by Searching with Post Office Branch Name**

With the help of this API function, developers can use branch locations and find the nearest available post office(s).

#### Sample Request

Following table consists of the sample request method and the end point of the API.

| Request Method | Endpoint   |
|----------------|--|
| GET            | https://api.postalpincode.in/postoffice/secunderabad |

#### Code Snippet (cURL)

You can use the request in cURL format if using any CLI interface.

```
curl curl --location --request GET
'https://api.postalpincode.in/postoffice/secunderabad'
```

### **Request Components**

The following table describes the request components and their properties.

| Request components | Attributes                           | Description               |
|--------------------|--------------------------------------|---------------------------|
| HTTP method        | GET                                  | Used to fetch the data    |
|                    |                                      | from the database.        |
| Resource           | /postoffice/                         | It is the repository that |
|                    |                                      | contains static data of   |
|                    |                                      | the request.              |
| Endpoint           | https://api.postalpincode.in/postoff | It is a URL used to       |
|                    | <u>ice/</u> {Branch location}        | perform an action.        |

# Request Parameters and Attributes

The following table describes the request parameters and their attributes.

| <b>Request Parameters</b> | Attributes        |
|---------------------------|-------------------|
| Search Parameter          | {Branch Location} |
| Parameter type            | Text              |
| Parameter priority        | Mandatory         |
| API_key                   | Your API Key      |

# Sample Response (JSON)

The response of the above request is given below for reference.

# Response Parameters and Description

The following table describes the response values and their description.

| Response Values  | Description                  | Example                        |
|------------------|------------------------------|--------------------------------|
| Message          | Indicates total number of    | Number of Post office(s) found |
|                  | results available for a      |                                |
|                  | query.                       |                                |
| Status           | Indicates success or issues  | Success                        |
|                  | in fetching the results.     | or <sup>Error</sup> .          |
| Primary Element  | Whether the post office      | PostOffice                     |
|                  | exists in this location.     |                                |
| Sub Element      | Sub-component of result,     |                                |
|                  | like address details         |                                |
| - Name           | Name of the location,        | Aarambagh                      |
|                  | tagged to this PIN code in   |                                |
|                  | alphabetical sequence.       |                                |
| - Description    | Description of the location. | null                           |
| - BranchType     | Indicates whether the post   | Head Post Office               |
|                  | office branch at the given   |                                |
|                  | location is a head post      |                                |
|                  | office, branch post office,  |                                |
|                  | or sub-post office.          |                                |
| - DeliveryStatus | Indicates whether the post   | Delivery                       |
|                  | office delivers mails or     |                                |
|                  | parcels to their customers.  |                                |
| - Circle         | Postal circle mapped to the  | Andhra Pradesh                 |
|                  | post office.                 |                                |

| Response Values | Description                 | Example        |
|-----------------|-----------------------------|----------------|
| - District      | Sub-circle or the district  | Hyderabad      |
|                 | mapped to the post office.  |                |
| - Division      | Authorized post office      | Secunderabad   |
|                 | mapped to the resultant     |                |
|                 | post office.                |                |
| - Region        | Region where the post       | Hyderabad City |
|                 | office exists.              |                |
| - Block         | Block area where the post   | Hyderabad      |
|                 | office exists.              |                |
| - State         | State where the post office | Telangana      |
|                 | exists.                     |                |
| - Country       | Country where the post      | India          |
|                 | office exists.              |                |
| - Pincode       | The queried PIN code and    | 500003         |
|                 | also the PIN code mapped    |                |
|                 | to the post office.         |                |

# Resources

For more information, <u>click</u>.