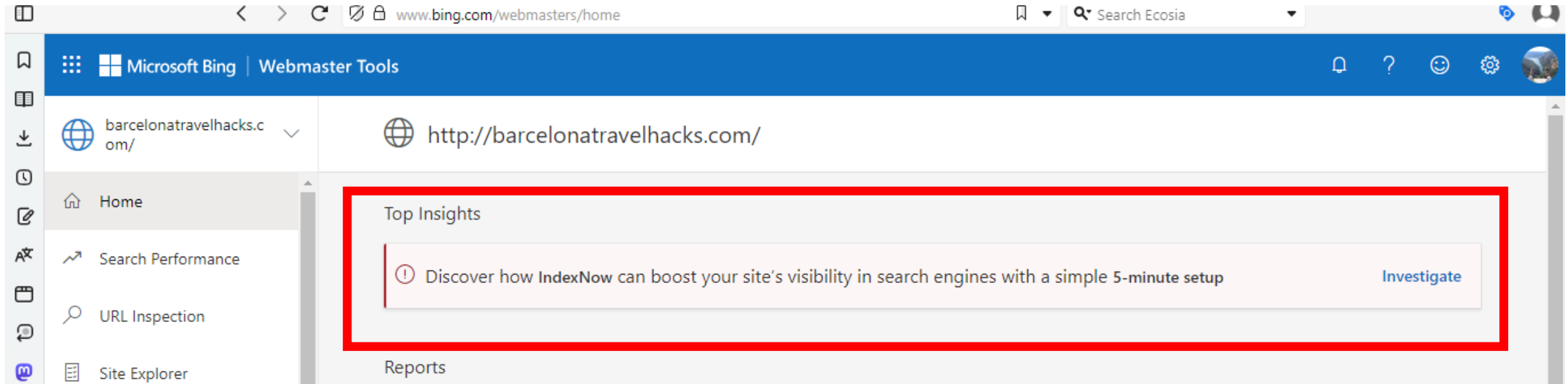




Designing and implementing a simple POST request to index NOW API to control website page indexing

Problem



Bing Webmaster tools is suggesting that I implement Index Now

Research



1 Generate API Key

An API key is needed to match the ownership of the domain with submitted URLs.

a09e7b86aff04c1f990277e06a5a9f52



Generate

3 Submit URLs

Submit individual or bulk URLs with your key location as your URL parameter: [Send one URL via an HTTP request](#)

Submitting a set of URL via an HTTP request

2 Host your API key

Host your UTF-8 key file at the root of your website:

<https://www.example.com/a09e7b86aff04c1f990277e06a5a9f52.txt>

with the key **a09e7b86aff04c1f990277e06a5a9f52** in the content of the text file.

1. Read the API idiot Guide

2. Have the API full documentation to hand

<https://www.indexnow.org/documentation>

Understand the API request



Request

POST /IndexNow HTTP/1.1

Content-Type: application/json; charset=utf-8

Host: api.indexnow.org

Header

```
{
  "host": "www.example.org",
  "key": "a09e7b86aff04c1f990277e06a5a9f52",
  "keyLocation": "https://www.example.org/a09e7b86aff04c1f990277e06a5a9f52",
  "urlList": [
    "https://www.example.org/url1",
    "https://www.example.org/folder/url2",
    "https://www.example.org/url3"
  ]
}
```

JSON object

Body

Response

**HTTP
Code**

Response

**Reasons
And the desired result**

200	Ok	URL submitted successfully
400	Bad request	Invalid format
403	Forbidden	In case of key not valid (e.g. key not found, file found but key not in the file)
422	Unprocessable Entity	In case of URLs don't belong to the host or the key is not matching the schema in the protocol
429	Too Many Requests	Too Many Requests (potential Spam)

Test Understanding of API



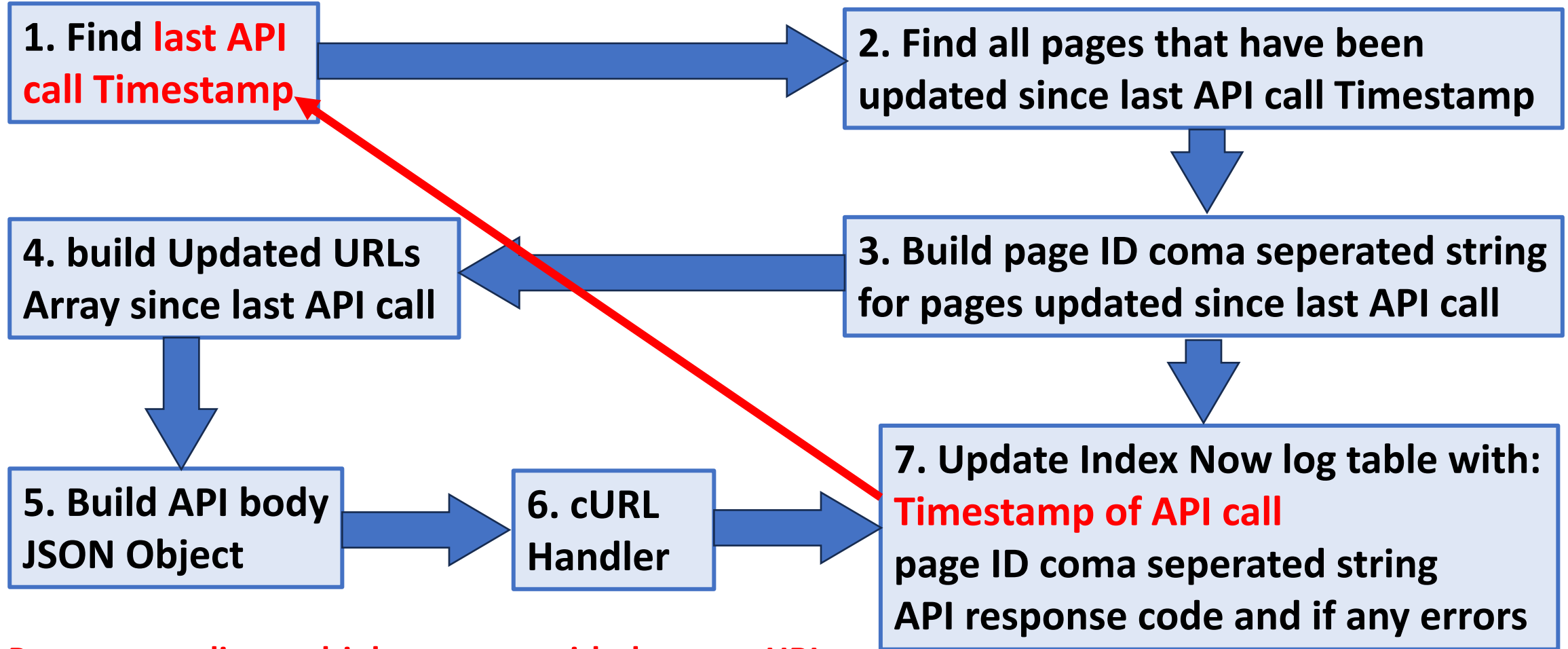
The screenshot displays the Postman interface with a POST request to `https://api.indexnow.org/IndexNow`. The **Method & Endpoint** section is highlighted with a red box. The **Body type** is set to **JSON**, also highlighted with a red box. The **Body object** is a JSON payload, highlighted with a red box:

```
1 {
2   "host": "www.barcelonatravelhacks.com",
3   "key": "XXXXXXXXXXXXXXXXXXXX",
4   "keyLocation": "https://www.barcelonatravelhacks.com/XXXXXXXXXXXX.txt",
5   "urlList": [
6     "https://www.barcelonatravelhacks.com/"
7   ]
8 }
```

The **Status: 200 OK** is highlighted with a red box. The response is shown in the **Body** tab, which is currently empty.

Here I use Postman to make a POST call to the API with a sample body object and verify that I get a 200 response. Why postman? It's a quick and simple to use testing tool.

High Level Script Design



Prevents sending multiple requests with the same URLs

OP#1: last API Call Timestamp



IndexNow

Id (AI)

APIRequest (*DateTime*)

Pages (*Coma Seperated String*)

Response (*string*)

Error (*string*)

```
SELECT APIRequest
FROM indexNow
ORDER BY APIRequest DESC
LIMIT 1";
```

OP#2. Find Updated pages since last API Call



```
SELECT metadata.pageId,  
        URLHandler.urlparam0,  
        URLHandler.urlparam1,  
        URLHandler.urlparam2,  
        metadata.pageUpdated  
FROM metadata  
JOIN URLHandler ON URLHandler.pageId = metadata.pageId  
WHERE metadata.noIndexTag = 0  
AND metadata.pageUpdated >= :lastApiRequestDateTime
```



Metadata
PageUpdated
(DateTime)



**URL
Handler**
URL params
Index? (Bool)

Takes a dateTime String from the results of Op #1

OP#3. Build page ID coma seperated string for pages updated since last API call



```
$pageIdStr = "";  
foreach ($arr as $url) {  
    $pageId = $url['pageId'];  
    $pageIdStr .=  
"$pageId" . ",";  
}
```

OP#4. Build Updated URLs Array since last API Call



```
$urlList = [];  
foreach ($arr as $url) {  
    $urlparam0 = $url['urlparam0'];  
    $urlparam1 = $url['urlparam1'];  
    $urlparam2 = $url['urlparam2'];  
    $url =  
rtrim("https://www.barcelonatravelhacks.co  
m/$urlparam0/$urlparam1/$urlparam2", "/");  
    array_push($urlList, $url);  
}
```

OP#5. Build API JSON Body



```
$data = [  
    'host' => 'www.barcelonatravelhacks.com',  
    'key' => 'xxxxxxxxxxxxx',  
    'keyLocation' =>  
    'https://www.barcelonatravelhacks.com/xxxxxxxxxxxxx.txt',  
    'urlList' => $urlList  
];
```

```
$json = json_encode($data, JSON_UNESCAPED_UNICODE);
```

OP#6. cURL Handler



```
$ch = curl_init();  
$requestUrl = "https://api.indexnow.org/IndexNow";  
$headers = [  
    'Content-Type:application/json; charset=utf-8',  
    'host: api.indexnow.org'  
];  
curl_setopt($ch, CURLOPT_URL, $requestUrl);  
curl_setopt($ch, CURLOPT_HTTPHEADER, $headers);  
curl_setopt($ch, CURLOPT_POST, 1);  
curl_setopt($ch, CURLOPT_POSTFIELDS, $json);  
curl_setopt($ch, CURLOPT_RETURNTRANSFER, true);  
curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, false);  
curl_setopt($ch, CURLOPT_HEADER, false);  
$res = curl_exec($ch);  
$err = curl_error($ch);  
$http_code = (int) curl_getinfo($ch, CURLINFO_HTTP_CODE);  
curl_close($ch);
```

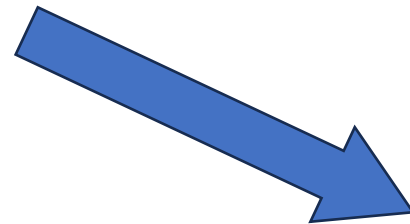
OP#7. Update IndexNow Log table



```
$newDate = new DateTime();  
$CurentDateTime = $newDate->format('Y-m-d H:i:s');  
$data = [$CurentDateTime, $pageIdStr, $http_code, $err];  
$placeholders = ['(?, ?, ?, ?)'];  
$sql = 'INSERT INTO indexNow (APIRequest, pageIDs,  
responseCode, error) VALUES ' . implode(',',  
$placeholders);  
$stmt = $dbh->prepare($sql);  
$stmt->execute($data);
```

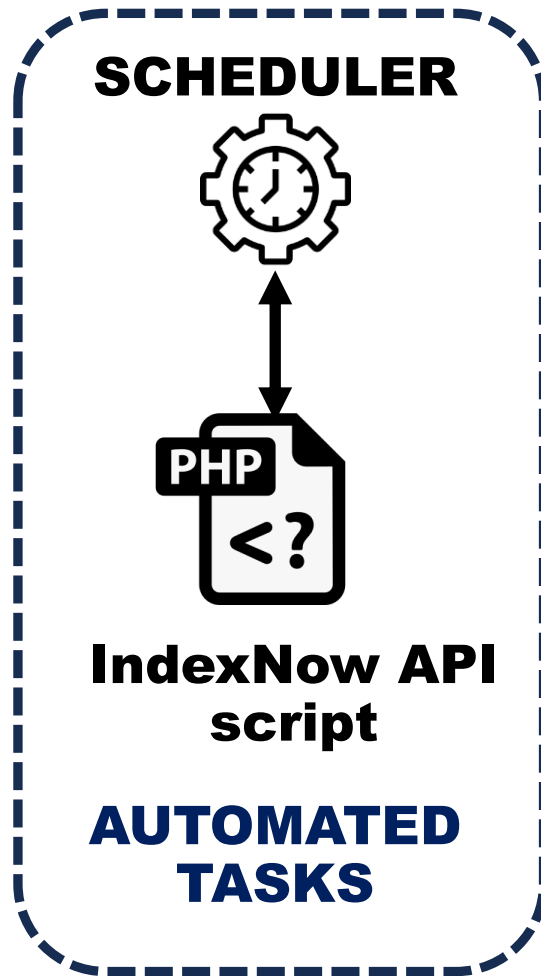


IndexNow



Id (AI)
APIRequest (*DateTime*)
Pages (*Coma Seperated String*)
Response (*string*)
Error (*string*)

Configure the scheduler



The scheduler will automatically trigger the API call to index Now daily passing any URLs that have been updated in the past 24 hours.

Verification of Index Now table



ID	APIRequest	PageIDs	responseCode	Error
1	2024-06-26 00:00:00			
2	2024-07-31 02:12:18	a0001,a0002,a0003...	200	

Note that the first entry has to be entered manually because there are no previous API calls so the code would bomb if the table was empty.

Verify In Bing webmaster tools



Microsoft Bing | Webmaster Tools

barcelonatravelhacks.com/

Home

Search Performance

URL Inspection

Site Explorer

Sitemaps

IndexNow

Backlinks

Keyword Research

Top Insights

IndexNow

URLs submitted in last 3 hours ⓘ

2.1K

Sources

Self

Submitted Urls list(shows latest 1000 urls)

Export

URL	Submitted ↓	Source ⚙	Details
https://www.barcelonatravelhacks.com/barcelona/la-eixampla/la-sagrada-familia	Today at 04:12	Self	View
https://www.barcelonatravelhacks.com/barcelona/la-eixampla/recinte-modernista-sant-pau	Today at 04:12	Self	View
https://www.barcelonatravelhacks.com/barcelona/la-eixampla/avenida-antonio-gaudi	Today at 04:12	Self	View