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Hello everyone I welcome you all to this tutorial on scraping location id from the

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BBC weather website. So, before getting into the tutorial let me just give you a context on what

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exactly are we trying to do here. Right, so, if you go to the BBC weather website.

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So, there will be a search bar where you can type in any city name let's say I am

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this time typing Palo Alto and then it gives you suggestion once you click it.

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It should give you the weather report for the next 10 days for Palo Alto. So, what exactly

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happening is happening in the back end is when you type a string there is an API call that's being

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made and then for that particular string that you have typed it returns you a location id every set

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of latitude longitude is tagged to a location id. So, once you have the location id it's very easy

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for you to hit the database and pull the weather information for that particular location id.

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So, if we scrape this particular location id then we would be able to scrape the location,

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weather details of that location as well and that is exactly the purpose we are going to do. So, now

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let me again go to the home page of BBC weather. So, let's just see how what happens in the

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backend. So, if I right click and give inspect element be it chrome or in any browser you get a

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separate window where you can monitor and track a bunch of website interactions and activities

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that's happening in real time right. So, you can see this black window in the

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right side of my console. Now I am going here to this double arrow and clicking network.

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So, what happens when I click network is it shows you all the API calls that's being made in

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whatever interaction I am doing to the website. So, these are the calls that you can, now I am

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placing my cursor here and let's say I am typing a different city name this time Los Angeles.

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So, you can see here there's a call being made location API and if I double click it,

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let me zoom it. So, this is exactly the json or the API that is being responded to that

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search string or Los Angeles that I have typed, so if you see it has a

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key called id which is 5368361, name or actual name of the city, this country of the city,

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latitude, longitude and a bunch of other details. So, from this particular API

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what I am interested right now is just this particular id 53683 sits on.

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So, let's see how do we scrape this using python. So, now let me import the necessary libraries.

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So, I am putting requests to pull the API and json to convert it into a dictionary object

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and I am using a library called urlencode. So, if you see that particular very long URL of the

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API it might look bit ugly. So, we are going to give it some structure using urlencode.

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So, let me load all these libraries. So, now coming to the location URL, the API URL basically

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I am giving the test city as some city name let's say New York and the URL if you see, we go to this

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URL it has two parts the first part is kind of the prefix which is constant for any location. So,

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let me just show you that to you. So, if you see https and bbc.co.uk/location this is constant

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and then a bunch of key value argument paired, API key equal to, search string

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equal to which is your search string. And another thing equal to there are a bunch of

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arguments which are concatenated and it makes the URL a bit ugly. So, what we are going to do is

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we are going to give the constant static prefix and then use urlencode to construct the remaining

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part by just specifying key value pairs where s is the search string and whatever name you have

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typed and the remaining things you just pulled up, pull from the URL and give it here.

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So, now urlencode will create that particular long URL string for you and it makes your job and life

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very easy. And now I am going to pass this URL to request dot get and I am converting it to a json

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object. So, if you see the result which is printed yeah I just have a dictionary with response which

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has results in it inside results I do have what I need id 5128581. So, what I am going to do is I am

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going to pull the results key and in the response and inside results I am going to ask for the

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id and that's exactly what I am doing. And now I got my key which is 5128581

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now let me just put everything into a single nice function where you can just pass the city name

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as an argument and then the function returns you the location id. So, if you see the first

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step I am converting the city name into lowercase just in case I have to standardize if you because

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you can type in any case you want. And then I have copy pasted this location

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URL and then I have got the json and from the json I passed id and it is being returned. So,

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let's now quickly test this function by passing a new city name which is Toronto

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and "hola" you got it. right. 6167865 is the id. So, now you can use this id and then pull the

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weather information as well which you will see in the next part. But this is a tutorial

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on how you can pull or scrape id given a particular API call, thank you.