

GPS: TRACK THE ROUTE 03

Before we start plotting the routes let me go through this route dot csv file one more time and will see how we can pass this file using our csv library that i said in the last video, you know this route dot csv file has well need the coordinates in separated by commas it mean that first value is the latitude value and the second value separated by comma is the longitude value. The first step is to pass this data how to how to extract this information from this file in python? So let's see this. So i will create a new, new python file name gps dot py and i will import this csv library, you can read more about csv library on goggle, there is a nice documentation here you can read all the functions and the data provided by the library please have a look at it and i will be using very simple passing method to pass the csv file so let's see this. I will import the library first import csv ok, now my csv file name which i want to pass the name of the file is route dot csv so i will open that file with open route in commas route dot csv in green board because i don't have to write anything as f would say you can put here an variable name here ok after opening it i will use a reader function so i will create a variable name reader and i will use the csv reader function to pass this f, what what! What it does, it will create a iterator through this file ok so that i can iterate over it and i can read the values one by one as the list so, so now my reader variables has on the, on the data of the csv file i have been iterative so i can iterate over it so what will you do? I will iterate over it using the loop for let's say row in reader ok now row will give me row will contain list so each item of this list will be a value separated by comma so first will be the first value and second will be the second value after the comma third will be the third value after the comma like this in string so let me print this so what i will do? I will store the first value in lat that is equal to row of zero ok because zeroth element of this list contain the first value and long is equal to row of one because the first elements contains the second value that is the longitude i just print it print lat print long or i will just create a dummy print so that i get a new line character that's it let me run this, cool! so you can see all the latitude longitude values has been extracted and printed ok so suppose what i do i will try to sum up, let me print the some of the latitude longitude just in some so what i will do here in the last print statement i will print lat plus long ok it should print me the sum of this values so let me run this cool so you can see the sum of latitude longitude ok so here is the problem it's not exactly the sum what you are getting is a concatenation of two strings so as i said this, these are not the float values these are string values so what are you getting is the concatenation of the string values because the plus what in python if you do a plus in two strings it will concatenate the strings you are getting a concatenated value so in order to get the sum of this latitude longitude you have to change it you have to type cast that is we say type casting in c so it means you just change the string value into float value so for that you just need a function float and inside this so what it will do it will just change the string value into float now let's run this now if i run this now you can see i am getting this sum one not six point three four zero seven so now i know how to pass it a simple passing a head of this csv file this is all required for this for program. In next video you will see how, how to plot this latitude and longitude value.