Cloud Computing
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Lecture - 20
Demo on Google Cloud Platform (GCP)

Hello. So as we are discussing about Google cloud platform now we show you two example scenario, one for hosting a web app in a in a Google cloud platform another building a app in a web app in a Google plat platform. And with me Shreya is there, Shreya will demonstrate the thing on a hands on. So, it will be easy for many of you to just do the same exercise on yourself and have a feel of how things work, right. I will now hand over to Shreya at. So, that she can continue with initially hosting a web app in the Google cloud platform right. So, I will give you to give it to her.

Thank you, sir. So, first we will go to the Google cloud platform console.

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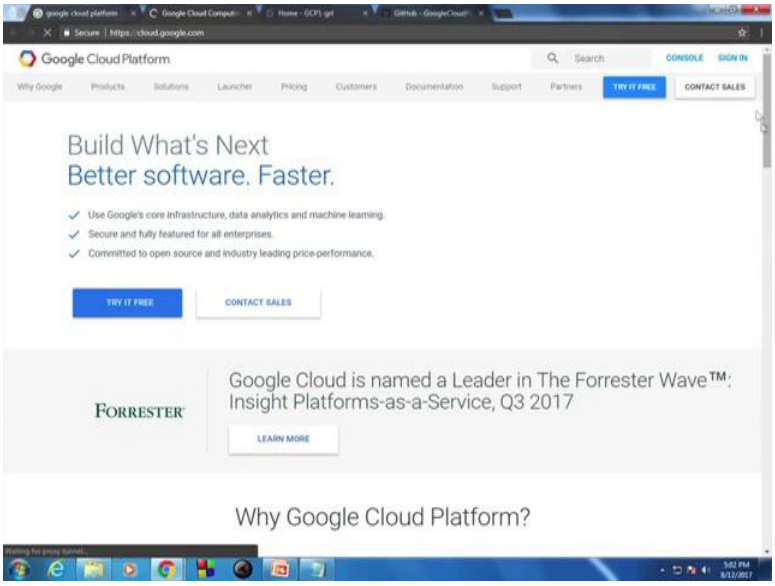

So, we need to login in the Google cloud platform to in order to host our web page. So, we will go to the console. And after login in the GCB account.

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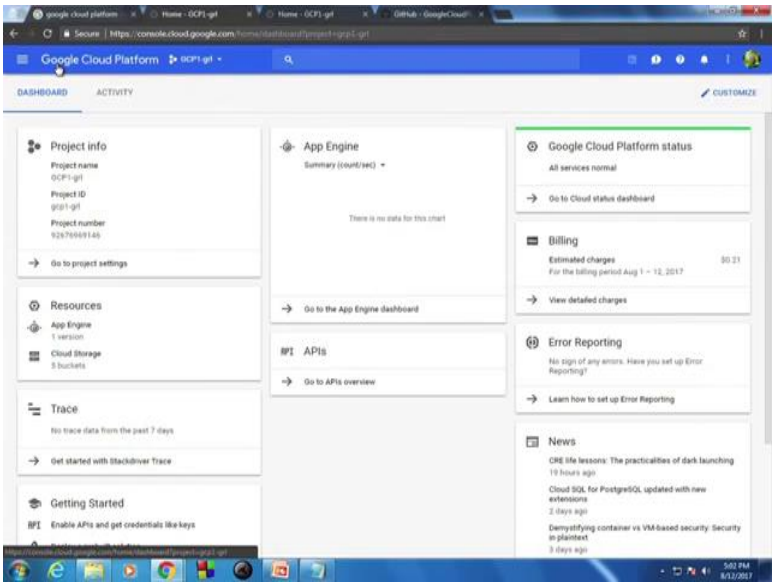

We will here we can show the project information if we have already created any projects. And all other resource information like app engine information or computing in engine information. And in order to host a static web page or website we need to create we need to configure the Google storage bucket. So, we will go to the storage option.

So, initially login to the console then create storage bucket right.

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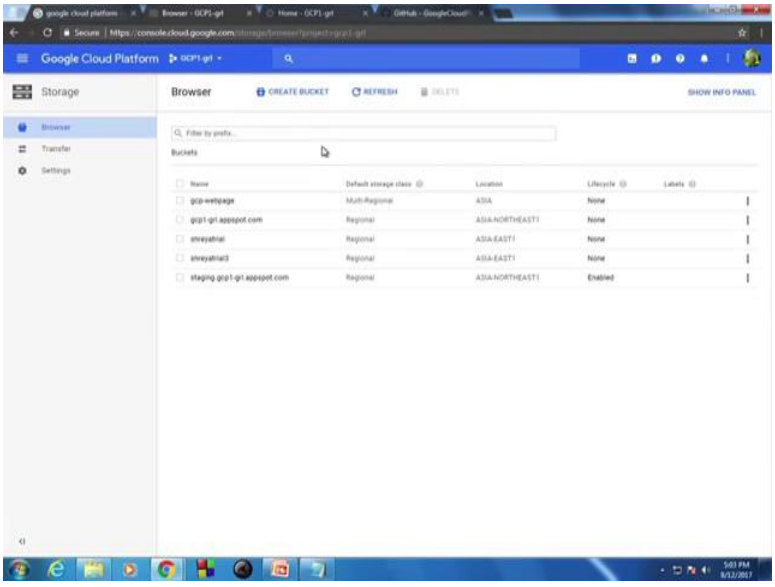

So, in the storage bucket under the browser tab we will see a some options like create bucket. So, I will now create a new storage bucket, so giving a name like NPTEL.

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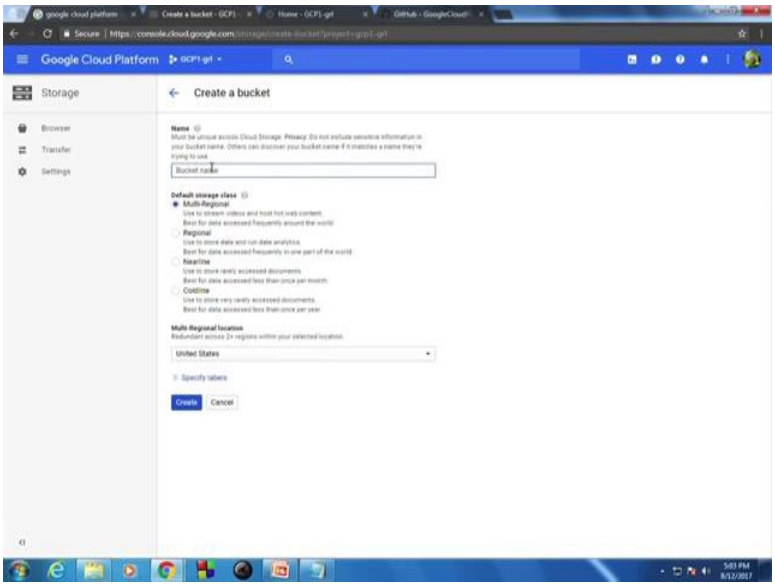

NPTL or Web page.

TCP web page.

Now, in NPTL you see something anyway you give.

Right.

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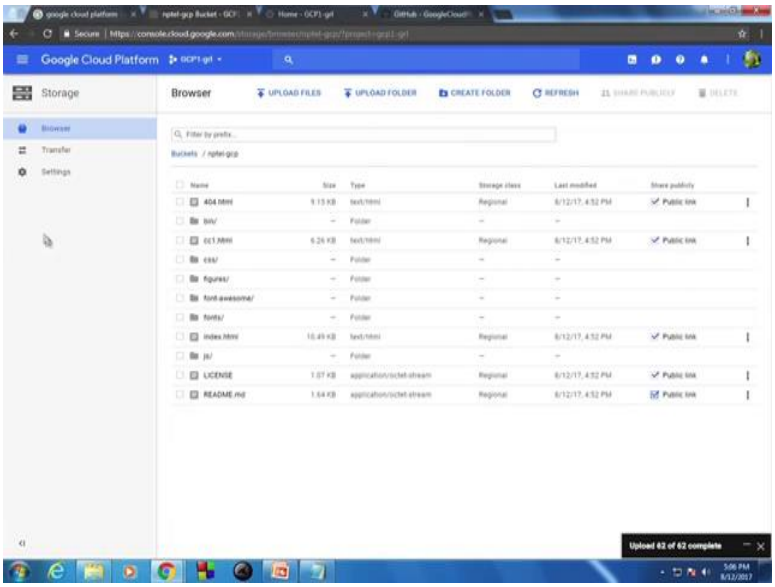

Then we will choose the storage class that is where this particular web app will reside. So, I am choosing here regional, and Asia East1 and creating the bucket. So, the bucket has been created, but there are no objects in the bucket. So now, we will upload the files or the content of the websites in this particular buckets sir.

So, you are having locally already in the desktop itself go next. So, you are already having that locally the files created which you want to host on Google, GCB.

So the individual files have been uploaded no I will upload the folders.

So, you have created a locally a site and then you are uploading now in the GCP. So, you want to host it on Google cloud platform.

Yes.

It is the first objective example is to host the thing into the Google cloud platform.

So, to host any website or any WebPages; there must be 2 files one is the 404 and not 4 0 4 not found file. And other is the main HTML file of the home page.

That index dot HTML.

Index dot HTML. So, all the files have been uploaded. Now we need to check whether the all the files are shared publicly or not. So, we should check the all the links here. And not only these files we need to check all the files inside this inside the folders also.

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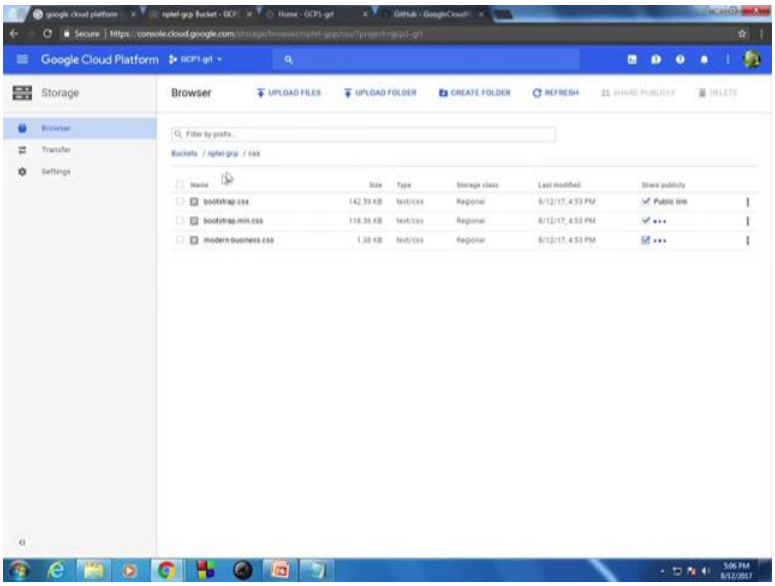

So, all the files are checked now. Now the web contents has been uploaded in the GCP. So, we need to go to the homepage of our website.

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So, just click the public link. So, from the URL you can see that this is the project name or the bucket name what we have created. And this is the homepage HTML file.

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And this particular side has been upload has been hosted from the storage dot googleapis dot com.

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So, you can a navigate to any other web page like cc1, HTML and all. Also the external links can external web pages can we linked from this website as well.

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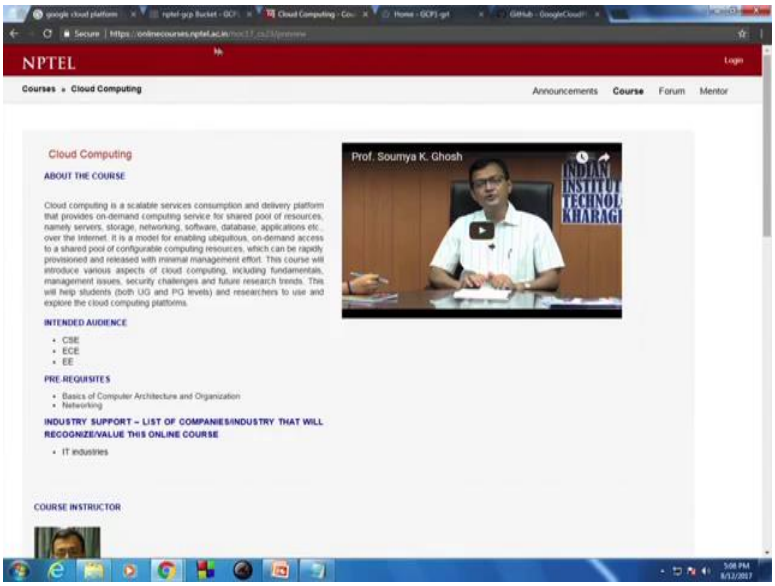

So, this is a hosting part.

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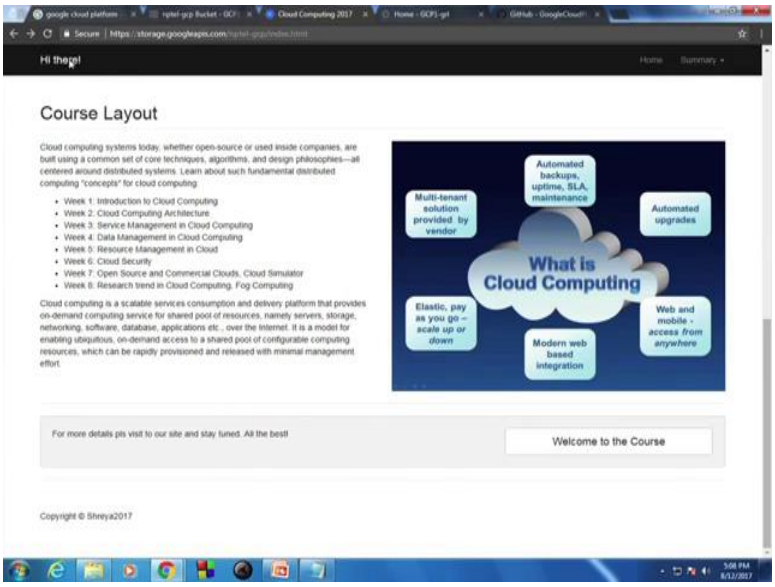

Hosting part: so hosting is pretty straight forward. So, you need to have a login and followed by that locally create the file, upload the file.

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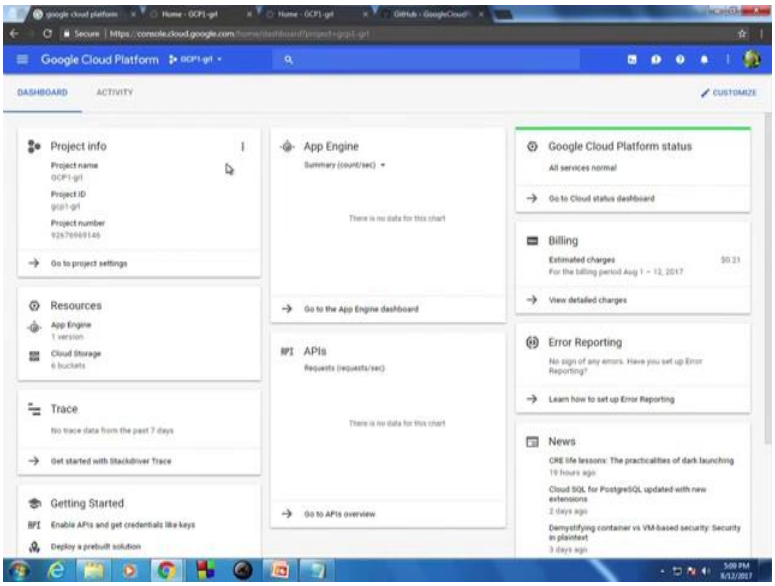

And that is that is it that is hosted. So, it is primarily using the storage of the use of Google that is mostly the storage services, and you have to enable that public accessibility to the files wherever you are required to you. So, the next example what we will be showing is building app within that Google app engine right.

So, using Google app engine services, ok.

Sir, so.

So, what this app will do?

This is a simple web application that will just print a message in the web page.

Ok.

So, build a python app we need to create a new project from the Google cloud perform dashboard. So, I create a new project here.

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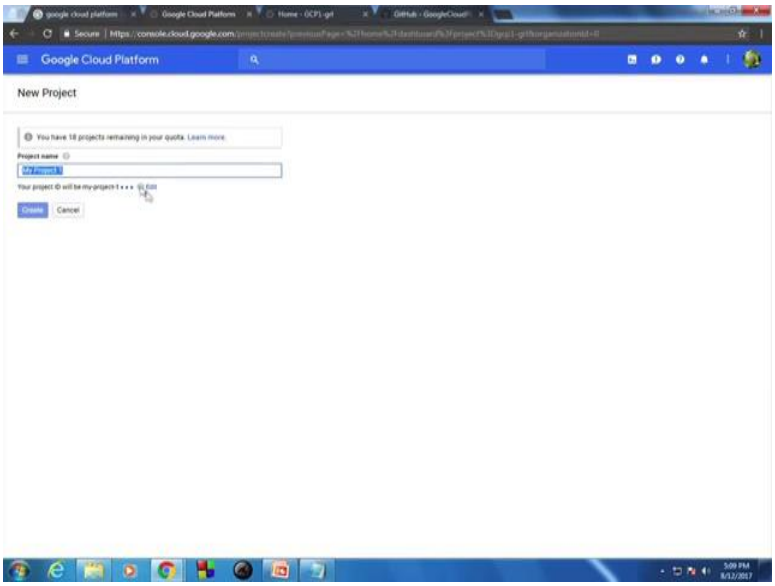

Python app.

So, here we can see the one globally unique identifier will be created. So now, the python app have the project has been created. So, I will go to the project. So, information about the project will be listed here, now I will activate tar Google cloud shell.

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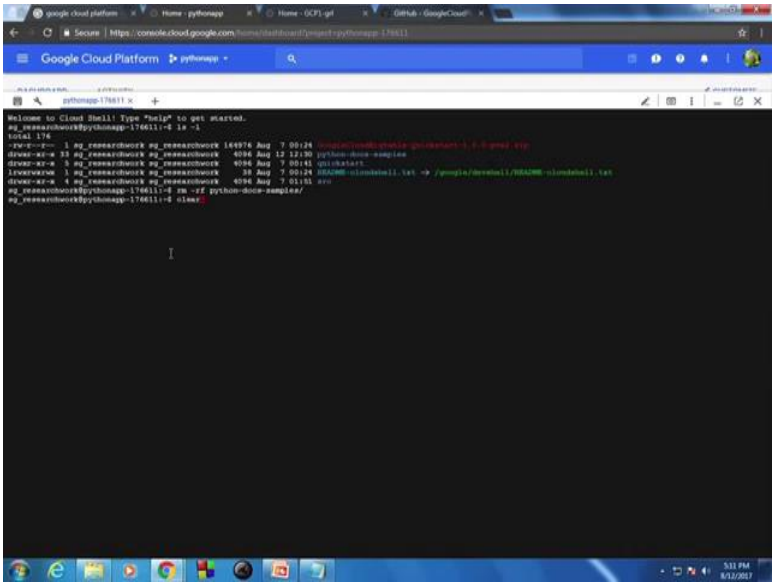

So, basically it works like any terminal in a Linux machine. So, command prompt has come. So, we can execute any command here.

Executing.

Yeah.

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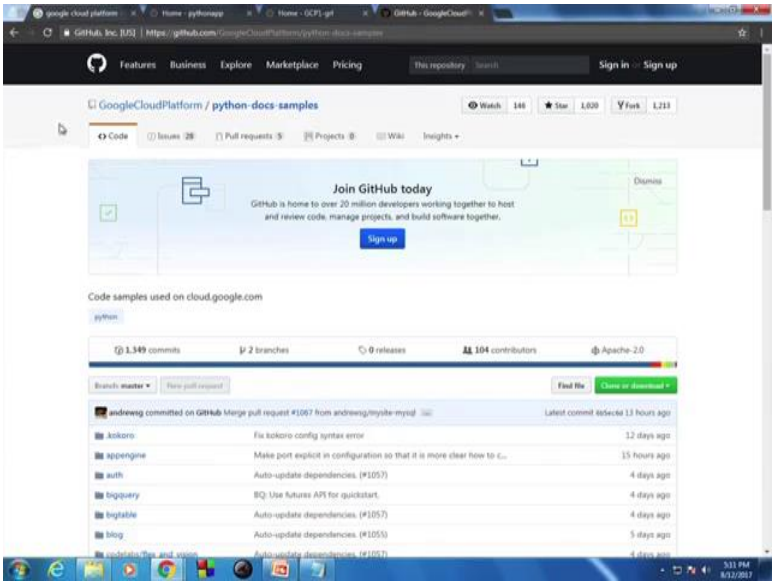

So, now I will clone or download the Google one example application, from this GIT hub repository. So, here you can see in here are a number of application has been listed.

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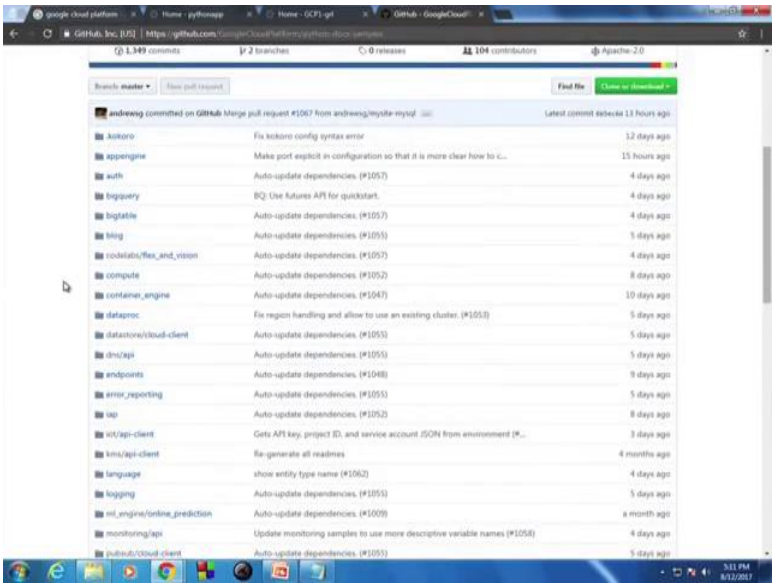

So, we can just download one or fetch the information, and then can create on your own. So, I will face all the application in my Google cloud shell machine. So, the cloning has

been completed. So that means, the all the all the contents from this repository has been downloaded in my local Google cloud shell machine.

So, I will navigate to the directory. So, here 2 main files are there one is the appear mail that is the configuration file of the application.

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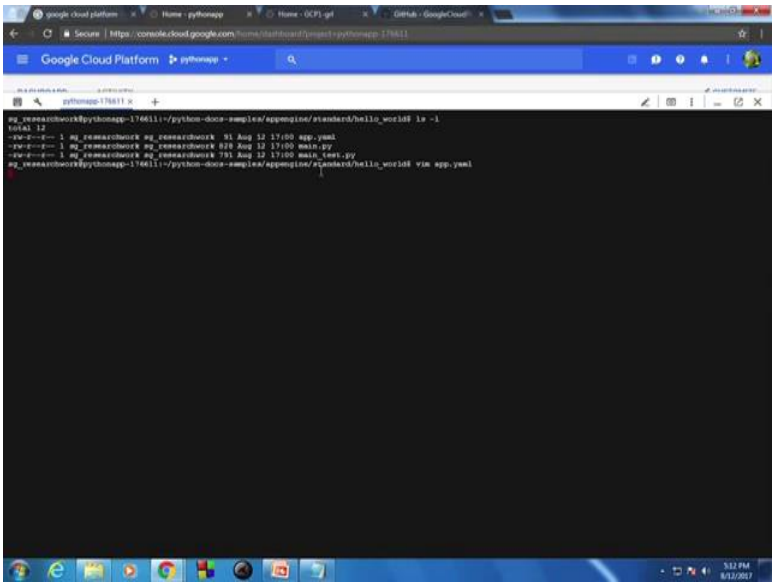

Another is the main python file. So, if you open the files. So, this is the main configuration files it tells that the run time required for this application is python 2 7 environment.

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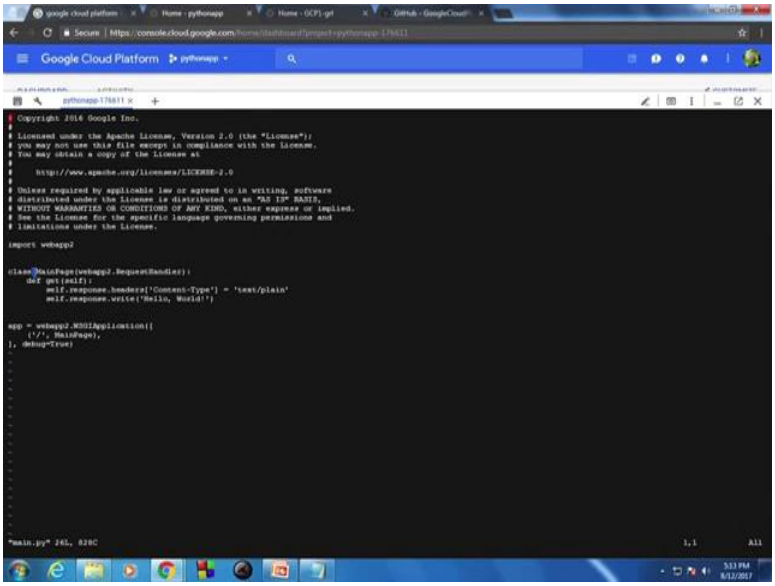

And this is a traits application that mean this particular application can handle a number of simultaneous request from any URL's. And any URL that matches with this regular expression can be will be handled by the main app file. And in the main dot py file it is a develop on the flux web development frame. So, in the class file you can see a simple message hello world has been written.

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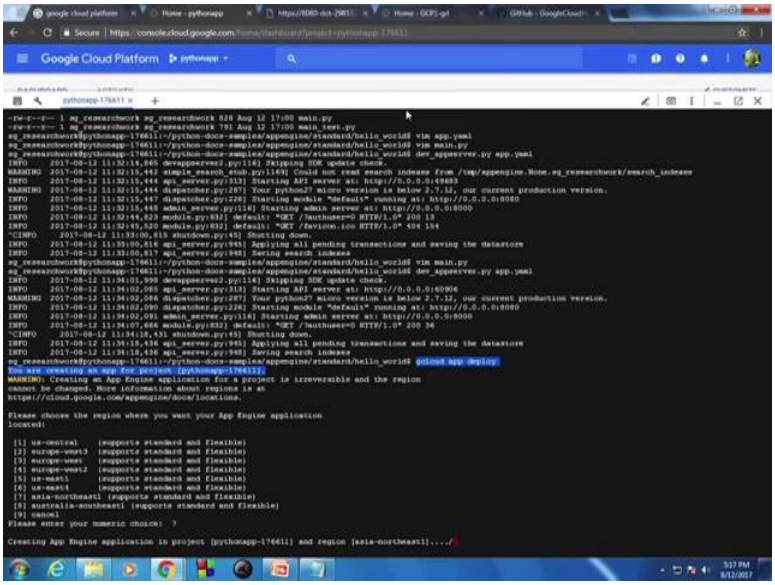

So, that you can change also, right. Hello, hello.

Yes that can change.

Yeah, change it.

So now, I will start the development server. So, it is it the development server has been started in this particular link. So, if you go to the web preview. You can see that is the hello word message has been printed here. And at any time you can also shut down this development server.

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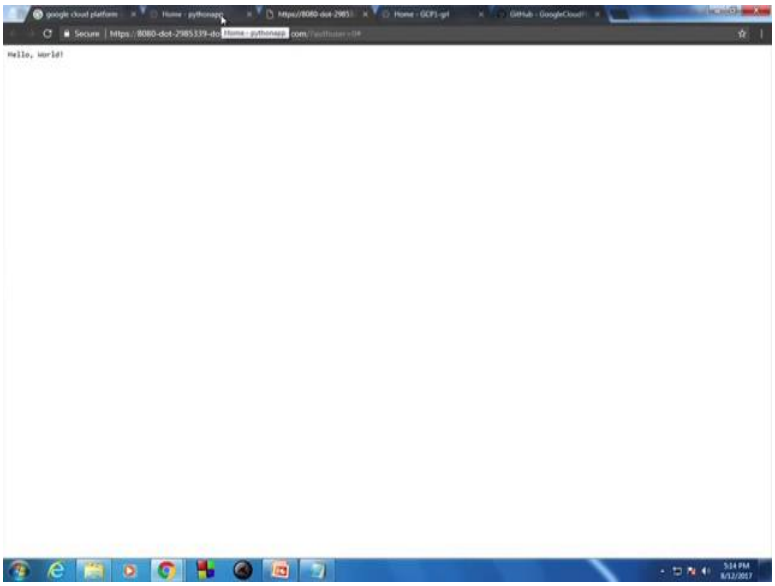

Then it will show some connection error because the cloud shell has shut down the particular server there. So now, I will change the application.

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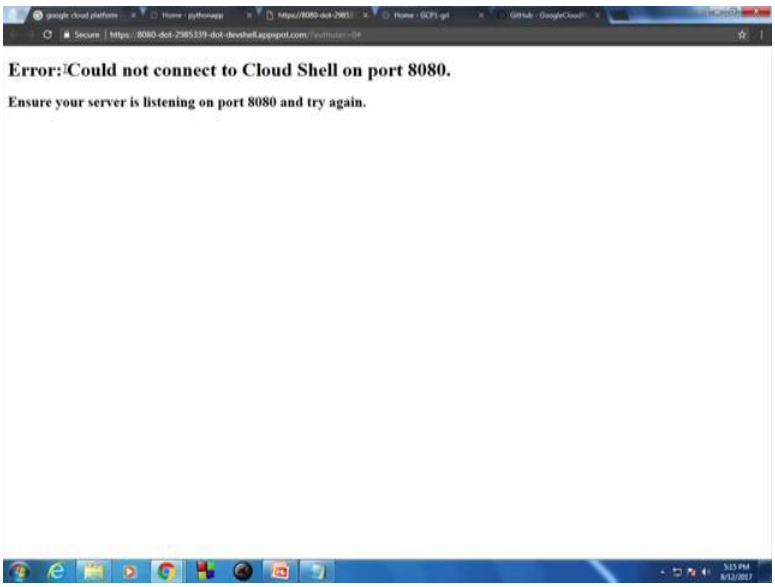

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Now again we need to start the development server here and we just check it.

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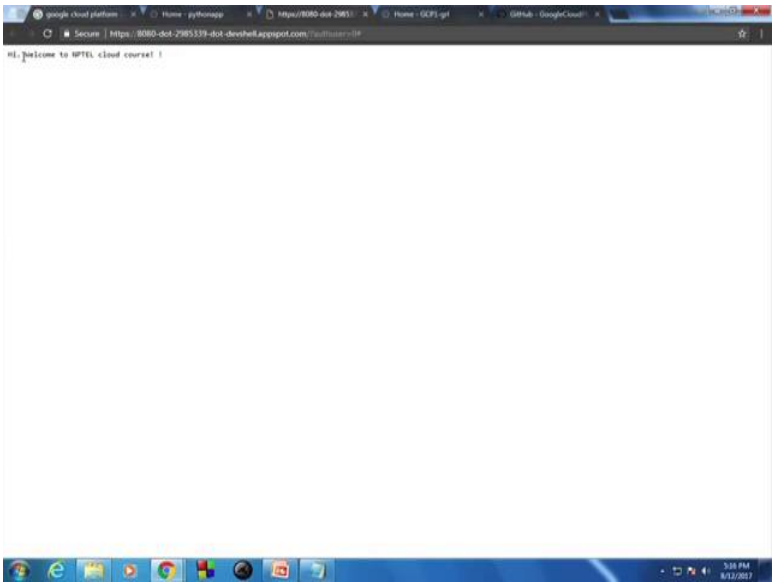

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So, the message has been changed here. So, till now we are developing in a local development server, but the files are not yet uploaded in the Google app engine. So now, we will deploy once we have done with the deployment and modification and all. We need to deploy the application in the Google app engine. So, we will run the command gcloud app deploy. And then it will then ask for the location where I want my app engine will be located. So, I am giving it 7.

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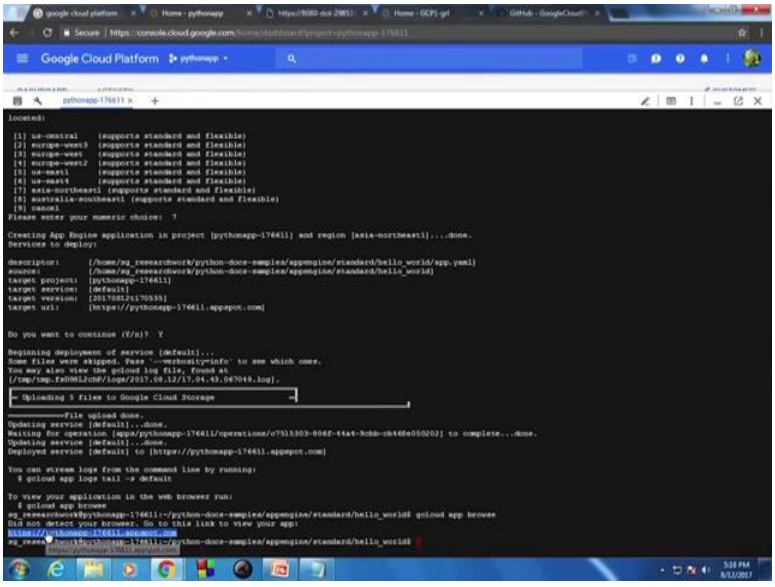

So now the files are being uploaded in the Google cloud storage, and now that deployment has been completed. So, we can view our application by using gcloud app brows and it will give me the URL. So, from the URL you can see that this is the unique identifier of our project. And the particular application has been launched from Google app engine. And we can exit normally and after the project has been deployed. We also can shut down the project.

So, shut down it will basically close that, close.

Tell if we open the same project later?

Yeah, So, it is basically clearing of the thing.

So, as you see that we what Shreya demonstrated to simple example scenario in goggle cloud platform. So, the example other rather than the example the procedure is more important so that you can try out from simple to complex things. So, one of the example was locally developed a web app is see uploaded in the Google cloud platform and which can be accessible rather from it other from anywhere and the next app is basically next what she did is build a Google a web app using Google app engine.

So, you can build your own app on the things. So, this is related to web app you can develop other applications it is with those. And there are if you look at there are several services which are provided by Google for that matter any commands in cloud or any cloud if you use there are the different services which can one can leverage on to develop different webs. So, so that over all what we tried to show that how a thing works so what I try you can try this out and see that how this sort of clouds cloud works, and what is what is operational aspects of the cloud from the user perspective.

Thank you.