# How to implement React in Django Project Documentation:

Step 1: Firstly, Open two command prompt: one for react and another for django projec.

In command prompt of React:

* npx create-react-app my-app
* npm init react-app my-app
* yarn create react-app my-app

To create react project.

Step 2:

You have to copy react project to django project.

Open command by file location of react project inside of django project.

Example: C:\Windows\System32\cmd.exe replace it with cmd and enter.

In command prompt type:

npm run build

Step 3: In Django Project:

In settings.py:

Import os

'DIRS': [

            os.path.join(BASE\_DIR,'templates'),

            os.path.join(BASE\_DIR,'my-app/build'),

            ],

Default urls.py:

from django.views.generic import TemplateView

 path('',TemplateView.as\_view(template\_name='index.html')),

Again In settings.py:

STATICFILES\_DIRS = [

    os.path.join(BASE\_DIR,'my-app/build/static')

    ]

Try to run server in command prompt:

: python manage.py runserver

In app.js of React project to make changes:

import React from 'react';

import logo from './logo.svg';

import './App.css';

function App() {

  return (

    <div className="App">

     <h1>HELLO APP</h1>

    </div>

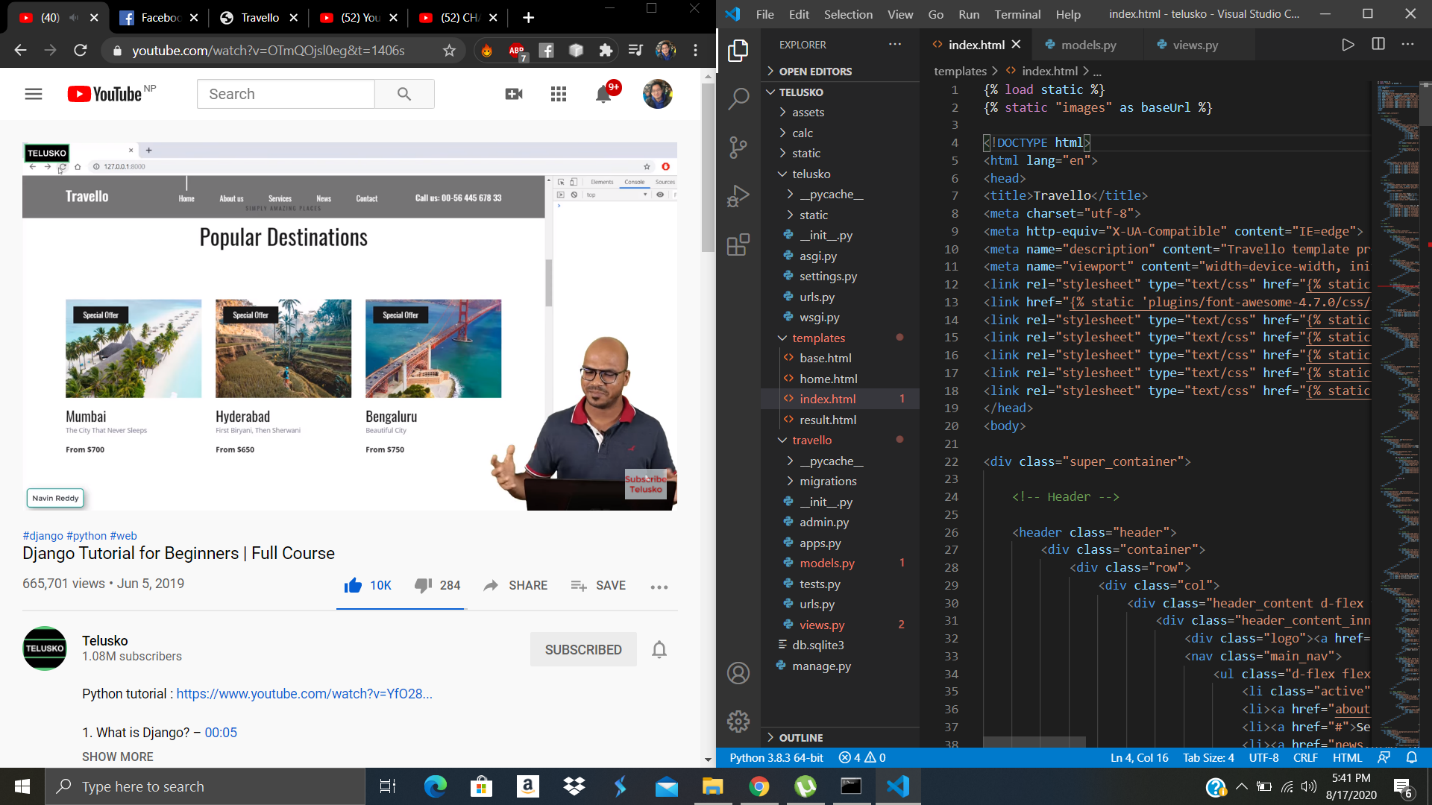
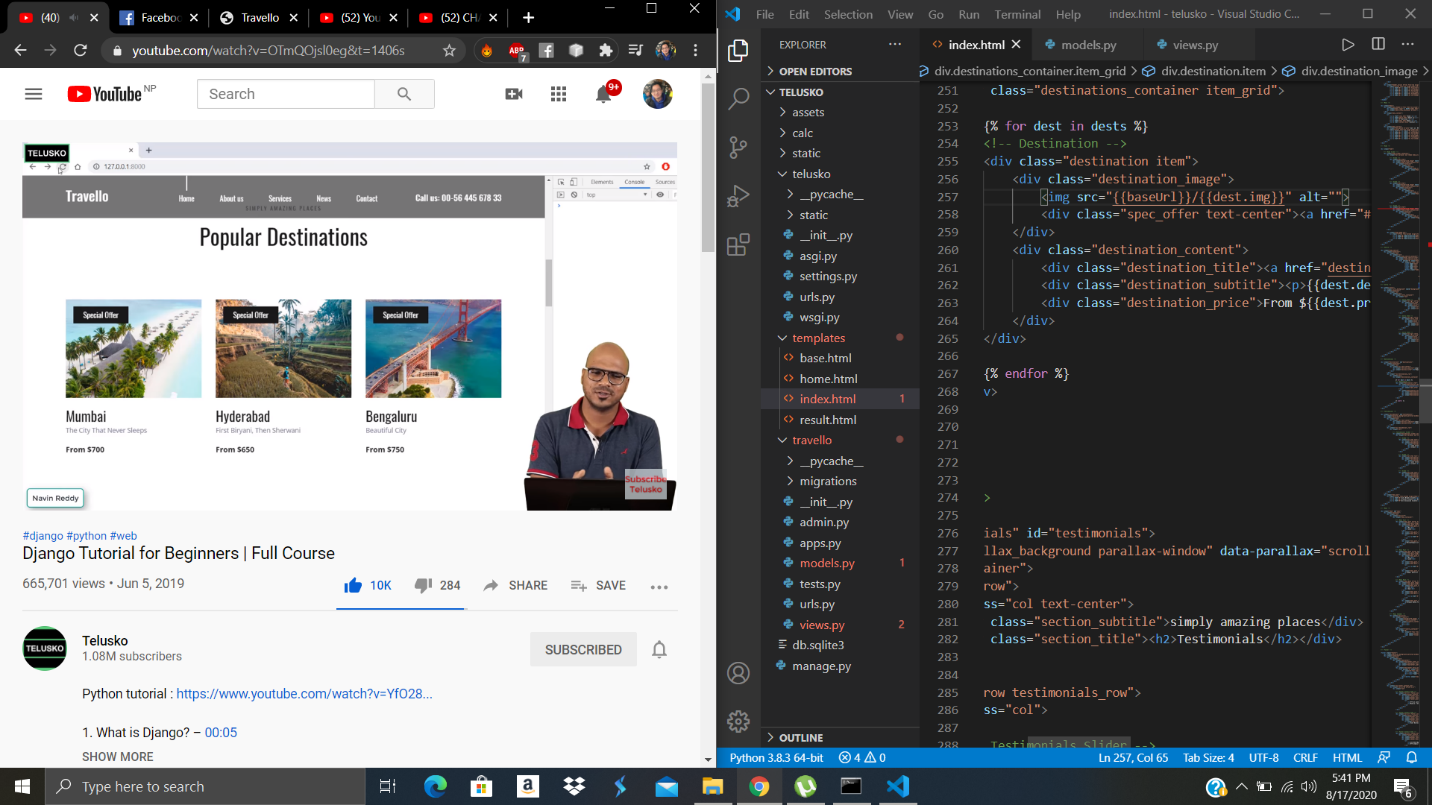
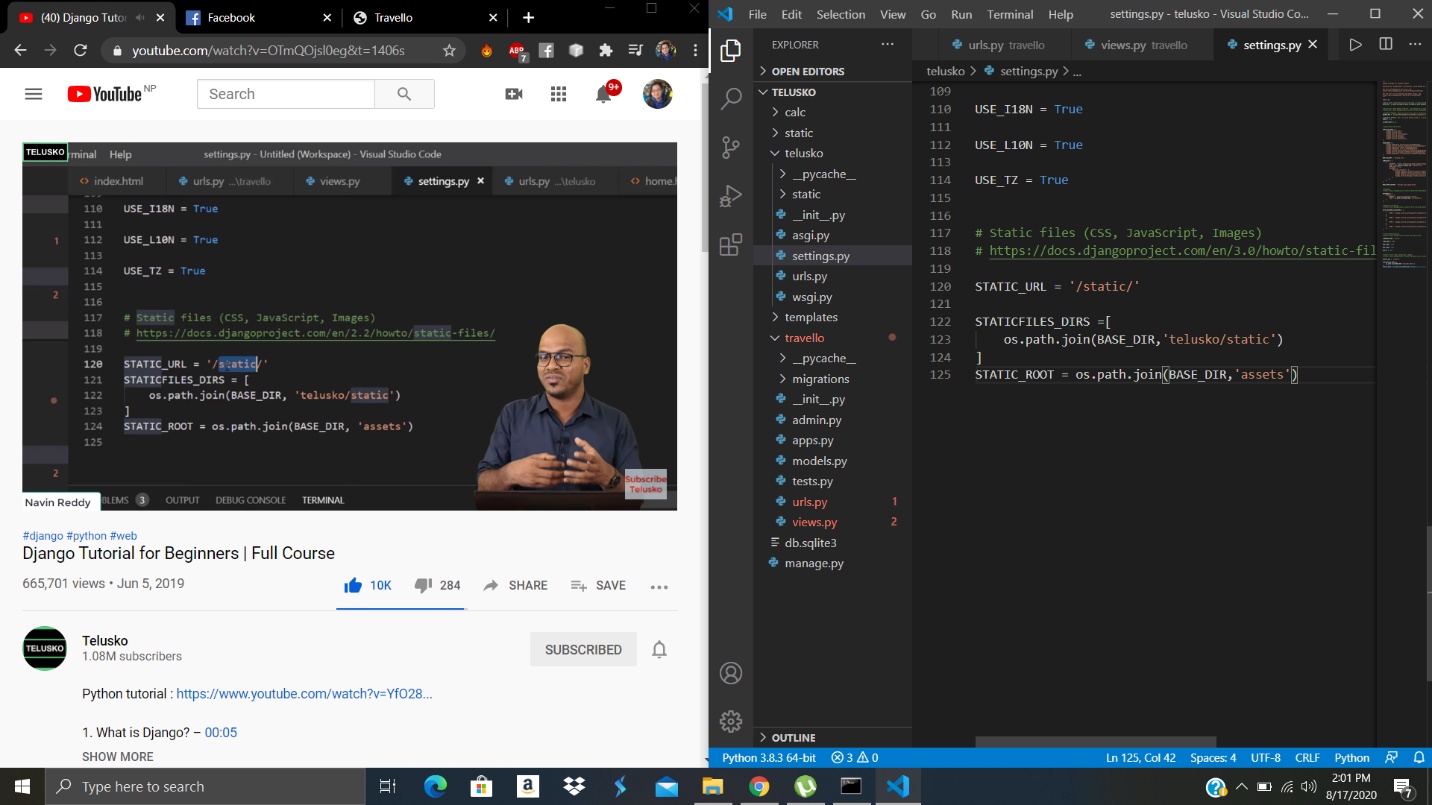
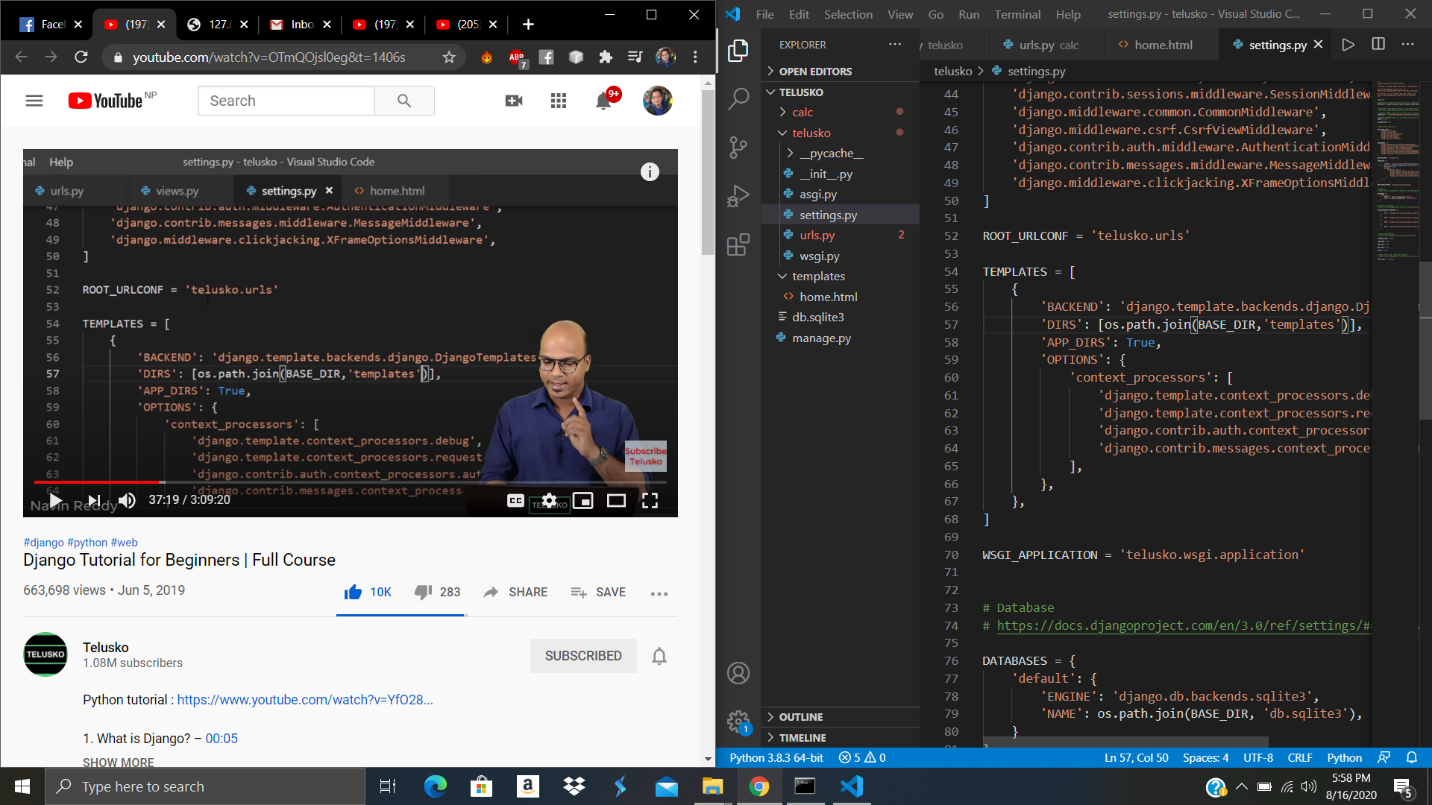
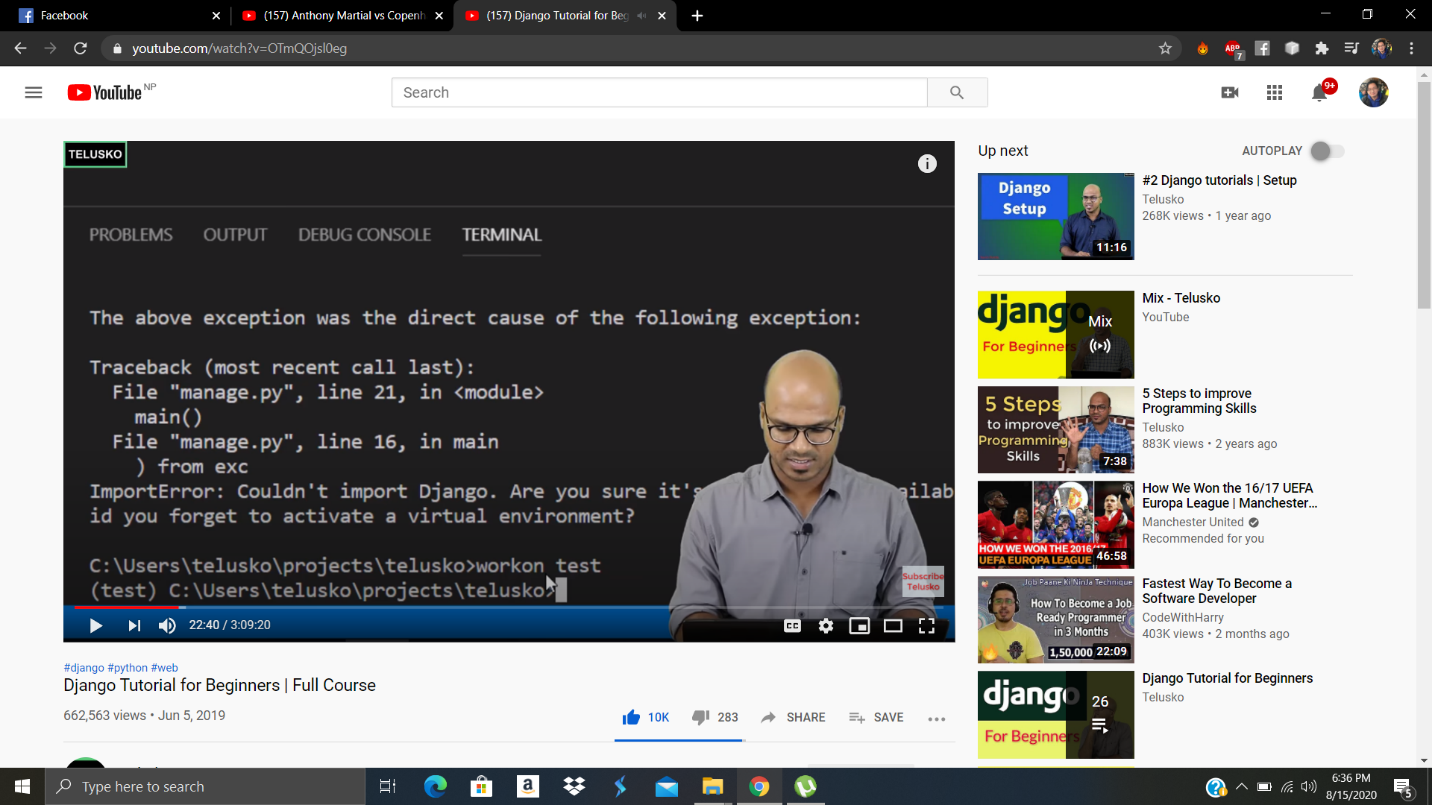
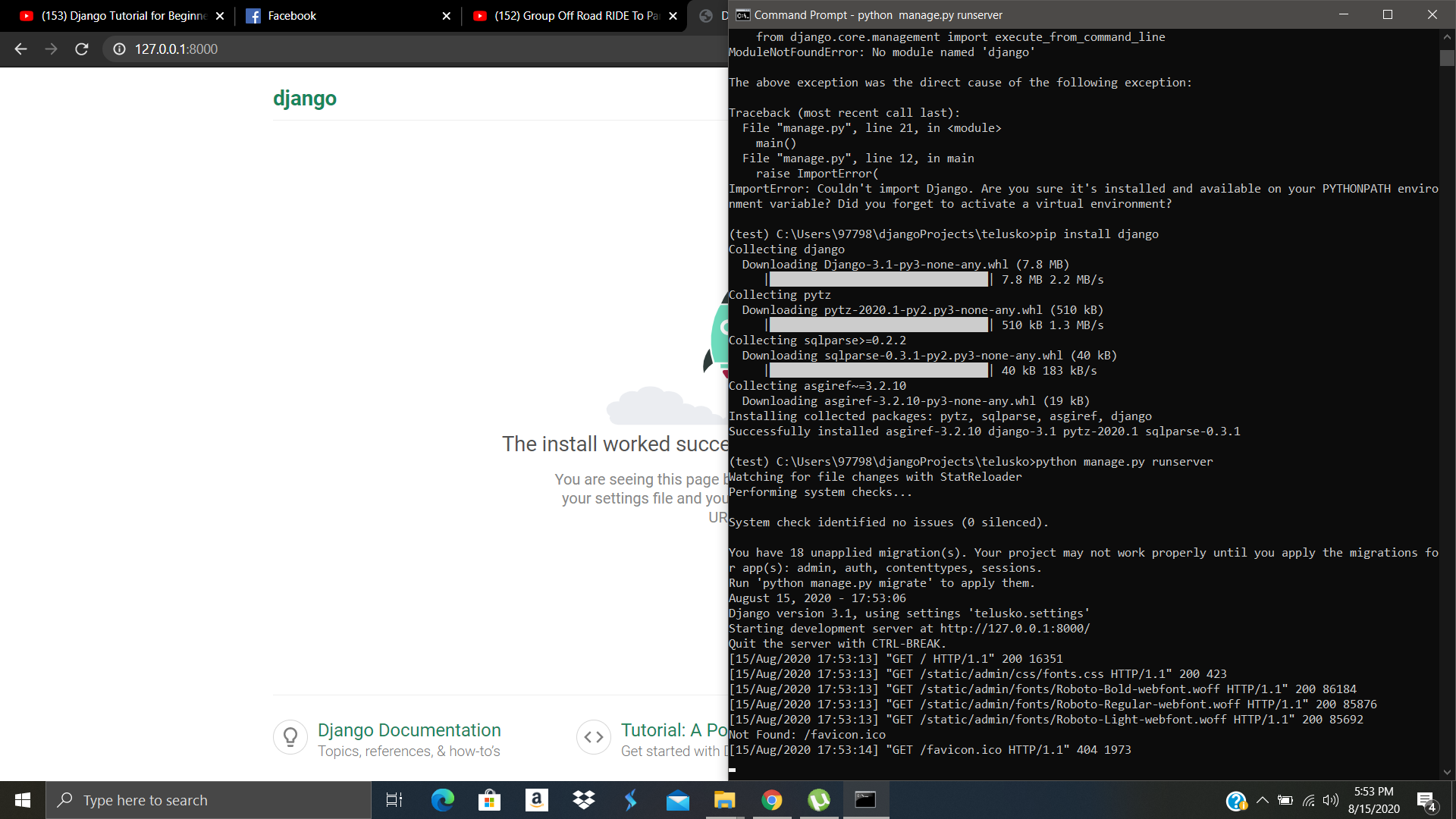
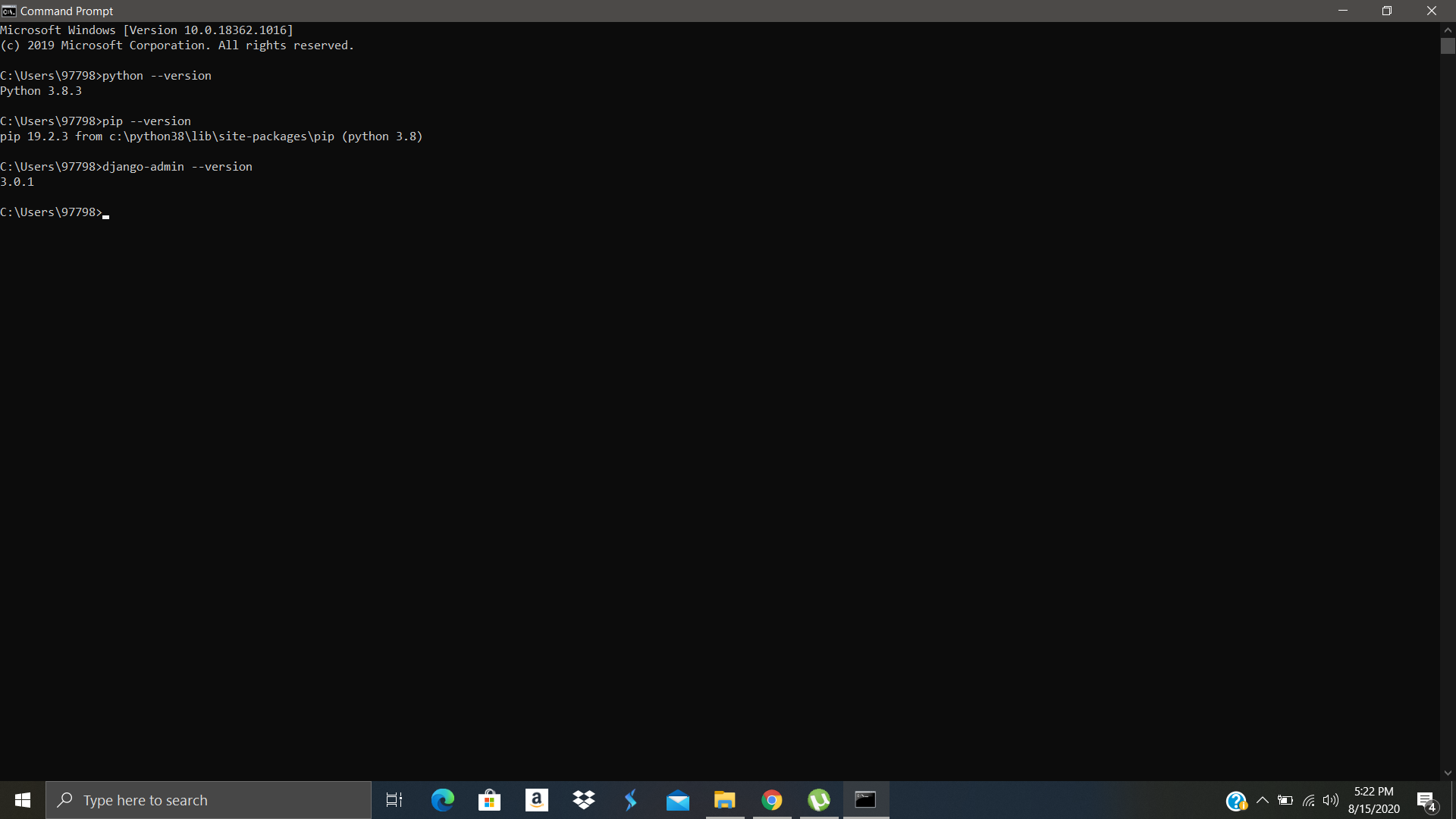
  );

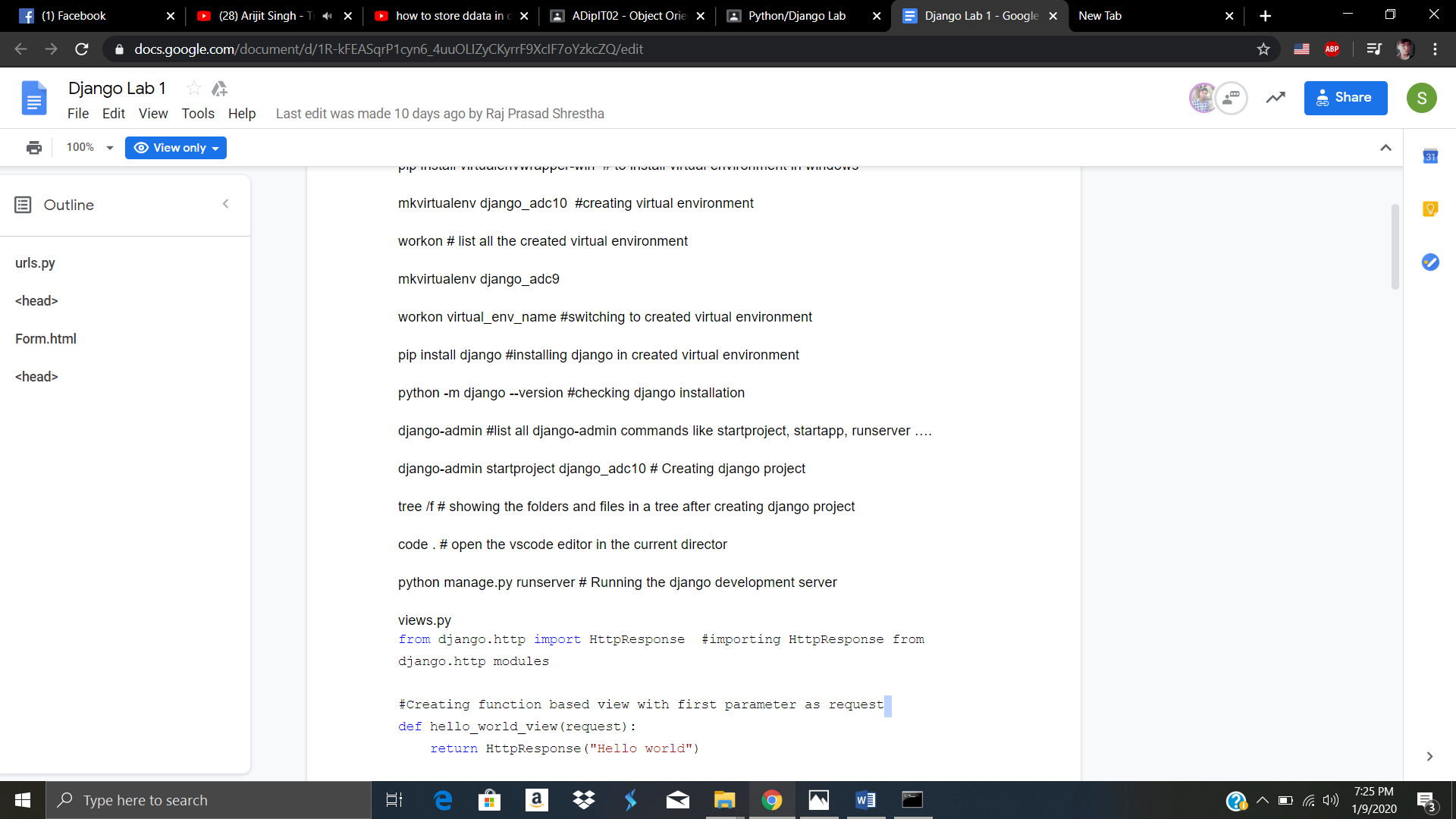
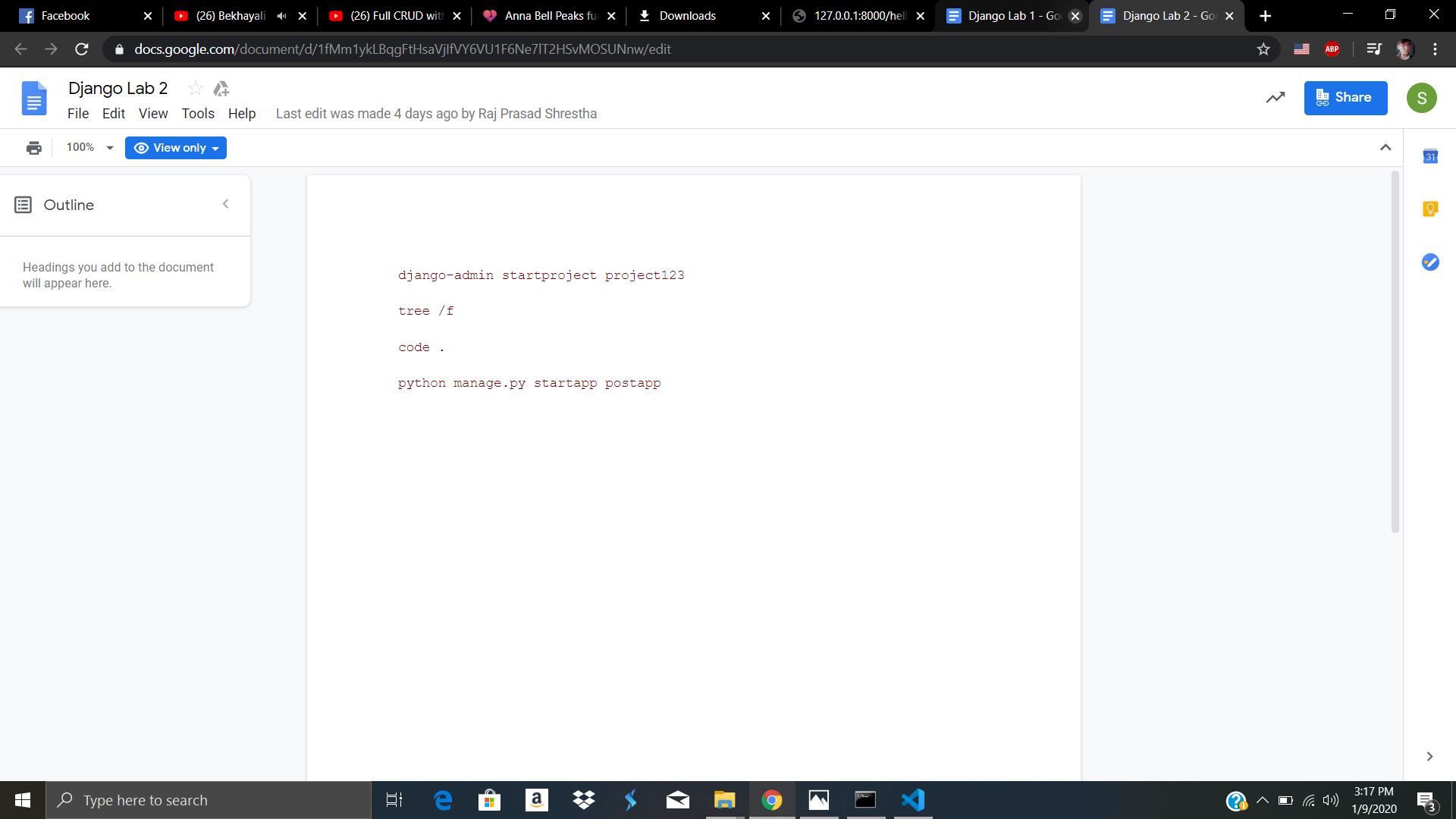
}

export default App;

We have to run command in cmd prompt:

: npm run buid





# Virtual environment

* Open command prompt in certain file location

# \*Set up Django Project:

django-admin.py startproject imageCaption

# \*Set up you django app

python mange.py startapp imageCaption

# \*create urls.py in myapp:

from django.urls import path

from .import views

urlpatterns = [

path('',views.index,name="index")

]

# \*in views.py of myapp:

from django.shortcuts import render

# Create your views here.

from django.shortcuts import render

from django.http import HttpResponse

# # Create your views here.

def index(request):

return HttpResponse("heelo")

# #urls.py of imageCaption:

path('',include('myapp.urls')),

# # Templates:

1. create folder in root directory named templates

2.create index.html

3.in settings, templates=[

'DIRS':[os.path.join(BASE\_DIR,'templates')]

]

4. render(request, 'index.html')

# \*STATIC FILES(Images,JS,CSS):

1.Create folder static in project and copy all (js,cs,plugins)

2.IN settings,

STATICFILES\_DIRS = [

os.path.join(BASE\_DIR,'static')]

STATIC\_ROOT = os.path.join(BASE\_DIR,'assets')

3.Create folder with django code.

python manage.py collectstatic

4. load static files with {% load static %}

href="{% static 'styles/bootstrap.....css' %}" or

style="background-image:url(/static/images/travello.jpg)"

# \*How to work with Database:

Model:

class Datas(models.Model):

caption = models.CharField(max\_length=400)

img = models.ImageField(upload\_to='pics')

## In settings,

INSTALLED\_APPS = [

mention\_you\_app name('travello.apps.TravelloCOnfig'),

]

## In terminal:

python manage.py makemigrations

pip install Pillow

python manage.py sqlmigrate myapp 0001

python manage.py migrate

## Create superuser

python manage.py createsuperuser

user:ram

password: ramsita

## In admin.py

import model(from .models import modelname)

admin.site.register(modelname)

## For images.

MEDIA\_URL = '/media/'

MEDIA\_ROOT = os.path.join(BASE\_DIR,'media')

## in urls of project:

from django.conf import settings

from django.conf.urls.static import static

urlpatterns = urlpatterns + static(settings.MEDIA\_URL,,document\_root =settings.MEDIA\_ROOT)

## in view.py :

from django.shortcuts import render

from .models import Datas

# Create your views here.

def index(request):

datas = Datas.objects.all()

return render(request,'index.html',{'datas':datas})

# \*User Registration:

## Create accounts app

## Create url.py :

from django.urls import path

from .import views

urlpatterns = [

path('register/',views.register,name="register")

]

## In views:

from django.shortcuts import render,redirect

from django.contrib.auth.models import User,auth

from django.contrib import messages

# Create your views here.

def register(request):

    if request.method == 'POST':

        first\_name = request.POST['first\_name']

        last\_name = request.POST['last\_name']

        username = request.POST['username']

        password1 = request.POST['password1']

        password2 = request.POST['password2']

        email = request.POST['email']

        if password1 == password2:

            if User.objects.filter(username=username).exists():

                messages.info(request,'Username Taken')

                return redirect('register')

            elif User.objects.filter(email=email).exists():

                messages.info(request,'Email Taken')

                return redirect('register')

            else:

                user = User.objects.create\_user(username=username,password=password1,email=email,first\_name=first\_name,last\_name=last\_name)

                user.save()

        else:

             messages.info(request,'Password Not Matching')

             return redirect('register')

        return redirect('/')

    else:

        return render(request,'register.html')

## Passing Message:

messages.info(request,'Username Taken')

<div>

        {% for message in messages%}

        {{message}}

        {% endfor%}

    </div>

Login:

Create login.html in templates

  <form action="login" method="POST">

        {% csrf\_token %}

        User Name: <input type="text" name="username" placeholder="User Name"><br>

        Password: <input type="password" name="password" placeholder="Password"><br>

        <input type="submit">

    </form>

In urls.py of accounts,

path(“login”,views.login,name=”login”)

In views.py of accounts:

def login(request):

    if request.method == 'POST':

        username = request.POST['username']

        password = request.POST['password']

        user = auth.authenticate(username=username,password=password)

        if user is not None:

            auth.login(request,user)

            return redirect("/")

        else:

            messages.info(request,"Invalid credentials")

            return redirect('login')

    else:

        return render(request,'login.html')

## index.html

{% if user.is\_authenticated %}

                                    <li>Welcome, {{user.first\_name}}</li>

                                    <li><a href="accounts/logout">Logout</a></li>

                                    {% else %}

                                    <li><a href="accounts/register">Register</a></li>

                                    <li><a href="accounts/login">Login</a></li>

                                    {% endif %}

Logout:

In urls.py

path("logout",views.logout,name="logout")

In views.py

def logout(request):

    auth.logout(request)

    return redirect('/')

# \*How to upload image in Django:

Models:

from django.contrib.auth.models import User

class Profile(models.Model):

user = models.OneToOneField(User, on\_delete=models.CASCADE)

image = models.ImageField(default="default.jpg",upload\_to='pics')

def \_\_str\_\_(self):

return f'{self.user.username} Profile'

## In settings.py:

MEDIA\_URL = '/media/'

MEDIA\_ROOT = os.path.join(BASE\_DIR,'media')

# **Learn the Basics of Django Signals**

* Import signals (post\_save,pre\_save)
  + From django.db.models.signals import post\_save,pre\_save
  + Class Post(models.Model):

Title = models.CharField(max\_legth=50)

def \_str\_():

def save\_post(sender,instance,\*\*kwargs):

print(“something”)//logic

post\_save.connect(save\_post,sender=Post)

-makemigrations and migrate in cmd

Shell

From posts.models import Post

p= Post.objects.create(title=”first title”)

p2=Post()

p2.title = “secondtitle”

p2.save()

In model:

pre\_save.connect(save\_post,sender=Post)

post\_save.connect(save\_post,sender=Post)

Shell

From posts.models import Post

P3=Post()

P3.title = “secondtitle”

P3.save()

<https://www.youtube.com/watch?v=T6PyDm79PFo>

# **image Resizing Before Upload**

<https://www.youtube.com/watch?v=JQIa5ZYynBI>

-install pillow

-in model:Under image field:

From PIL import Image

def save(self, \*args,\*\*kwargs):

super().save(\*args,\*\*kwargs)

img = Image.open(self.image.path)

if img.height > 300 or img.weight >300;

output\_size = (300,300)

img.thumbnail(output\_size)

img.save(self.image.path)

DOCUMENTATION FOR BUILDING REACT-STEP-FORM:

STEP 1: CREATE REACT APP

* npx create-react-app react-step-form

STEP 2: IMPORT MATERIAL UI DEPENDENCIES

* npm i material-ui

STEP 3: TO OPEN EDITOR

* code .

STEP 4: RUN SERVER

* npm start

STEP 5: CREATE “components” folder inside src folder and create Confim.js, FormPersonalDetails.js, FormUserDetails.js, Success.js, UserForm.js inside components folder.

STEP 6: Install ES7 React/Redux/…. extension and write rce and tap

import React, { Component } from 'react'

export class UserForm extends Component {

    render() {

        return (

            <div>

            </div>

        )

    }

}

export default UserForm

STEP 7:

import React, { Component } from 'react'

import FormUserDetails from './FormUserDetails';

export class UserForm extends Component {

    state = {

        step:1,

        firstName: '',

        lastName: '',

        email: '',

        occupation:'',

        city:'',

        bio:''

    }

//procedd to next step

    nextStep = () =>{

        const { step } = this.state;

        this.setState({

            step: step + 1

        });

    }

    //go back to previous step

    prevStep = () =>{

        const { step } = this.state;

        this.setState({

            step: step - 1

        });

    }

    // handle fields change

    handleChange = input => e => {

        this.setState({[input]: e.target.value});

    }

    render() {

        const{ step } = this.state;

        const { firstName,lastName, email, occupation,city,

            bio } = this.state;

        const values ={ firstName,lastName, email, occupation,city,bio}

        switch(step){

            case 1:

                return(

                    <FormUserDetails

                    nextStep={this.nextStep}

                    handleChange = {this.handleChange}

                    values={values}

                    />

                )

            case 2:

                return <h1>FormPersonalDetails</h1>

            case 3:

                return <h1>Confirm</h1>

            case 4:

                return <h1>Success</h1>

        }

    }

}

export default UserForm

STEP 8: IN app.js

import './App.css';

import UserForm from './components/UserForm';

function App() {

  return (

    <div className="App">

     <UserForm/>

    </div>

  );

}

export default App;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*JS FILES\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

UserForm.js

import React, { Component } from 'react'

import FormUserDetails from './FormUserDetails';

import FormPersonalDetails from './FormPersonalDetails';

import Confirm from './Confirm';

import Success from './Success';

export class UserForm extends Component {

    state = {

        step:1,

        firstName: '',

        lastName: '',

        email: '',

        occupation:'',

        city:'',

        bio:''

    }

//procedd to next step

    nextStep = () =>{

        const { step } = this.state;

        this.setState({

            step: step + 1

        });

    }

    //go back to previous step

    prevStep = () =>{

        const { step } = this.state;

        this.setState({

            step: step - 1

        });

    }

    // handle fields change

    handleChange = input => e => {

        this.setState({[input]: e.target.value});

    }

    render() {

        const{ step } = this.state;

        const { firstName,lastName, email, occupation,city,

            bio } = this.state;

        const values ={ firstName,lastName, email, occupation,city,bio}

        switch(step){

            case 1:

                return(

                    <FormUserDetails

                    nextStep={this.nextStep}

                    handleChange = {this.handleChange}

                    values={values}

                    />

                )

            case 2:

                return(

                    <FormPersonalDetails

                    nextStep={this.nextStep}

                    prevStep={this.prevStep}

                    handleChange = {this.handleChange}

                    values={values}

                    />

                )

            case 3:

                return(

                    <Confirm

                    nextStep={this.nextStep}

                    prevStep={this.prevStep}

                    values={values}

                    />

                )

            case 4:

                return(

                    <Success/>

                )

        }

    }

}

export default UserForm

FormUserDetails.js

import React, { Component } from 'react'

import MuiThemeProvider from

'material-ui/styles/MuiThemeProvider';

import AppBar from 'material-ui/AppBar';

import TextField from 'material-ui/TextField';

import RaisedButton from 'material-ui/RaisedButton';

export class FormUserDetails extends Component {

    continue = e => {

        e.preventDefault();

        this.props.nextStep();

    }

    render() {

        const { values, handleChange } = this.props;

        return (

            <MuiThemeProvider>

               <React.Fragment>

                   <AppBar title="Enter User Details"/>

                   <TextField

                    hintText="Enter Your First Name"

                    floatingLabelText="First Name"

                    onChange={handleChange('firstName')}

                    defaultValue={values.firstName}

                    />

                    <br/>

                    <TextField

                    hintText="Enter Your Last Name"

                    floatingLabelText="Last Name"

                    onChange={handleChange('lastName')}

                    defaultValue={values.lastName}

                    />

                    <br/>

                    <TextField

                    hintText="Enter Your Email"

                    floatingLabelText="Email"

                    onChange={handleChange('email')}

                    defaultValue={values.email}

                    />

                    <br/>

                    <RaisedButton

                    label = "Continue"

                    primary={true}

                    style={styles.button}

                    onClick={this.continue}

                    />

               </React.Fragment>

            </MuiThemeProvider>

        )

    }

}

const styles={

    button: {

        margin: 15

    }

}

export default FormUserDetails

FormPersonalDetails.js

import React, { Component } from 'react'

import MuiThemeProvider from

'material-ui/styles/MuiThemeProvider';

import AppBar from 'material-ui/AppBar';

import TextField from 'material-ui/TextField';

import RaisedButton from 'material-ui/RaisedButton';

export class FormPersonalDetails extends Component {

    continue = e => {

        e.preventDefault();

        this.props.nextStep();

    }

    back = e => {

        e.preventDefault();

        this.props.prevStep();

    }

    render() {

        const { values, handleChange } = this.props;

        return (

            <MuiThemeProvider>

               <React.Fragment>

                   <AppBar title="Enter Personal Details"/>

                   <TextField

                    hintText="Enter Your Occupation"

                    floatingLabelText="Occupation"

                    onChange={handleChange('occupation')}

                    defaultValue={values.occupation}

                    />

                    <br/>

                    <TextField

                    hintText="Enter Your City"

                    floatingLabelText="City"

                    onChange={handleChange('city')}

                    defaultValue={values.city}

                    />

                    <br/>

                    <TextField

                    hintText="Enter Your Bio"

                    floatingLabelText="Bio"

                    onChange={handleChange('bio')}

                    defaultValue={values.bio}

                    />

                    <br/>

                    <RaisedButton

                    label = "Continue"

                    primary={true}

                    style={styles.button}

                    onClick={this.continue}

                    />

                    <br/>

                    <RaisedButton

                    label = "Back"

                    primary={false}

                    style={styles.button}

                    onClick={this.back}

                    />

               </React.Fragment>

            </MuiThemeProvider>

        )

    }

}

const styles={

    button: {

        margin: 15

    }

}

export default FormPersonalDetails

Confirm.js

import React, { Component } from 'react'

import MuiThemeProvider from

'material-ui/styles/MuiThemeProvider';

import AppBar from 'material-ui/AppBar';

import {List, ListItem} from 'material-ui/List';

import RaisedButton from 'material-ui/RaisedButton';

export class Confirm extends Component {

    continue = e => {

        e.preventDefault();

        //Process your form// to api //backend language

        this.props.nextStep();

    }

    back = e => {

        e.preventDefault();

        this.props.prevStep();

    }

    render() {

        const { values: { firstName, lastName,email, occupation, city, bio}} = this.props;

        return (

            <MuiThemeProvider>

               <React.Fragment>

                   <AppBar title="Confirm User Data"/>

                   <List>

                       <ListItem

                       primaryText = "First Name"

                       secondaryText ={ firstName}

                       />

                        <ListItem

                       primaryText = "Last Name"

                       secondaryText ={ lastName}

                       />

                        <ListItem

                       primaryText = "Email"

                       secondaryText ={ email}

                       />

                        <ListItem

                       primaryText = "Occupation"

                       secondaryText ={ occupation}

                       />

                        <ListItem

                       primaryText = "City"

                       secondaryText ={ city}

                       />

                        <ListItem

                       primaryText = "Bio"

                       secondaryText ={ bio}

                       />

                   </List>

                    <br/>

                    <RaisedButton

                    label = "Confirm & Continue"

                    primary={true}

                    style={styles.button}

                    onClick={this.continue}

                    />

                    <RaisedButton

                    label = "Back"

                    primary={false}

                    style={styles.button}

                    onClick={this.back}

                    />

               </React.Fragment>

            </MuiThemeProvider>

        )

    }

}

const styles={

    button: {

        margin: 15

    }

}

export default Confirm

Success.js

import React, { Component } from 'react'

import MuiThemeProvider from

'material-ui/styles/MuiThemeProvider';

import AppBar from 'material-ui/AppBar';

export class Success extends Component {

    render() {

        return (

            <MuiThemeProvider>

               <React.Fragment>

                   <AppBar title="Success"/>

                   <h1>!!!Thank you!!!</h1>

               </React.Fragment>

            </MuiThemeProvider>

        )

    }

}

export default Success