

1. Url Shortener:

The application is built using Flask framework .

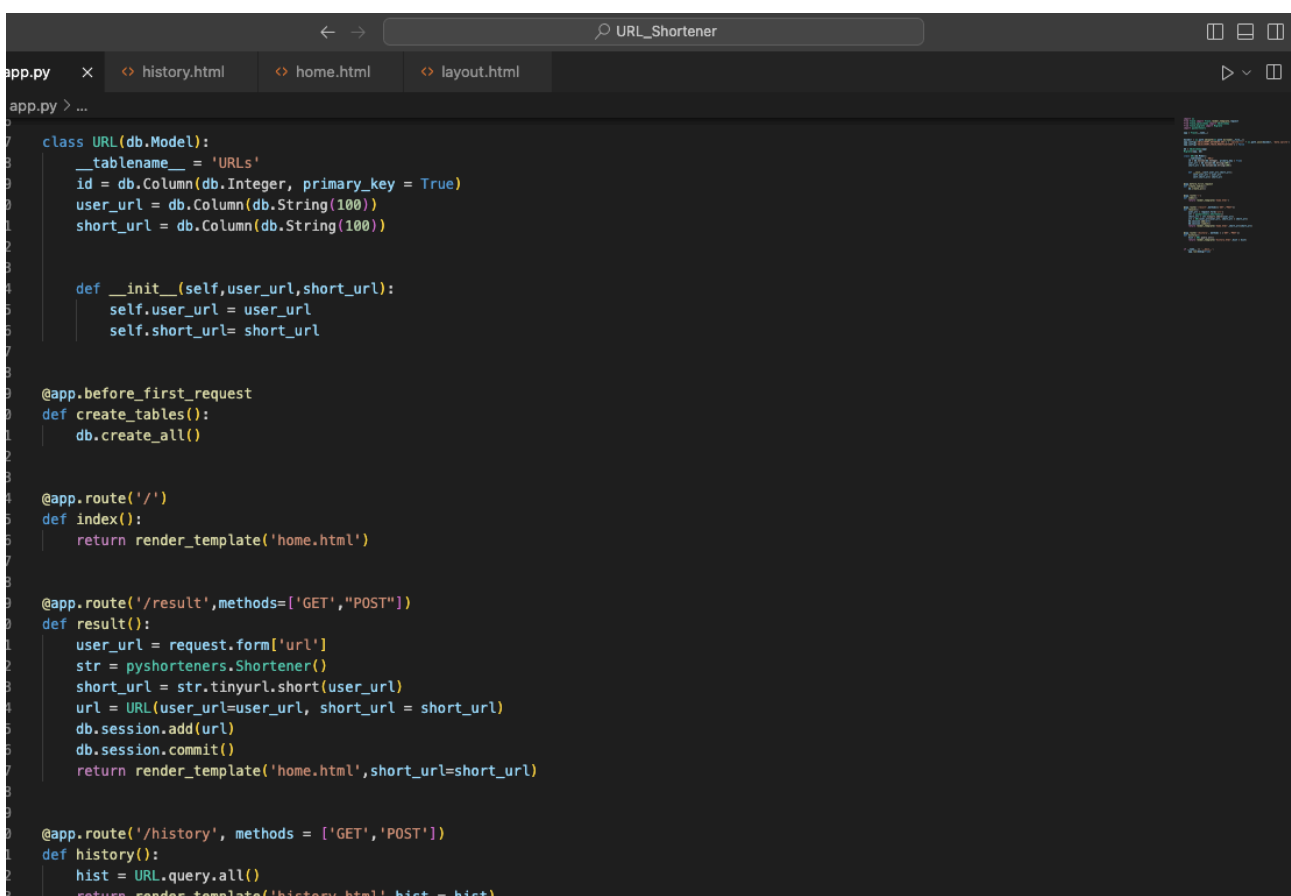
A virtual environment is built , which helps to install all the dependencies required .

On installing Sql Alchemy and Flask Migrate , Flask , Pyshorteners, We can start building the application

The database url is created and a table is built . All the dat entered is stored in the database .

The user defined url is then decreased into a simpler form with the help of tinyurl.

Th output is then saved into database column short_url



```
URL_Shortener
app.py x < home.html < layout.html
app.py > ...
class URL(db.Model):
    __tablename__ = 'URLs'
    id = db.Column(db.Integer, primary_key = True)
    user_url = db.Column(db.String(100))
    short_url = db.Column(db.String(100))

    def __init__(self, user_url, short_url):
        self.user_url = user_url
        self.short_url = short_url

@app.before_first_request
def create_tables():
    db.create_all()

@app.route('/')
def index():
    return render_template('home.html')

@app.route('/result', methods=['GET', 'POST'])
def result():
    user_url = request.form['url']
    str = pyshorteners.Shortener()
    short_url = str.tinyurl.short(user_url)
    url = URL(user_url=user_url, short_url = short_url)
    db.session.add(url)
    db.session.commit()
    return render_template('home.html', short_url=short_url)

@app.route('/history', methods = ['GET', 'POST'])
def history():
    hist = URL.query.all()
    return render_template('history.html', hist = hist)
```

Home Page

It consists of title , and a header

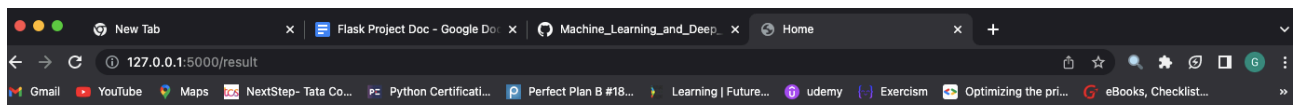
The header has the name of the application, and the page directs of home and history .

The home page takes the valid url and we press submit button , which generates the short url .

The url is then clicked , to redirect to the actual page .

Hence , our job is completed .

We have also added a history page , which shows all the previous data , or operations performed .



URL SHORTENER

[Home](#) [History](#)

New URL:

Shortened Url:

<https://tinyurl.com/yzpllc5s>

