Assignment -2

Assignment Date	08 November 2022
Student Name	Ajith M
Student Roll Number	723619106301
Maximum Marks	2 Marks

Question-1:

1. Create a Flask App
2. Add the Home page, About Page
3. Add the Bootstrap
4. Add the Sign in page and App the Signup Page + database connectivity

Solution:

index.js

```
function deleteNote(noteId) {
 fetch("/delete-note", { method: "POST",
 body: JSON.stringify({ noteId: noteId }),
 }).then((_res) => { window.location.href
   = "/";
                 });
}
```

base.html

```
<!DOCTYPE html>
<html>
                 <head>
                  <meta charset="utf-8" />
                  <meta name="viewport" content="width=device-width,
   initial-scale=1" />
   <link rel="stylesheet"
     href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/bootstrap.min.css"
     integrity="sha384-Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9Muh
     Of23Q9Ifjh" crossorigin="anonymous"
                  />
   <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/font-
     awesome/4.7.0/css/font-awesome.min.css " crossorigin="anonymous"
                  />
```

```
              <title>{% block title %}Home{% endblock %}</title>
             </head>
             <body>
              <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
  <button class="navbar-toggler"
   type="button" data-
   toggle="collapse" data-
   target="#navbar"
                >
                 <span class="navbar-toggler-icon"></span>
                </button>
                <div class="collapse navbar-collapse" id="navbar">
                 <div class="navbar-nav">
                  {% if user.is_authenticated %}
                  <a class="nav-item nav-link" id="home" href="/">Home</a>
                  <a class="nav-item nav-link" id="logout"
    href="/logout">Logout</a> {% else %}
                  <a class="nav-item nav-link" id="login" href="/login">Login</a>
                  <a class="nav-item nav-link" id="signUp" href="/sign-up">Sign
    Up</a> {% endif %}
                 </div>
                </div>
              </nav>

 {% with messages = get_flashed_messages(with_categories=true) %} {% if
 messages %} {% for category, message in messages %} {% if category ==
 'error' %}
 <div class="alert alert-danger alter-dismissable fade show" role="alert"> {{
  message }}
  <button type="button" class="close" data-dismiss="alert"> <span aria-
   hidden="true">&times;</span>
                </button>
              </div>
              {% else %}
 <div class="alert alert-success alter-dismissable fade show" role="alert"> {{
  message }}
  <button type="button" class="close" data-dismiss="alert"> <span aria-
   hidden="true">&times;</span>
                </button>
              </div>
              {% endif %} {% endfor %} {% endif %} {% endwith %}

              <div class="container">{% block content %} {% endblock %}</div>
 <script src="https://code.jquery.com/jquery-3.2.1.slim.min.js"
  integrity="sha384-
KJ3o2DKtIkvYIK3UENzmM7KCkRr/rE9/Qpg6aAZGJwFDMVNA/GpGFF93hXpG5KkN
  " crossorigin="anonymous"
              ></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"
  integrity="sha384-
  ApNbgh9B+Y1QKtv3Rn7W3mgPxhU9K/ScQsAP7hUibX39j7fakFPskvXusvfa0b4Q"
  crossorigin="anonymous"
```

```
                ></script>
    <script
      src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"
      integrity="sha384-
      JZR6Spejh4U02d8jOt6vLEHfe/JQGiRRSQQxSfFWpi1MquVdAy
      jUar5+76PVCmYl" crossorigin="anonymous"
                ></script>

                <script type="text/javascript"
    src="{{ url_for('static', filename='index.js') }}"
    ></script>
               </body>
</html>
```

home.hml

```
{% extends "base.html" %} {% block title %}Home{% endblock %} {% block content
%}
<h1 align="center">Notes</h1>
<ul class="list-group list-group-flush" id="notes">
               {% for note in user.notes %}
               <li class="list-group-item">
                {{ note.data }}
    <button type="button" class="close" onClick="deleteNote({{ note.id }})"> <span
      aria-hidden="true">&times;</span>
                </button>
               </li>
               {% endfor %}
</ul>
<form method="POST">
               <textarea name="note" id="note"
  class="form-control"></textarea> <br />
               <div align="center">
    <button type="submit" class="btn btn-primary">Add Note</button> </div>
</form>
{% endblock %}
```

login.html

```
{% extends "base.html" %} {% block title %}Login{% endblock %} {% block content
%}
<form method="POST">
               <h3 align="center">Login</h3>
               <div class="form-group">
                <label for="email">Email Address</label>
    <input type="email"
      class="form-control"
      id="email"
      name="email"
                  placeholder="Enter email"
                />
               </div>
```

```
           <div class="form-group">
            <label for="password">Password</label>
  <input type="password"
   class="form-control"
   id="password"
   name="password"
   placeholder="Enter
   password"
            />
           </div>
           <br />
           <button type="submit" class="btn btn-primary">Login</button>
</form>
{% endblock %}
```

sign_up.html

```
{% extends "base.html" %} {% block title %}Sign Up{% endblock %} {% block
content %}
<form method="POST">
           <h3 align="center">Sign Up</h3>
           <div class="form-group">
            <label for="email">Email Address</label>
  <input type="email"
   class="form-control"
   id="email" name="email"
   placeholder="Enter email"
            />
           </div>
           <div class="form-group">
            <label for="firstName">First Name</label>
  <input type="text" class="form-control"
   id="firstName" name="firstName"
   placeholder="Enter first name"
            />
           </div>
           <div class="form-group">
            <label for="password1">Password</label>
  <input type="password"
   class="form-control"
   id="password1"
   name="password1"
   placeholder="Enter password"
            />
           </div>
           <div class="form-group">
            <label for="password2">Password (Confirm)</label>
  <input type="password" class="form-
   control" id="password2"
   name="password2" placeholder="Confirm
   password"
            />
```

```
          </div>
          <br />
          <button type="submit" class="btn btn-primary">Submit</button>
</form>
{% endblock %}
```

init.py

```
from flask import Flask
from flask_sqlalchemy import SQLAlchemy from
os import path
from flask_login import LoginManager

db = SQLAlchemy() DB_NAME
= "database.db"


def create_app():
          app = Flask( _name  )
          app.config['SECRET_KEY'] = 'hjshjhdjah kjshkjdhjs'
          app.config['SQLALCHEMY_DATABASE_URI'] = f'sqlite:///{DB_NAME}'
  db.init_app(app)

          from .views import views from

  .auth import auth

  app.register_blueprint(views, url_prefix='/')

  app.register_blueprint(auth, url_prefix='/')

  from .models import User, Note

  create_database(app)

          login_manager = LoginManager()
  login_manager.login_view = 'auth.login'
  login_manager.init_app(app)

  @login_manager.user_loader

  def load_user(id):  return

  User.query.get(int(id))     return

  app


def create_database(app): if not
          path.exists('website/' + DB_NAME):
          db.create_all(app=app) print('Created
          Database!')
```

auth.py

```
        from flask import Blueprint, render_template, request, flash, redirect, url_for
        from
        .models import User
        from werkzeug.security import generate_password_hash, check_password_hash
        from . import db
        from flask_login import login_user, login_required, logout_user, current_user

auth = Blueprint('auth', ~~na~~me ) —


        @auth.route('/login', methods=['GET', 'POST']) def
        login():
          if   request.method   ==   'POST':   email   =
            request.form.get('email')     password     =
            request.form.get('password')

            user = User.query.filter_by(email=email).first() if user:
            if check_password_hash(user.password,   password):
            flash('Logged in successfully!', category='success')
            login_user(user,
                remember=True) return
                redirect(url_for('views.home'))
              else: flash('Incorrect password, try
                again.', category='error') else:
                      flash('Email does not exist.', category='error')
return render_template("login.html", user=current_user)


        @auth.route('/logout') @login_required def
        logout(): logout_user() return
        redirect(url_for('auth.login'))


        @auth.route('/sign-up', methods=['GET',
        'POST']) def sign_up(): if request.method ==
        'POST':
                    email = request.form.get('email')
            first_name = request.form.get('firstName')
            password1 = request.form.get('password1')
            password2 = request.form.get('password2')

                    user =
            User.query.filter_by(email=email).first() if user:
                      flash('Email already exists.', category='error')
                    elif len(email) < 4:
                      flash('Email must be greater than 3 characters.', category='error')
                    elif len(first_name) < 2:
                      flash('First name must be greater than 1
              character.', category='error') elif password1 != password2:
                      flash('Passwords don\'t match.', category='error')
            elif len(password1) < 7: flash('Password must be at least
              7 characters.', category='error') else:
                        new_user = User(email=email, first_name=first_name,
              password=generate_password_hash(
                password1, method='sha256')) db.session.add(new_user)
              db.session.commit() login_user(new_user, remember=True)
              flash('Account created!', category='success') return
              redirect(url_for('views.home'))
return render_template("sign_up.html", user=current_user)
```

models.py

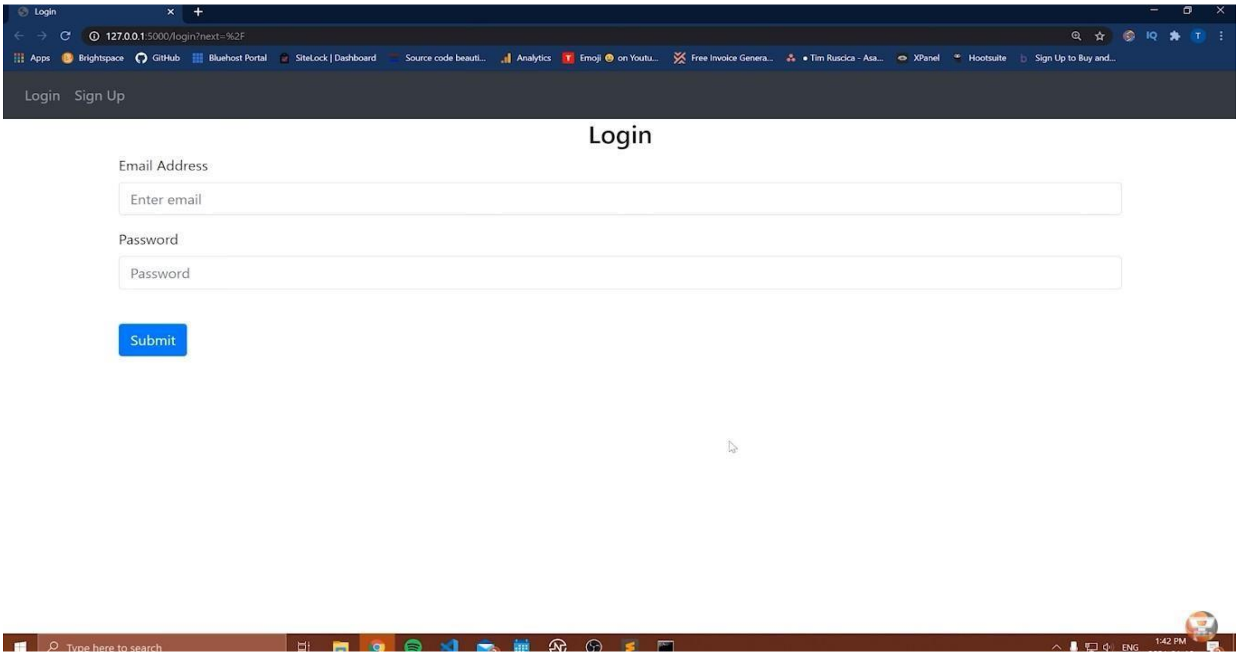
```
        afrom . import db from
        flask_login import UserMixin
        from sqlalchemy.sql import func


        class   Note(db.Model):            id          =
          db.Column(db.Integer,         primary_key=True) data =
          db.Column(db.String(10000)) date =
          db.Column(db.DateTime(timezone=True),
          default=func.now()) user_id = db.Column(db.Integer,
          db.ForeignKey('user.id'))


        class   User(db.Model, UserMixin):       id          =
          db.Column(db.Integer, primary_key=True) email
          =     db.Column(db.String(150),
                unique=True) password =
                db.Column(db.String(150))
          first_name = db.Column(db.String(150))
                  notes = db.relationship('Note')
```

views.py

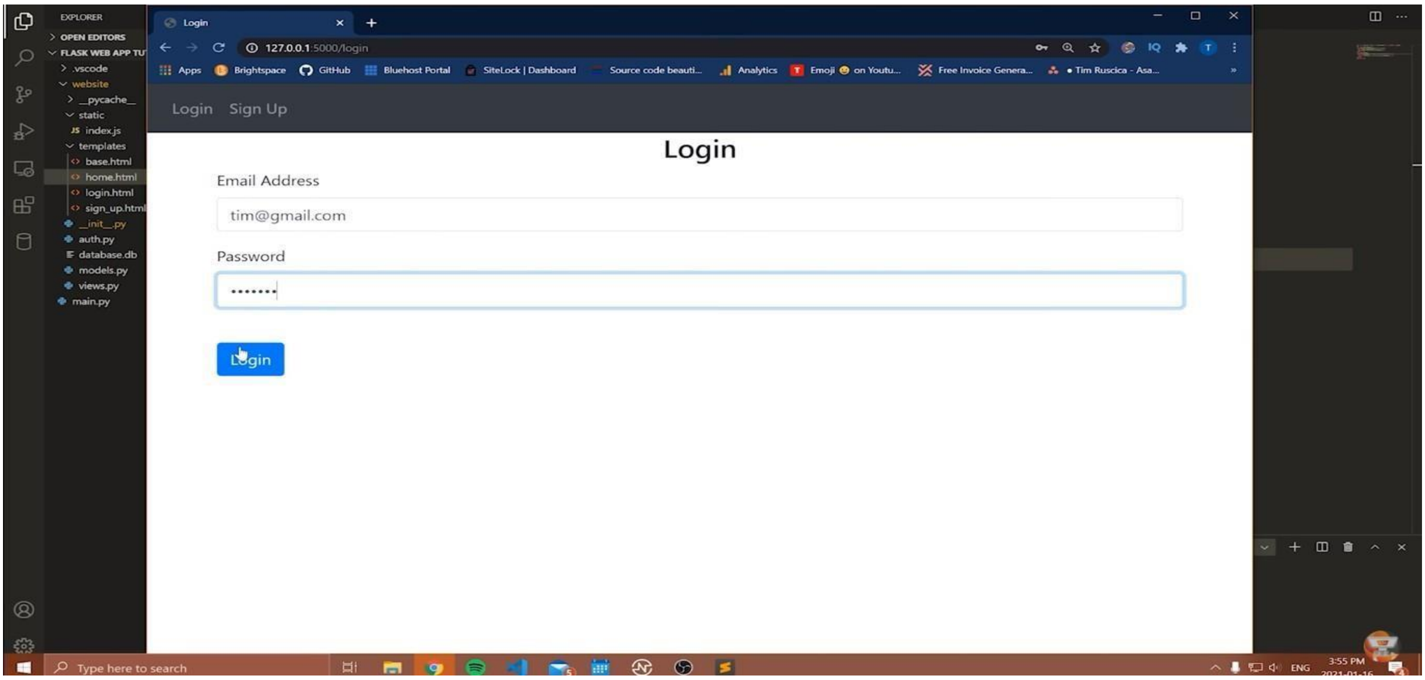
```
        from flask import Blueprint, render_template, request, flash, jsonify
        from flask_login import login_required, current_user from .models
        import Note from . import db import json
views = Blueprint('views', __ name__)


        @views.route('/', methods=['GET', 'POST'])
        @login_required
        def home():
          if request.method == 'POST': note
            = request.form.get('note')
            if len(note) < 1: flash('Note is too
              short!', category='error') else:
                        new_note = Note(data=note,
                user_id=current_user.id)
                db.session.add(new_note) db.session.commit()
                flash('Note added!', category='success')

                return render_template("home.html", user=current_user)
    @views.route('/delete-note', methods=['POST']) def delete_note(): note =
json.loads(request.data) noteId = note['noteId'] note = Note.query.get(noteId) if
                                    note:
                      if note.user_id == current_user.id:
                    db.session.delete(note)

                    db.session.commit()

                    return jsonify({})
```

OUTPUT SCREENSHOTS

Step 1 : enter our email address and password



STEP 2 : After enter that click “Login”

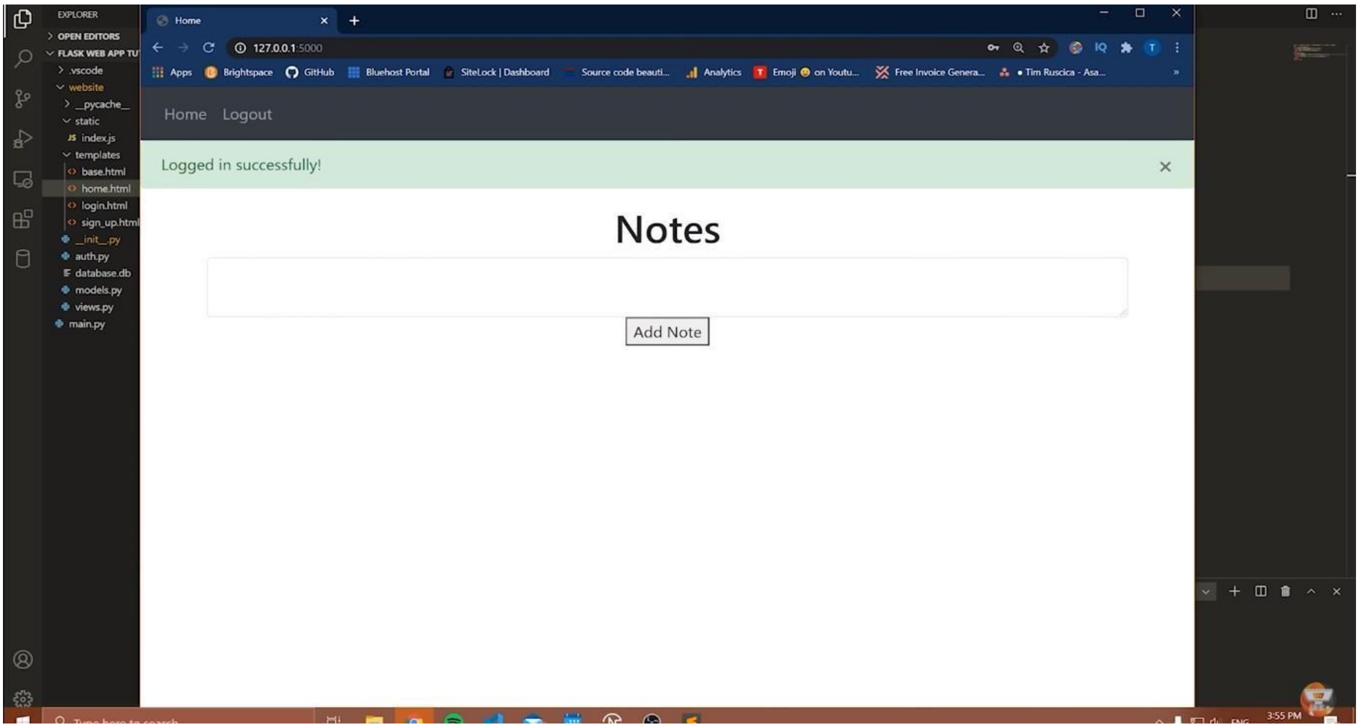


Login

Email Address: tim@gmail.com

Password: •••••••

After that website redirect you to notes :



Logged in successfully!

Notes