A

Project Report on

ANTI-ENIGMA

Submitted in partial fulfillment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING COMPUTER SCIENCE AND ENGINEERING

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ABSTRACT

Something which is mysterious is defined as **enigma**. In 2018, There was a cyber apocalypse which threatened Jeff Bezos, CEO of Amazon. What happened was a small malicious file placed under a media file upon downloading transferred all his data illegally. These kind of acts by hackers place the civilians in peril.

In this regard, our project Anti-Enigma(helps to crack mysterious threats found) aims to develop a small-scale user interface which analyses such malware and take required action to shield the data at utmost level of securities.

INTRODUCTION

a. OBJECTIVE:

The objective of this project is to develop a simple small scale user interface which protects the user from malicious data files by analyzing threats and shielding the users data.

b. OVERVIEW:

The user gets to access the website only through login system and hence credentials. The user can upload the file which seem to be malicious into the drop-down box. The result is displayed on the screen if any threat is found but the details of that particular threats is confidential hence it is emailed or sent as message to private number of the user. All the users data is stored and protected.

c. SCOPE:

This application can be easily implemented under various situations. We can add new features as and when we require. Reusability is possible as and when require in this application. There is flexibility in all the modules.

- Extensibility: This software is extendable in ways that its original developers may not expect. The following principles enhances extensibility like hide data structure, avoid traversing multiple links or methods, avoid case statements on object type and distinguish public and private operations.
- Understandability: A method is understandable if someone other than the creator of the method can understand the code(as well as the creator after a time lapse). We use the method, which small and coherent helps to accomplish this.

• Cost- effectiveness: Its cost is under the budget and make within given time. It is desirable to aim for a system with a minimum cost subject to the condition that it must satisfy the entire requirement.

Scope of this document is to put down the requirements, clearly identifying the information needed by the user, the source of the information and outputs expected from the system.

SRS

A Software Requirements Specification (SRS) is a complete set of information about the system on which the developed project will be running. It includes all the hardware as well as the recommended system requirement for running the software is also mentioned in detail separately. The aim of this document is to gather and analyze and give in-depth insight of the complete software requirement of our project ANTI-ENIGMA.

a Hardware Required:

- Processor: Intel i3 or Above
- RAM: 2GB or above
- Hard Disk: 1 GB or above
- Input Devices: Keyboard, Mouse
- Output Devices: Monitor

b Software Required:

- Operating System: Linux, Ubuntu, Windows 10
- Frontend: HTML, CSS, JavaScript, Bootstrap
- Backend: Python
- Framework: Django
- IDE: Visual Studio Code

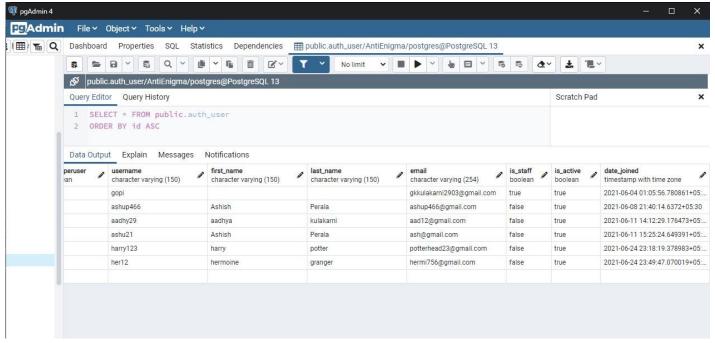
Project Database and Table

Database is critical for all businesses. A good database does not allow any form of anomalies and stores only relevant information in an ordered manner. If a database has anomalies, it is affecting the efficiency and data integrity. This fulfils the last objective of ensuring data are accurate and retrieved correctly.

Database files are the key source of information into the system. The files should be properly designed and planned for collection, accumulation, editing and retrieving the required information. The organization of data in database aims to achieve three major objectives:-

- Data integration
- Data integrity
- Data independence

Here in this project, we used databases for storing login credentials of the user and retrieve them accordingly. We used PostgreSQL and PgAdmin to store the details of the user.



Implementation of Code

- Folder Name: AntiEnigma
- **1. AntiEnigma :** All the main data required to run the server with linking all the other folders in the project are found here.

a.asgi.py:

```
ASGI config for AntiEnigma project.

It exposes the ASGI callable as a module-level variable named ``application``.

For more information on this file, see https://docs.djangoproject.com/en/3.2/howto/deployment/asgi/
"""

import os

from django.core.asgi import get_asgi_application

os.environ.setdefault('DJANGO_SETTINGS_MODULE', 'AntiEnigma.settings')

application = get_asgi_application()
```

b.settings.py:

```
Django settings for AntiEnigma project.

Generated by 'django-admin startproject' using Django 3.2.3.

For more information on this file, see https://docs.djangoproject.com/en/3.2/topics/settings/

For the full list of settings and their values, see https://docs.djangoproject.com/en/3.2/ref/settings/
"""

from pathlib import Path import os
```

```
# Build paths inside the project like this: BASE_DIR / 'subdir'.
BASE_DIR = Path(__file__).resolve().parent.parent
# Quick-start development settings - unsuitable for production
# See https://docs.djangoproject.com/en/3.2/howto/deployment/checklist/
# SECURITY WARNING: keep the secret key used in production secret!
SECRET_KEY = 'django-insecure- 6&z8(=bigf@-a-
r#6w90a&ig!^9%)%suxg$4bm73(_kcl@scx'
# SECURITY WARNING: don't run with debug turned on in production!
DEBUG = True
ALLOWED_HOSTS = []
# Application definition
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
MIDDLEWARE = [
    'django.middleware.security.SecurityMiddleware',
    'django.contrib.sessions.middleware.SessionMiddleware',
    'django.middleware.common.CommonMiddleware',
    'django.middleware.csrf.CsrfViewMiddleware',
    'django.contrib.auth.middleware.AuthenticationMiddleware',
    'django.contrib.messages.middleware.MessageMiddleware',
    'django.middleware.clickjacking.XFrameOptionsMiddleware',
ROOT_URLCONF = 'AntiEnigma.urls'
TEMPLATES = [
        'BACKEND': 'django.template.backends.django.DjangoTemplates',
        'DIRS': [os.path.join(BASE_DIR, 'templates')],
        'APP DIRS': True,
        'OPTIONS': {
```

```
'context processors': [
                'django.template.context_processors.debug',
                'django.template.context processors.request',
                'django.contrib.auth.context_processors.auth',
                'django.contrib.messages.context_processors.messages',
            ],
       },
    },
WSGI_APPLICATION = 'AntiEnigma.wsgi.application'
# Database
# https://docs.djangoproject.com/en/3.2/ref/settings/#databases
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.postgresql',
        'NAME': 'AntiEnigma',
        'USER': 'postgres',
        'PASSWORD': '7597',
        'HOST': 'localhost',
# Password validation
# https://docs.djangoproject.com/en/3.2/ref/settings/#auth-password-validators
AUTH_PASSWORD_VALIDATORS = [
        'NAME': 'django.contrib.auth.password validation.UserAttributeSimilarit
yValidator',
    },
        'NAME': 'django.contrib.auth.password validation.MinimumLengthValidator
        'NAME': 'django.contrib.auth.password_validation.CommonPasswordValidato
        'NAME': 'django.contrib.auth.password validation.NumericPasswordValidat
```

```
},
# Internationalization
# https://docs.djangoproject.com/en/3.2/topics/i18n/
LANGUAGE_CODE = 'en-us'
TIME_ZONE = 'UTC'
USE_I18N = True
USE_L10N = True
USE_TZ = True
# Static files (CSS, JavaScript, Images)
# https://docs.djangoproject.com/en/3.2/howto/static-files/
STATIC URL = '/static/'
STATICFILES DIRS = [
    os.path.join(BASE_DIR, 'static')
STATIC_ROOT = os.path.join(BASE_DIR, 'assets')
# Default primary key field type
# https://docs.djangoproject.com/en/3.2/ref/settings/#default-auto-field
DEFAULT_AUTO_FIELD = 'django.db.models.BigAutoField'
```

c.urls.py:

```
"""AntiEnigma URL Configuration

The `urlpatterns` list routes URLs to views. For more information please see:
    https://docs.djangoproject.com/en/3.2/topics/http/urls/
Examples:
Function views
    1. Add an import: from my_app import views
    2. Add a URL to urlpatterns: path('', views.home, name='home')
Class-based views
```

```
1. Add an import: from other_app.views import Home
2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
Including another URLconf
1. Import the include() function: from django.urls import include, path
2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
"""
from django import urls
import accounts
from django.contrib import admin
from django.urls import path, include

urlpatterns = [
    path('accounts/',include('accounts.urls')),
    path('', include('home.urls')),
    path('ddmin/', admin.site.urls),
]
```

d.wsgi.py:

```
WSGI config for AntiEnigma project.

It exposes the WSGI callable as a module-level variable named ``application``.

For more information on this file, see https://docs.djangoproject.com/en/3.2/howto/deployment/wsgi/
"""

import os

from django.core.wsgi import get_wsgi_application

os.environ.setdefault('DJANGO_SETTINGS_MODULE', 'AntiEnigma.settings')

application = get_wsgi_application()
```

e.manage.py:

```
#!/usr/bin/env python
"""Django's command-line utility for administrative tasks."""
import <u>os</u>
import <u>sys</u>
def main():
    """Run administrative tasks."""
    os.environ.setdefault('DJANGO_SETTINGS_MODULE', 'AntiEnigma.settings')
        from <u>django core management</u> import execute from command line
    except ImportError as exc:
        raise ImportError(
            "Couldn't import Django. Are you sure it's installed and "
            "available on your PYTHONPATH environment variable? Did you "
            "forget to activate a virtual environment?"
        ) from exc
    execute_from_command_line(sys.argv)
if <u>__name__</u> == '__main__':
    main()
```

2. Home: This folder contains all the data and code which is required to run the home page of the interface.

a.apps.py:

```
from django.apps import AppConfig

class HomeConfig(AppConfig):
    default_auto_field = 'django.db.models.BigAutoField'
    name = 'home'
```

b.admin.py:

```
from <u>django.contrib</u> import <u>admin</u>
# Register your models here.
```

c.urls.py:

```
from django.urls import path
from . import views

urlpatterns = [
    path('', views.index, name='index')
]
```

d.views.py:

```
from django.http.response import HttpResponse
from django.shortcuts import render
from django.http import HttpResponse

# Create your views here.
def index(request):
    return render(request, 'index.html')
```

3. Accounts: This folder has data and code for the login system, and it contains the data related to detection of malwares in the file.

a.apps.py:

```
from django.apps import AppConfig

class AccountsConfig(AppConfig):
    default_auto_field = 'django.db.models.BigAutoField'
    name = 'accounts'
```

b.urls.py:

```
from django.urls import path
from . import views

urlpatterns = [
    path('register', views.register, name='register'),
    path('upload', views.upload, name='upload'),
]
```

c.views.py:

```
from <u>django.contrib</u> import <u>messages</u>
from <u>django.shortcuts</u> import redirect, render
import <u>PIL</u>
```

```
from PIL import Image
from django.contrib.auth.models import User, auth
def register(request):
    if request.method == 'POST' :
        if request.POST.get('username2','')=='':
            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 already exists!!')
                    return redirect('register')
                elif User.objects.filter(email=email).exists():
                    messages.info(request, 'email taken!!')
                    return redirect('register')
                    user= User.objects.create_user(username=username, password=
password1, email=email, first_name=first_name, last_name=last_name)
                    user.save();
                    return redirect('upload')
                messages.info(request, 'passwords doesnt match')
                return redirect('register')
            username = request.POST['username2']
            password3 = request.POST['password3']
            user = auth.authenticate(username=username, password=password3)
            if user is not None:
                auth.login(request, user)
                return redirect('upload')
                messages.info(request, 'invalid credentials')
                return redirect('register')
        return render(request, 'login.html')
def upload(request):
    if request.method == 'POST':
        uploaded_file = request.FILES['document']
        print(type(uploaded_file))
```

```
print(uploaded_file.name)
        print(uploaded_file.size)
        img=uploaded_file.name
        print(type(img))
        #image = Image.open(img, 'r')
        image = <u>Image</u>.open(r"C:\Users\KITTU\steg2.png")
        data = ''
        imgdata = iter(image.getdata())
        while (True):
            pixels = [value for value in imgdata.__next__()[:3] + imgdata.__nex
t__()[:3] +imgdata.__next__()[:3]]
            # string of binary data
            print('adasfk')
            binstr = ''
            for i in pixels[:8]:
                if (i % 2 == 0):
                    binstr += '0'
                    binstr += '1'
            data += chr(int(binstr, 2))
            if (pixels[-1] % 2 != 0):
                messages.info(request, data)
                return redirect('upload')
               # return data
        return render(request, 'upload.html')
# PIL module is used to extract
# Convert encoding data into 8-bit binary
# form using ASCII value of characters
def genData(data):
        # list of binary codes
        newd = []
        for i in data:
            newd.append(format(ord(i), '08b'))
        return newd
# Pixels are modified according to the
# 8-bit binary data and finally returned
def modPix(pix, data):
```

```
datalist = genData(data)
    lendata = len(datalist)
    imdata = iter(pix)
    for i in range(lendata):
        pix = [value for value in imdata.__next__()[:3] +
                                 imdata.__next__()[:3] +
                                 imdata.__next__()[:3]]
        # Pixel value should be made
        # odd for 1 and even for 0
        for j in range(0, 8):
            if (datalist[i][j] == '0' and pix[j]% 2 != 0):
                pix[j] -= 1
            elif (datalist[i][j] == '1' and pix[j] % 2 == 0):
                if(pix[j] != 0):
                    pix[j] -= 1
                    pix[j] += 1
                # pix[j] -= 1
        # Eighth pixel of every set tells
        if (i == lendata - 1):
            if (pix[-1] \% 2 == 0):
                if(pix[-1] != 0):
                    pix[-1] -= 1
                    pix[-1] += 1
            if (pix[-1] \% 2 != 0):
                pix[-1] -= 1
        pix = \underline{tuple}(pix)
        yield pix[0:3]
        yield pix[3:6]
        yield pix[6:9]
def encode_enc(newimg, data):
    w = newimg.size[0]
```

```
(x, y) = (0, 0)

for pixel in modPix(newimg.getdata(), data):

# Putting modified pixels in the new image
    newimg.putpixel((x, y), pixel)
    if (x == w - 1):
        x = 0
        y += 1
    else:
        x += 1
```

4.Templates: It contains all the HTML files used for designing the web interface.

a.index.html: home page

```
{% load static %}
<!DOCTYPE html>
    Indus by TEMPLATE STOCK
    templatestock.co @templatestock
ated.co/license)
<html lang="en" class="no-js">
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <title>Anti-Enigma</title>
        <link rel="stylesheet" type="text/css" href="{% static 'css/bootstrap.m</pre>
in.css' %}" />
        <link rel="stylesheet" type="text/css" href="{% static 'css/et-</pre>
lineicon.css' %}" />
        <link rel="stylesheet" type="text/css" href="{% static 'css/font-</pre>
awesome.min.css' %}" />
        <link rel="stylesheet" type="text/css" href="{% static 'css/style.css'</pre>
%}" />
        <link href='http://fonts.googleapis.com/css?family=Roboto:400,500,400it</pre>
alic,500italic,700' rel='stylesheet' type='text/css'>
            <script src="http://html5shiv.googlecode.com/svn/trunk/html5.js"></</pre>
script>
```

```
</head>
        <!-- Preloader -->
        <div class="animationload">
            <div class="loader">
                Loading...
            </div>
        </div>
        <!-- End Preloader -->
                 HOME
        <section id="home">
            <div class="content">
                <div id="large-header" class="large-header">
                    <canvas id="demo-canvas"></canvas>
                    <div id="countdown_dashboard" class="home-main container">
                        <div class="row">
                             <div class="logo">
                                 <img src="{% static 'images/logo.png' %}" alt="</pre>
logo">
                                 <br>
                                 <br>
                                 <a href="accounts/register">LOGIN/REGISTER</a>
                             </div>
                        </div>
                    </div> <!-- END COUNTDOWN -->
                </div> <!-- LARGE HEADER -->
            </div> <!-- END CONTENT -->
        </section>
                 NEWSLETTER
        <section class="newsletter">
            <div class="container">
                <div class="row text-center">
                    <div class="col-md-6 col-md-offset-3 col-sm-8 col-sm-</pre>
offset-2">
                        <div class="main_content">
                             <h4><strong>Under Construction!</strong></h4>
```

```
Lorem Ipsum is simply dummy text of the printing
 and typesetting industry.
                              <div id="" class="confirm-message"></div>
                              <form id="" name="">
                                  <div class="input-group">
                                      <input class="form-control news-</pre>
input" type="text" name="subscribe_email" id="subscribe_email" placeholder="Ema
il" />
                                      <span class="input-group-btn">
                                          <button class="btn btn-custom news-</pre>
btn" id="" name="subscribe_btn"><span>Subscribe</span></button>
                                      </span>
                                  </div><!-- /input-group -->
                              </form><!-- END FORM -->
                         </div>
                     </div>
                 </div>
            </div>
        </section>
                  FEATURES
        <section class="features parallax" data-stellar-background-</pre>
ratio="0.7" id="features">
            <div class="container">
                 <div class="row text-center">
                     <div class="col-lg-4 col-md-4">
                         <div class="features-box">
                              <div class="open-overlay"><i class="icon-</pre>
lightbulb"></i></div>
                             \langle h4 \rangle ABOUT \langle /h4 \rangle
                         </div>
                     </div>
                     <div class="col-lg-4 col-md-4">
                         <div class="features-box">
                              <div class="open-overlay"><i class="icon-</pre>
ribbon"></i></div>
                              <h4>SERVICES</h4>
                         </div>
                     </div>
                     <div class="col-lg-4 col-md-4">
                         <div class="features-box">
                              <div class="open-overlay"><i class="icon-circle-</pre>
compass"></i></div>
```

```
<h4>CONTACT US</h4>
                         </div>
                     </div>
                </div>
            </div>
        </section>
                 CONTACT
        <section id="contact" class="contact">
            <div class="container">
                <div class="row">
                     <div class="col-lg-12 col-md-12">
                         <h4>Get In Touch</h4>
                         <div class="line-separate line-white text-</pre>
center"><span></span></div>
                     </div> <!-- end Our Location -->
                </div> <!-- end row -->
                <!-- CONTACT FORM -->
                <div id="cformSuccessMsg" style="display: none;" class="confirm</pre>
-message"></div>
                <form id="" name="contactForm" method="POST" >
                     <div class="row">
                         <div class="col-lg-4 col-md-4 col-lg-offset-2 col-md-</pre>
offset-2">
                             <input class="" type="text" name="contact_name" id=</pre>
"contact_name" placeholder="Name" />
                         </div> <!-- end Name -->
                         <div class="col-lg-4 col-md-4">
                             <input class="" type="text" name="contact email" id</pre>
="contact_email" placeholder="Email" />
                         </div> <!-- end Email -->
                     </div>
                     <div class="row">
                         <div class="col-lg-8 col-md-8 col-lg-offet-2 col-md-</pre>
offset-2">
                             <textarea name="contact_message" id="contact_messag</pre>
e" placeholder="Message"></textarea>
                         </div>
                     </div> <!-- end Message -->
                     <div class="row">
                         <div class="col-md-8 col-md-offset-2">
                             <div class="text-right">
```

```
<button class="btn btn-</pre>
custom" id="contact_submit_btn" name="contact_submit_btn"><span>Send Message</s</pre>
pan></button>
                          </div>
                       </div>
                   </div> <!-- end button -->
               </form><!-- END FORM -->
           </div> <!-- end container -->
       </section> <!-- end Contact -->
                FOOTER 
       <footer class="footer">
           <div class="container text-center">
               <div class="row">
                   <div class="col-md-12">
                       class="social-
btn" id="fb"><a href="#"><i class="fa fa-facebook"></i></a>
                          class="social-
btn" id="tw"><a href="#"><i class="fa fa-twitter"></i></a>
                          class="social-
btn" id="tbl"><a href="#"><i class="fa fa-tumblr"></i></a>
                          class="social-
btn" id="pin"><a href="#"><i class="fa fa-pinterest"></i></i></a>
                          class="social-
btn" id="flk"><a href="#"><i class="fa fa-flickr"></i></a>
                       </div>
               </div>
               <div class="row">
               </div>
           </div>
       </footer>
       <!-- JAVASCRIPTS -->
       <script src="{% static 'js/jquery.min.js' %}"></script>
       <script src="{% static 'js/jquery.lwtCountdown-1.0.js' %}"></script>
       <script src="{% static 'js/jquery.stellar.min.js' %}"></script>
       <script src="{% static 'js/jquery.nicescroll.min.js' %}"></script>
       <script src="{% static 'js/animated.js' %}"></script>
       <script src="{% static 'js/main.js' %}"></script>
   </body>
</html>
```

b.login.html: login page

```
{% load static %}
<!DOCTYPE html>
<html lang="es" dir="ltr">
    <meta name="viewport" content="width=device-width, user-</pre>
scalable=no, initial-scale=1.0">
    <meta charset="utf-8">
    <link rel="stylesheet" type="text/css" href="{% static 'css/stylelog.css' %</pre>
}"><link href="https://fonts.googleapis.com/css2?family=Montserrat:wght@400;700
;800&display=swap" rel="stylesheet">
  </head>
    <div class="main">
      <div class="container a-container" id="a-container">
        <form class="form" id="a-form" method="POST" action="register">
          {% csrf token %}
          <h2 class="form_title title">Create Account</h2>
          <input class="form__input" type="text" name="first_name" placeholder=</pre>
"Firstname">
          <input class="form__input" type="text" name="last_name" placeholder="</pre>
Lastname">
          <input class="form_input" type="text" name="username" placeholder="U</pre>
sername">
          cinput class="form__input" type="email" name="email" placeholder="Ema
il">
          <input class="form_input" type="password" name="password1" placehold</pre>
er="Password">
          <input class="form_input" type="password" name="password2" placehold</pre>
er="Confirm Password">
          <button class="form input" type="submit">SIGN UP</button>
          <div>
            {% for message in messages %}
             {{message}} 
            {% endfor %}
          </div>
        </form>
      </div>
      <div class="container b-container" id="b-container">
        <form class="form" id="b-form" method="POST" action="register">
          {% csrf token %}
          <h2 class="form title title">Sign in to Website</h2>
          <input class="form_input" type="text" name="username2" placeholder="</pre>
Username">
```

```
<input class="form_input" type="password" name="password3" placehold</pre>
er="Password">
        <button class="form_input" type="submit">SIGN IN</button>
        <div>
          {% for message in messages %}
           {{message}} 
          {% endfor %}
        </div>
       </form>
     </div>
     <div class="switch" id="switch-cnt">
       <div class="switch circle"></div>
       <div class="switch_circle switch_circle--t"></div>
       <div class="switch container" id="switch-c1">
        <h2 class="switch title title">BONJOUR!!</h2>
        Existing User??
        <button class="switch button button switch-btn">SIGN IN/button>
       </div>
       <div class="switch_container is-hidden" id="switch-c2">
        <h2 class="switch title title">HOLA!!</h2>
        New Here??
        <button class="switch button button switch-btn">SIGN UP/button>
       </div>
     </div>
   </div>
   <script src="{% static 'js/app.js' %}"></script>
 </body>
</html>
```

c.upload.html: web page used for uploading and detecting the malicious data.

```
<form class="form" id="a-</pre>
form" method="POST" action='upload' enctype="multipart/form-data">
        {% csrf_token %}
       <input class="" type="file" name="document">
        <button class="form__input" type="submit">SUBMIT</button>
       </form>
    </div>
     <div class="switch" id="switch-cnt">
       <div class="switch container" id="switch-c1">
         <h2 class="switch_title title">Malicious Data</h2>
         <div>
          {% for message in messages %}
          <h1> {{message}} </h1>
          {% endfor %}
        </div>
      </div>
    </div>
  </div>
  <script src="{% static 'js/app.js' %}"></script>
</body>
</html>
```

5. Static: This folder contains all the CSS, JavaScript, image, font, bootstrap files which are then recollected to assets folder.

CSS files:

a.style.css: for designing homepage.

```
.btn-custom:hover,.btn-custom:active,.btn-custom:focus{
   background-color: #3A3939;
   color: #fff;
   outline: none;
.parallax {
   background-position: 0 0;
   background-repeat: no-repeat;
   background-size: 100% auto;
   width: 100%;
   background-size: cover;
   background-attachment: fixed;
.animationload {
   position: fixed;
   top:0;
   Left:0;
   right:0;
   bottom:0;
   background-color:#fff;
   z-index:999999;
.loader {
   width:200px;
   height: 200px;
   font-size:0;
   position:absolute;
   Left:50%;
   top:50%;
   background-image:url(../images/Loading-79.gif);
   background-repeat:no-repeat;
   background-position:center;
   margin:-100px 0 0 -100px;
.logo{
   padding-bottom: 5%;
.logo p{
   color: #ffffff;
   padding-top: 20px;
   font-style: italic;
```

```
#home .large-header {
    background-
image: url("../images/pattern.png"),url('../images/2317965.jpg');
    background-position: center;
.home-main {
   position: absolute;
   margin: 0;
    padding: 0;
    text-align: center;
    top: 50%;
    left: 50%;
    -webkit-transform: translate3d(-50%,-50%,0);
    transform: translate3d(-50%,-50%,0);
#countdown_dashboard {
   display: block;
   margin: 0px auto;
    overflow: hidden
.dash {
   padding-bottom: 10px;
    position: relative;
    opacity: 1;
.dash title {
   font-size: 16px;
   width: 100%;
   color: #920909;
   display: block;
   clear: both;
.digit {
   color: #f9f9f9;
   font-size: 60px;
   font-weight: 300;
    display: inline-block;
    overflow: hidden;
    text-align: center;
   height: 110px;
    line-height: 110px;
    position: relative;
    vertical-align: middle;
  edia(max-height:360px) {
```

```
.digit {
       font-size: 30px;
       height: 50px;
       line-height: 50px;
Dmedia(max-width:560px) {
   #countdown_dashboard{
       min-width: 300px;
   .digit{
       font-size: 30px;
       height: 60px;
       line-height: 60px;
@media(min-width:560px) and (max-width: 1024px){
   .digit{
       font-size: 40px;
       height: 80px;
       line-height: 80px;
   }
.newsletter{
   padding: 100px 0px;
.newsletter h4,.newsletter p{
   margin: 0px;
.newsletter p{
   padding: 30px 0px;
.news-input{
   border: 3px solid #000;
   height: 45px;
   border-right: 0px;
   color: #000;
.news-input:focus{
   background:url("../images/pattern.png");
   border: 3px solid #000;
   border-right: 0px;
   outline: none;
```

```
box-shadow: none;
    color: #fff;
.news-btn{
   height: 45px;
   border: 3px solid #000;
   font-weight: 700;
   border-left: 4px solid #000;
.news-btn:hover{
   border-left: 3px solid #000;
.news-text{
   font-size: 16px;
   padding: 20px;
   color: rgb(0, 0, 0);
.newsletter .validation {
   border: 3px solid #ff0000;
.features{
    padding: 120px 0px 100px 0px;
.features h4{
    color: #fff;
#features{
    background:url("../images/pattern.png"),url("../images/bck1.jpg");
div.open-overlay {
   width: 80px;
   height: 80px;
   margin: 0 auto;
    -webkit-transition: all .6s ease 0s;
    -moz-transition: all .6s ease 0s;
    transition: all .6s ease 0s;
    -webkit-transform: rotate(45deg);
    -moz-transform: rotate(45deg);
    transform: rotate(45deg);
    text-align: center;
    color: #fff;
    border: solid 3px #fff;
    border-radius: 3px;
```

```
.open-overlay {
   font-size: 28px;
   line-height: 60px;
   width: 60px;
   height: 60px;
   margin-top: -60px;
   margin-left: -30px;
.open-overlay i {
   font-size: 32px;
   line-height: 70px;
   z-index: 2;
   margin: 0 auto;
   cursor: inherit;
   -webkit-transition: all .6s ease 0s;
   -moz-transition: all .6s ease 0s;
   transition: all .6s ease 0s;
   -webkit-transform: rotate(-45deg);
   -moz-transform: rotate(-45deg);
   transform: rotate(-45deg);
   color: inherit;
   background: rgba(255,255,255,.0);
.features-box:hover .open-overlay {
   -webkit-transform: rotate(0deg);
   -moz-transform: rotate(0deg);
   transform: rotate(0deg);
   background: rgba(255,255,255,1);
.features-box:hover .open-overlay i {
   -webkit-transform: rotate(0deg);
   -moz-transform: rotate(0deg);
   transform: rotate(0deg);
   color: #444;
   font-weight: bold;
.features-box h4{
   padding-top: 30px;
   text-transform: uppercase;
.features-box p{
   color: #bbbbbb;
   padding-top: 10px;
   margin-bottom: 0px;
```

```
Dmedia (max-width: 1000px){
   .features-box{
       padding-top: 50px;
  5.CONTACT
.contact{
   text-align: center;
   padding: 100px 0px;
.contact h4{
   font-size: 22px;
   line-height: 28px;
   margin-bottom: 10px;
   color: #000;
   text-transform: uppercase;
.contact p{
   color: #534F4F;
   font-size: 16px;
   margin-bottom: 0px;
   padding: 10px 0px 30px 0px;
.contact input {
   width: 100%;
   height: 43px;
   margin-bottom: 20px;
   line-height: 20px;
   padding-left: 15px;
   font-size: 15px;
   color: #000000;
.contact .validation{
   border: 1px solid #ff0000;
.contact textarea {
   width: 100%;
   height: 170px;
   margin-bottom: 15px;
   padding: 15px 55px 15px 15px;
   font-size: 15px;
   color: #000000;
   line-height: 28px;
```

```
textarea {
   resize: none;
.contact input:focus,.contact textarea:focus,.contact input:active,.contact tex
tarea:active{
   border: 1px solid #000;
   outline: none;
.confirm-message {
   margin-top: 20px;
   font-size: 18px;
   color: #000;
   padding: 10px 0 10px;
   text-transform: uppercase;
   display: none;
   text-align: center;
.line-separate {
   display: block;
   margin-bottom: 10px !important;
   width: 120px;
   height: 15px;
   position: relative;
   margin: 0 auto;
.line-white:before, .line-white:after {
   background: #000;
.line-separate:before {
   content: '';
   display: block;
   position: relative;
   top: 7px;
   width: 49px;
   height: 2px;
   margin: 0 !important;
   float: left;
.line-white span {
   box-shadow: inset 0px 0px 0px 2px #000;
.line-separate span {
   display: block;
   position: relative;
   width: 17px;
```

```
height: 17px;
   margin: 0 auto;
   transform: rotate(45deg);
   -webkit-transform: rotate(45deg);
   -moz-transform: rotate(45deg);
   -o-transform: rotate(45deg);
.line-separate:after {
   content: '';
   display: block;
   position: relative;
   top: -10px;
   width: 49px;
   height: 2px;
   margin: 0 !important;
   float: right;
.social li{
   margin: 0px 10px !important;
li.social-btn {
   width: 32px;
   height: 32px;
   margin: 0 auto;
   -webkit-transition: all .6s ease 0s;
    -moz-transition: all .6s ease 0s;
   transition: all .6s ease 0s;
   -webkit-transform: rotate(-45deg);
   -moz-transform: rotate(-45deg);
   transform: rotate(-45deg);
   text-align: center;
   color: #fff;
   border: solid 1px #000;
.social-btn {
   font-size: 16px;
   line-height: 30px;
   width: 30px;
   height: 30px;
   margin-top: -60px;
   margin-left: -30px;
.social-btn a{
   padding: 10px
social-btn a{
```

```
font-size: 15px;
    line-height: 17px;
    z-index: 2;
    margin: 0 auto;
    cursor: inherit;
    -webkit-transition: all .6s ease 0s;
    -moz-transition: all .6s ease 0s;
    transition: all .6s ease 0s;
    color: inherit;
    background: rgba(255,255,255,.0);
.social-btn a i{
    -webkit-transform: rotate(45deg);
    -moz-transform: rotate(45deg);
   transform: rotate(45deg);
    margin-left: -0.3em;
    margin-top: -0.1em;
.social-btn a i:last-of-type {
    margin-left: -0.5em;
    margin-top: -0.3em;
#fb{
    border: 2px solid #3b5998;
    color: #3b5998;
#fb a{
    color: #3b5998;
#fb:hover{
    background-color: #3b5998;
#fb:hover a{
    color: #fff;
#tw{
   border: 2px solid #00aced;
    color: #00aced;
#tw a{
    color: #00aced;
#tw:hover{
    background-color: #00aced;
#tw:hover a{
```

```
color: #fff;
#flk{
   border: 2px solid #ff0084;
   color: #ff0084;
#flk a{
   color: #ff0084;
#flk:hover{
   background-color: #ff0084;
#flk:hover a{
   color: #fff;
#tbl{
   border: 2px solid #32506d;
   color: #32506d;
#tbl a{
   color: #32506d;
#tbl:hover{
   background-color: #32506d;
#tbl:hover a{
   color: #fff;
#pin{
   border: 2px solid #cb2027;
#pin a{
   color: #cb2027;
#pin:hover{
   background-color: #cb2027;
#pin:hover a{
   color: #fff;
.footer{
    padding-bottom: 100px;
.copyright{
    padding-top: 10px;
```

}

b.stylelog.css: for designing the login page.

```
*, *::after, *::before {
   margin: 0;
   padding: 0;
   box-sizing: border-box;
   user-select: none;
 }
 /* Generic */
 body {
   width: 100%;
   height: 100vh;
   display: flex;
   justify-content: center;
   align-items: center;
   font-family: "Montserrat", sans-serif;
   font-size: 12px;
   background-color: #ecf0f3;
   color: #a0a5a8;
 }
 .main {
   position: relative;
   width: 1000px;
   min-width: 1000px;
   min-height: 600px;
   height: 600px;
   padding: 25px;
   background-color: #ecf0f3;
   box-shadow: 10px 10px 10px #c6ccd6, -10px -10px 10px #c6ccd6;
   border-radius: 12px;
   overflow: hidden;
 .container {
   display: flex;
   justify-content: center;
   align-items: center;
   position: absolute;
   top: 0;
   width: 600px;
   height: 100%;
   padding: 25px;
```

```
background-color: #d0d9e3;
  transition: 1.25s;
.form {
 display: flex;
 justify-content: center;
 align-items: center;
 flex-direction: column;
 width: 100%;
 height: 100%;
}
.form__icon {
 object-fit: contain;
 width: 30px;
 margin: 0 5px;
 opacity: 0.5;
  transition: 0.15s;
}
.form icon:hover {
 opacity: 1;
 transition: 0.15s;
  cursor: pointer;
}
.form_input {
 width: 350px;
 height: 40px;
 margin: 4px 0;
 padding-left: 25px;
 font-size: 13px;
  letter-spacing: 0.15px;
 border: none;
  outline: none;
 font-family: "Montserrat", sans-serif;
 background-color: #ecf0f3;
  transition: 0.25s ease;
 border-radius: 8px;
 box-shadow: inset 2px 2px 4px #d1d9e6, inset -2px -2px 4px #f9f9f9;
.form__input:focus {
 box-shadow: inset 4px 4px 4px #d1d9e6, inset -4px -4px 4px #f9f9f9;
.form__span {
 margin-top: 30px;
  margin-bottom: 12px;
```

```
.form__link {
  color: #181818;
 font-size: 15px;
 margin-top: 25px;
 border-bottom: 1px solid #a0a5a8;
 line-height: 2;
.title {
 font-size: 34px;
 font-weight: 700;
 line-height: 3;
 color: #181818;
}
.description {
 font-size: 14px;
 letter-spacing: 0.25px;
 text-align: center;
  line-height: 1.6;
}
.button {
 width: 180px;
 height: 50px;
 border-radius: 25px;
 margin-top: 50px;
 font-weight: 700;
 font-size: 14px;
 letter-spacing: 1.15px;
  background-color: #000000;
 color: #f9f9f9;
  box-shadow: 8px 8px 16px #d1d9e6, -8px -8px 16px #f9f9f9;
 border: none;
 outline: none;
 cursor: pointer;
}
.a-container {
 z-index: 100;
  left: calc(100% - 600px );
}
.b-container {
  left: calc(100% - 600px );
```

```
z-index: 0;
.switch {
  display: flex;
 justify-content: center;
 align-items: center;
  position: absolute;
  top: 0;
  Left: 0;
  height: 100%;
  width: 400px;
  padding: 50px;
 z-index: 200;
  transition: 1.25s;
  background-color: #d0d9e3;
  overflow: hidden;
  box-shadow: 4px 4px 10px #000000b0, -4px -4px 10px #000000b0;
}
.switch circle {
 position: absolute;
 width: 500px;
  height: 500px;
  border-radius: 50%;
  background-color: #ecf0f3;
  box-shadow: inset 8px 8px 12px #d1d9e6, inset -8px -8px 12px #2e2a2a;
  bottom: -60%;
  Left: -60%;
  transition: 1.25s;
.switch__circle--t {
 top: -30%;
  left: 60%;
 width: 300px;
 height: 300px;
}
.switch__container {
 display: flex;
 justify-content: center;
 align-items: center;
 flex-direction: column;
 position: absolute;
 width: 400px;
  padding: 50px 55px;
  transition: 1.25s;
```

```
.switch__button {
  cursor: pointer;
.switch__button:hover {
 box-shadow: 6px 6px 10px #d1d9e6, -6px -6px 10px #f9f9f9;
 transform: scale(0.985);
 transition: 0.25s;
.switch__button:active, .switch__button:focus {
 box-shadow: 2px 2px 6px #d1d9e6, -2px -2px 6px #f9f9f9;
 transform: scale(0.97);
 transition: 0.25s;
}
.is-txr {
 left: calc(100% - 400px );
 transition: 1.25s;
 transform-origin: left;
}
.is-txl {
 Left: 0;
 transition: 1.25s;
 transform-origin: right;
}
.is-z200 {
 z-index: 200;
 transition: 1.25s;
}
.is-hidden {
 visibility: hidden;
 opacity: 0;
 position: absolute;
 transition: 1.25s;
}
.is-gx {
 animation: is-gx 1.25s;
@keyframes is-qx {
 0%, 10%, 100% {
   width: 400px;
```

```
}
30%, 50% {
    width: 500px;
}
```

c.styleup.css: for designing uplod.html file.

```
@import url('https://fonts.googleapis.com/css');
k{
   margin:0;
   padding: 0;
   box-sizing: border-box;
   font-family: 'Poppins', sans-serif;
html,body{
   display:grid;
   height: 100%;
   place-items: center;
   text-align: center;
.container{
   height: 350px;
   width: 430px;
.container .wrapper{
   position: relative;
   height: 300px;
   width: 100%;
   border-radius: 10px;
   background: #fff;
   border: 2px double #c2cdda;
   display: flex;
   align-items: center;
   justify-content: center;
   overflow: hidden;
.wrapper .active{
   border: none;
.wrapper .image{
   position: absolute;
   height: 100%;
   width: 100%;
   display: flex;
   align-items: center;
    justify-content: center;
```

```
.wrapper .image img{
   height: 100%;
   width: 100%;
   object-fit: cover;
.wrapper .icon{
   font-size: 100px;
   color: #9658fe;
.wrapper .text{
   font-size: 20px;
   font-weight: 500;
   color: #5B5B7B;
.wrapper #cancel-btn{
   position: absolute;
   right: 15px;
   top: 15px;
   font-size: 20px;
   cursor: pointer;
   color: #9658fe;
   display: none;
.wrapper.active:hover #cancel-btn{
   display: block;
.wrapper #cancel-btn:hover{
   color: #e74c3c;
.wrapper .file-name{
   position: absolute;
   bottom: 0px;
   width: 100%;
   color: #fff;
   padding: 8px 0;
   font-size: 18px;
   display: none;
   background: linear-gradient(135deg, #3a8ffe 0%, #9658fe 100%);
.wrapper.active:hover .file-name{
   display: block;
.container #custom-btn{
   margin-top: 30px;
```

```
width: 100%;
   height: 50px;
   display: block;
   border: none;
   outline: none;
   border-radius: 25px;
   color: #fff;
   font-size: 18px;
   font-weight: 500;
   letter-spacing: 1px;
   text-transform: uppercase;
   cursor: pointer;
   background: linear-gradient(135deg, #3a8ffe 0%, #9658fe 100%);
.form {
   display: flex;
   justify-content: center;
   align-items: center;
   flex-direction: column;
   width: 100%;
   height: 32%;
 }
 .form icon {
   object-fit: contain;
   width: 30px;
   margin: 0 5px;
   opacity: 0.5;
   transition: 0.15s;
 .form__icon:hover {
   opacity: 1;
   transition: 0.15s;
   cursor: pointer;
 .form__input {
   width: 430px;
   height: 50px;
   margin: 4px 0;
   padding-left: 25px;
   font-size: 18px;
   letter-spacing: 0.5px;
   border: none;
   outline: none;
   font-family: "Montserrat", sans-serif;
   background: linear-gradient(135deg, #3a8ffe 0%, #9658fe 100%);
```

```
color: #fff;
 cursor: pointer;
 transition: 0.25s ease;
 border-radius: 25px;
 box-shadow: inset 2px 2px 4px #d1d9e6, inset -2px -2px 4px #f9f9f9;
.form__input:focus {
 box-shadow: inset 4px 4px 4px #d1d9e6, inset -4px -4px 4px #f9f9f9;
}
.form__span {
 margin-top: 30px;
 margin-bottom: 12px;
.form__link {
 color: #181818;
 font-size: 15px;
 margin-top: 25px;
 border-bottom: 1px solid #a0a5a8;
  line-height: 2;
```

RESULTS

a. Home Page:

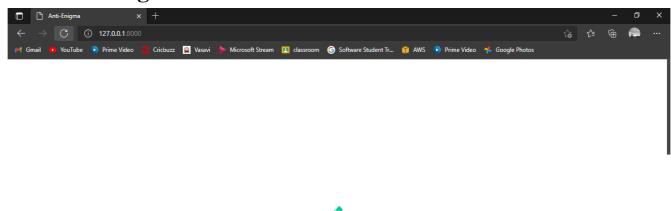


Fig 1: Loading

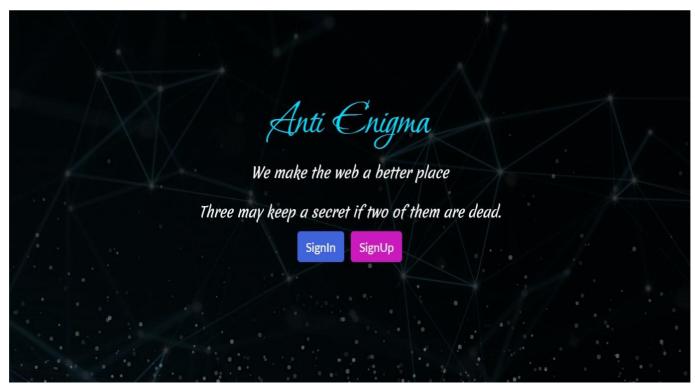


Fig 2: Welcome page

WHAT ARE WE - WHY US?

Hello, we're Anti-Engima, your new premium encryption-decryption service. We know that it's a matter of privacy and safeguarding your information. Dont worry! We're really good at it, we promise! So just Login, Upload, and Dive into fun!



SAFE AND SECURE

Never doubt us again! We really mean that. Our site is designed to value your safety. You can also save your history if needed and its completely private!!.



FAST NETWORK

You're only few seconds away from results. We work with the best algorithms and designs to ensure that you're 100% happy.



PRIVACY

All our intentions in designing this is completely to ensure the privacy of a citizen. We ensure 100% safety to our databases and information stored.



AN UPLOAD THATS IT!

We don't limit your creativity, which means you can upload any picture you doubt, whatever you feel like. We Help you with accurate results. It's up to you!

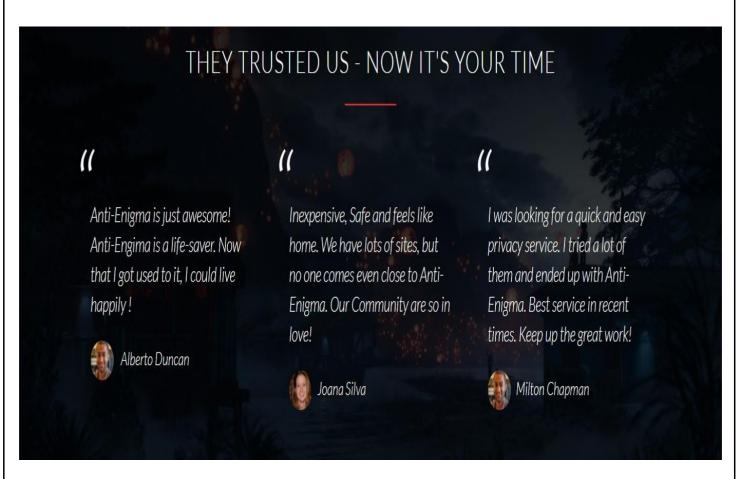


Fig 3 & 4: Features

b. Login Page:

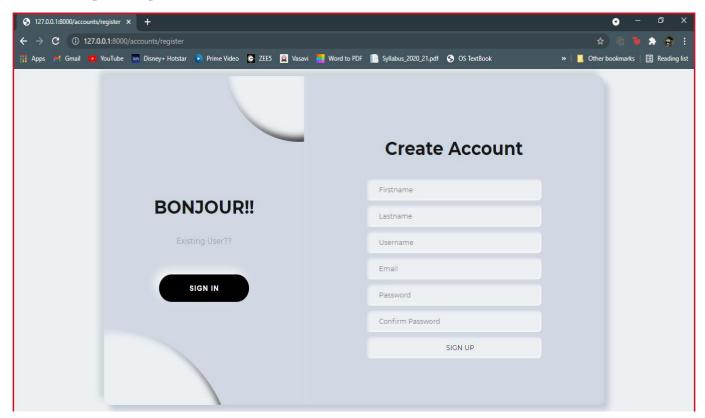


Fig 5:user registration

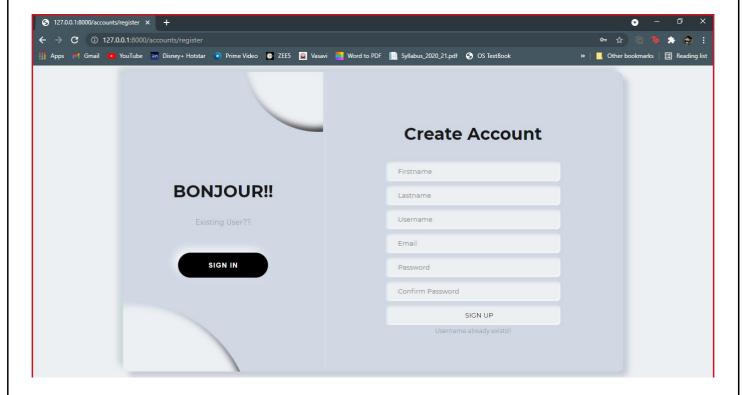


Fig 6: username already exists.

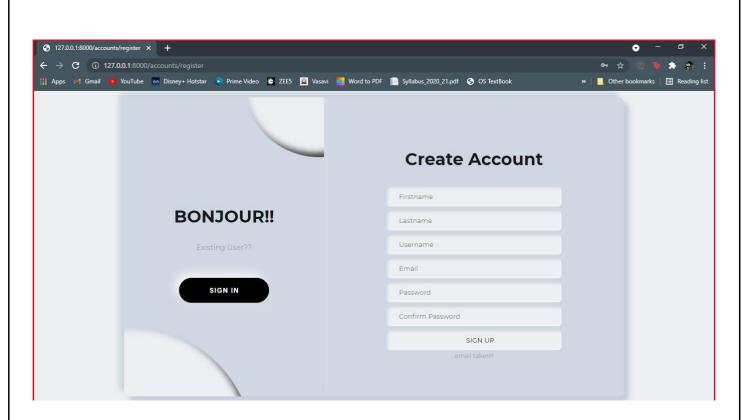


Fig 7: email taken.

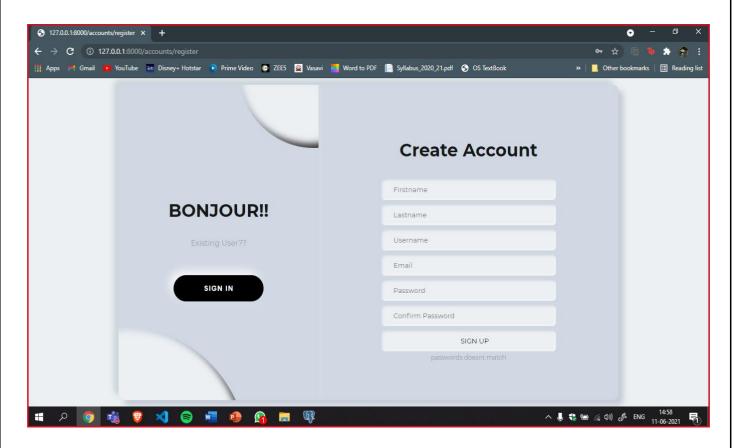


Fig 8: passwords do not match.

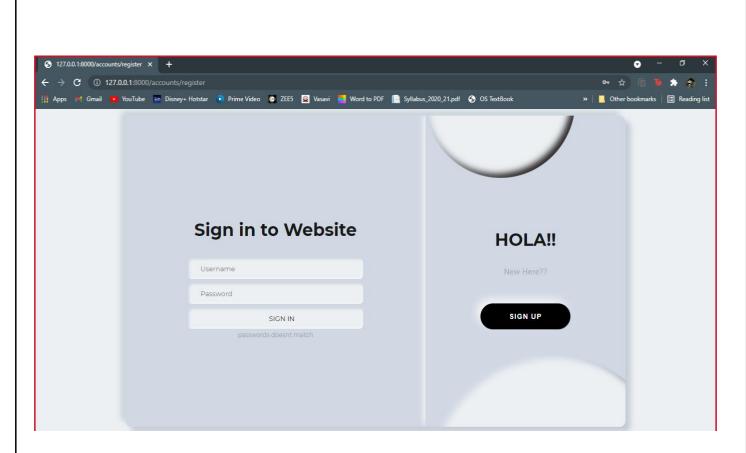


Fig 9: Sign in Page

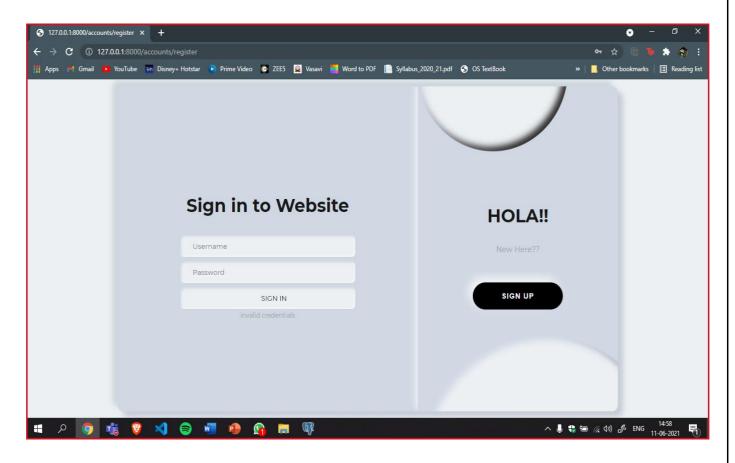


Fig 10: Invalid Credentials

c. Upload page:

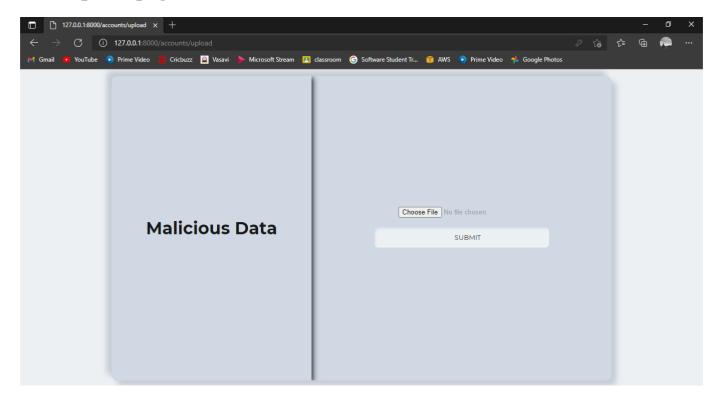


Fig 11: Upload a file

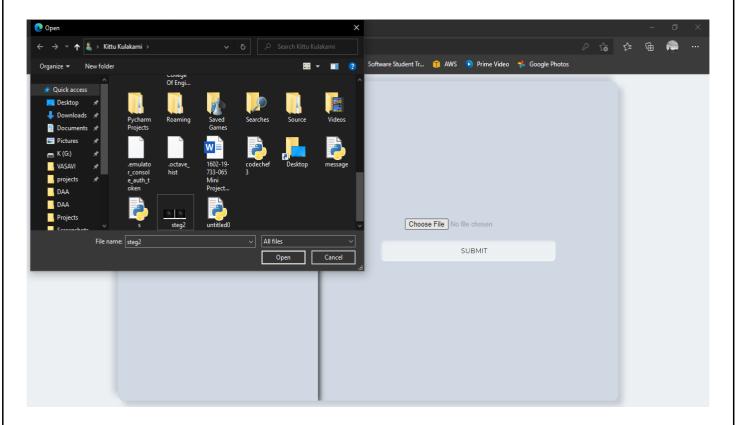


Fig 12: drop down box opens when we click choose file.

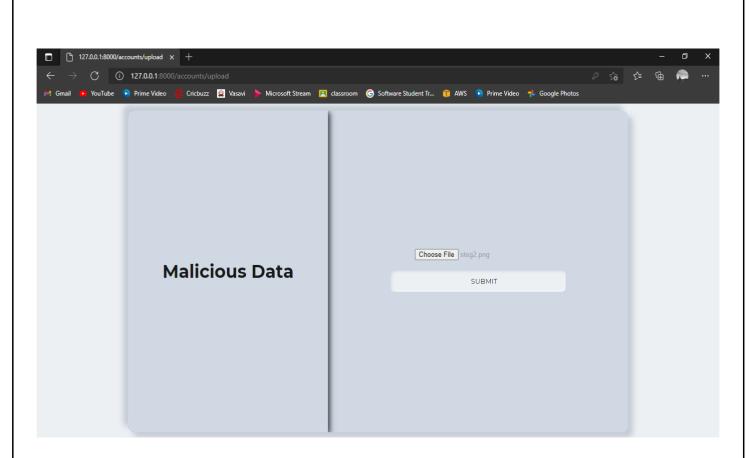


Fig 13: chosen file with extension is shown.

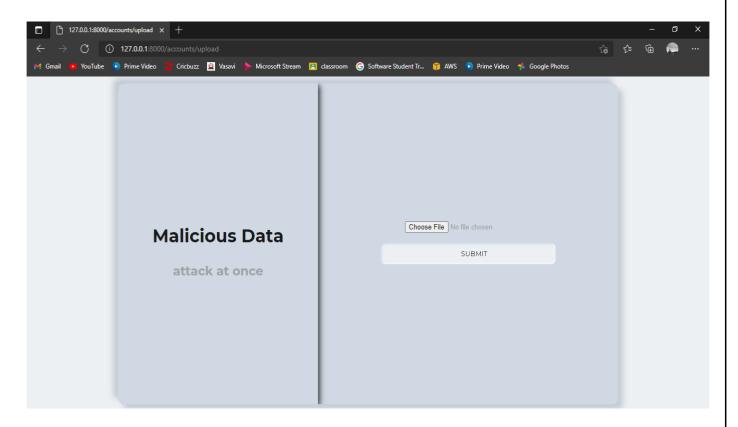


Fig 14: When clicked on submit, it displays the decoded text present in the file uploaded.

Technologies Used

Tools

- ✓ HTML
- ✓ CSS
- ✓ JavaScript
- ✓ Bootstrap
- ✓ Django
- ✓ PostgreSQL

a. UHTML

Every webpage you look at is written in a language called HTML. You can think of HTML as the skeleton that gives every webpage structure. In this course, we'll use HTML to add paragraphs, headings, images and links to a webpage.

In the editor to the right, there's a tab called test.html. This is the file we'll type our HTML into. Like any language, it has its own special syntax. A browser's job is to transform the code in test.html into a recognizable webpage! It knows how to lay out the page by following the HTML syntax.

b. GCSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language.[1] Most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging webpages, user interfaces for web applications, and user interfaces for many mobile applications.

CSS is designed primarily to enable the separation of document content from document presentation, including aspects such as the layout, colors, and fonts.[3] This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate .CSS file, and reduce complexity and repetition in the structural content.

c. BBootstrap

Bootstrap is a potent front-end framework used to create modern websites and web apps. It's open-source and free to use yet features numerous HTML and CSS templates for UI interface elements such as forms

typography, forms, buttons, navigation, and other interface components. Bootstrap also supports JavaScript extensions.

Responsive design makes it possible for a web page or app to detect the visitor's screen size and orientation and automatically adapt the display; accordingly, the mobile first approach assumes that smartphones, tablets and task-specific Mobile apps are employees' primary tools for getting work done and addresses the requirements of those technologies in design.

Bootstrap includes user interface components, layouts, and JS tools along with the framework for implementation. The software is available precompiled or as source code.

d. django Django

Django (named after the Django Reinhardt) is a high-level python-based free and open-source web framework that follows the model-view-template (MVT) architectural pattern. It is slightly different from the MVC pattern as it maintains its own conventions, so, the controller is handled by the framework itself. The template is a presentation layer. It is an HTML file mixed with Django Template Language (DTL). The developer provides the model, the view, and the template then maps it to a URL, and finally, Django serves it to the user.

Django can be broken into many components:

Models.py file: This file defines your data model by extending your single line of code into full database tables and add a pre-built administration section to manage content.

Urls.py file: It uses a regular expression to capture URL patterns for processing.

Views.py file: It is the main part of Django. The actual processing happens in view.

When a visitor lands on Django page, first Django checks the URLs pattern you have created and used the information to retrieve the view. After that view processes the request, querying your database if necessary, and passes the requested information to a template.

e. PostgreSQL

PostgreSQL, also known as Postgres, is a free and open-source relational database management system emphasizing extensibility and SQL compliance.

PostgreSQL features transactions with Atomicity, Consistency, Isolation, Durability (ACID) properties, automatically updatable views, materialized views, triggers, foreign keys, and stored procedures. It is designed to handle a range of workloads, from single machines to data warehouses or Web services with many concurrent users. It is the default database for macOS Server and is also available for Windows, Linux, FreeBSD, and OpenBSD.

FUTURE WORK

The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. It has a scope to run the entire work in a much better, accurate and error free manner.

The following are the future scope for the project.

- ✓ To enable more privacy facial recognition could be added.
- ✓ Mobile app can also be developed using Kivy Framework.
- ✓ We can also ensure to send emails and messages to the mobile instead of displaying the text on screen.

CONCLUSION

In conclusion, our interface provides high privacy for the users accessing and check them whenever they need to access it. The users can find malicious files and easily remove them if threat is found. In addition, it ensures to keep the data safe and protects the user from cyber threats.

REFERENCES

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