Team ID	PNT2022TMID33668
Project Name	A Novel Method for Handwritten Digit Recognition System

## CREATE HTML FILE

## **FORM PAGE(HTML):**

```
<!doctype html>
<html lang="en">
 <head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
    k rel="stylesheet" type="text/css" href="{{ url_for('static',filename='css/style.css')}}">
  <!-- Bootstrap CSS -->
  k rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous">
   <title>Handwritten Digit Recognition</title>
  <img src="{{ url_for('static', filename='images/registerimg2.jpg') }}" alt="" width="600"</pre>
height="650" style="margin-left: 100px;margin-right:0%;">
   <style>
*{
 margin: 0;
 padding: 0;
 box-sizing: border-box;
 font-family: 'Poppins', sans-serif;
```

```
}
body{
 height: 100vh;
 display: flex;
 justify-content: center;
 align-items: center;
 padding: 10px;
 background: linear-gradient(135deg, #71b7e6, #9b59b6);
}
. container \{\\
 max-width: 700px;
 margin-left: 0%;
 width: 100%;
 background-color: #fff;
 padding: 25px 30px;
 border-radius: 5px;
 box-shadow: 0 5px 10px rgba(0,0,0,0.15);
}
.container .title{
 font-size: 25px;
 font-weight: 500;
 position: relative;
.container .title::before{
 content: "";
 position: absolute;
```

```
left: 0;
 bottom: 0;
 height: 3px;
 width: 30px;
 border-radius: 5px;
 background: linear-gradient(135deg, #71b7e6, #9b59b6);
.content form .user-details{
 display:inline;
 flex-wrap: wrap;
justify-content: space-between;
 margin: 20px 0 12px 0;
}
           form .input-box span.details{
 display: block;
 font-weight: 500;
 margin-bottom: 5px;
}
.user-details .input-box input{
 height: 45px;
 width: 100%;
 outline: none;
 font-size: 16px;
 border-radius: 5px;
 padding-left: 15px;
 border: 1px solid #ccc;
```

```
border-bottom-width: 2px;
 transition: all 0.3s ease;
.user-details .input-box input:focus,
.user-details .input-box input:valid{
 border-color: #9b59b6;
form .gender-details .gender-title{
 font-size: 20px;
 font-weight: 500;
form .category{
 display: flex;
  width: 80%;
 margin: 14px 0;
 justify-content: space-between;
form .category label{
 display: flex;
 align-items: center;
 cursor: pointer;
form input[type="radio"]{
 display: none;
 }
form \ .button \{
```

```
height: 45px;
 margin: 35px 0
form .button input{
 height: 100%;
 width: 100%;
 border-radius: 5px;
 border: none;
 color: #fff;
 font-size: 18px;
 font-weight: 500;
 letter-spacing: 1px;
 cursor: pointer;
 transition: all 0.3s ease;
 background: linear-gradient(135deg, #71b7e6, #9b59b6);
}
form .button input:hover{
/* transform: scale(0.99); */
 background: linear-gradient(-135deg, #71b7e6, #9b59b6);
 }
@media(max-width: 584px){
.container{
 max-width: 100%;
form .user-details .input-box{
  margin-bottom: 15px;
```

```
width: 100%;
form .category{
width: 100%;
.content form .user-details{
 max-height: 300px;
 overflow-y: scroll;
. user-details ::- webkit-scrollbar \{\\
width: 5px;
@media(max-width: 459px){
.container .content .category{
flex-direction: column;
         </style>
</head>
<body class="bg-nav">
 <div class="container">
  <div class="title">Registration</div><br>
  <div class="content">
   <form method="post" action="/add_user">
    <div class="user-details">
```

```
<div class="input-box">
        <label>Username</label><br>
        <input type = "text" class="form-control" name="username" placeholder="Enter your name"</pre>
required>
       </div>
       <div class="input-box">
        <label>Email</label><br>
        <input type = "email" class="form-control" name="email" placeholder="Enter your email"</pre>
required>
       </div>
       <div class="input-box">
        <label>Password</label><br>
        <input type="password" class="form-control" name="password" placeholder="Enter your
password" required>
       </div>
       <div class="input-box">
        <label>Phone Number</label><br>
        <input type = "number" class="form-control" name="phone" placeholder="Enter your</pre>
number" required>
       </div>
       <div class="input-box">
        <label>Gender</label><br>
        <input type = "text" class="form-control" placeholder="Enter Male/Female/Others"</pre>
name="gender" required>
       </div>
       <div class="button">
        <input type="submit" class="btn btn-primary btn-block btn-lg" value="Register">
```

```
</div>
                   </div>
                       Already have an Account? <a href="/login"</pre>
class="reg">Login</a></h4>
                   </form>
           </div>
       </div>
    </body>
INDEX PAGE(HTML):
<!DOCTYPE html>
<html lang="en">
<head>
       <meta charset="UTF-8">
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
       <meta name="viewport" content="width=device-width, initial-scale=1.0">
       <title>User Account Dropdown Menu Using Html CSS & Vanilla Javascript</title>
       <link rel="stylesheet" href="style.css">
       link
href="https://fonts.googleapis.com/css2?family=Poppins:wght@200;300;400;600&display=swap"
rel="stylesheet">
       link
href="https://fonts.googleapis.com/css?family=Material+Icons|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Ou
ns+Two+Tone|Material+Icons+Round|Material+Icons+Sharp" rel="stylesheet">
       <style>
               *{
                       font-family: "poppins", sans-serif;
                       margin: 0;
```

```
padding: 0;
     }
.icons-size{
  color: white;
  font-size: 14px;
}
.text{
  position: fixed;
  right: 950px;
  top:22px
}
.action \{\\
  position: fixed;
  right: 1450px;
  top:20px
}
.action .profile{
  border-radius: 50%;
  cursor: pointer;
  height: 60px;
  overflow: hidden;
  position: relative;
  width: 60px;
```

```
.action .profile img{
  width: 100%;
  top:0;
  position: absolute;
  object-fit: cover;
  left: 0;
  height: 100%;
}
.action .menu{
  background-color:#FFF;
  box-sizing:0 5px 25px rgba(0,0,0,0.1);
  border-radius: 15px;
  padding: 10px 20px;
  position: absolute;
  left: -10px;
  width: 200px;
  transition: 0.5s;
  top: 120px;
  visibility: hidden;
  opacity: 0;
}
.action .menu.active{
  opacity: 1;
  top: 80px;
  visibility: visible;
```

```
.action .menu::before{
  background-color:#fff;
  content: ";
  height: 20px;
  position: absolute;
  right: 190px;
  transform:rotate(45deg);
  top:-5px;
  width: 20px;
}
.action .menu h3{
  color: #555;
  font-size: 16px;
  font-weight: 600;
  line-height: 1.3em;
  padding: 20px 0px;
  text-align: left;
  width: 100%;
}
.action .menu h3 div{
  color: #818181;
  font-size: 14px;
  font-weight: 400;
.action .menu ul li{
  align-items: center;
```

```
border-top:1px solid rgba(0,0,0,0.05);
  display: flex;
  justify-content: left;
  list-style: none;
  padding: 10px 0px;
}
.action .menu ul li img{
  max-width: 20px;
  margin-right: 10px;
  opacity: 0.5;
  transition:0.5s
}
.action .menu ul li a{
  display: inline-block;
  color: #555;
  font-size: 14px;
  font-weight: 600;
  padding-left: 15px;
  text-decoration: none;
  text-transform: uppercase;
  transition: 0.5s;
.action .menu ul li:hover img{
  opacity: 1;
}
.action .menu ul li:hover a{
```

```
color:#ff00ff;
}
.msg{}
  position: fixed;
  right: 950px;
  left:0px;
  top:250px
}
   .image {
    background-image: url("\{\{\ url\_for('static',\ filename='images/index2.jpg')\ \}\}");
     background-color: #ccccc;
     height: 753px;
     width: 1536px;
     background-position: center;
     background-repeat: no-repeat;
     background-size: cover;
  </style>
</head>
<body>
  <div class="image">
     <div class="action">
       <div class="profile" onclick="menuToggle();">
         <img src="{{ url_for('static', filename='images/user.jpg') }}" alt="">
           </div>
  <div class="menu">
```

```
<h3>
      User Account
    </h3>
    ul>
      <span class="material-icons icons-size">person</span>
        <a href="/register/">Sign-up</a>
      <
        <span class="material-icons icons-size">mode</span>
        <a href="/login">Sign-in</a>
      </div>
 </div>
<div class="text">
  <h1 style="color: white;">Handwritten digit Recognisor</h1>
</div>
<div class="msg">
  <h1 style="color: white;font-size: 50px;">
  Numbers
    Rule
    The
    Universe
```

```
</h1>
    </div>
   </div>
 <script>
    function menuToggle(){
      const toggleMenu = document.querySelector('.menu');
      toggleMenu.classList.toggle('active')
    }
  </script>
</body>
LOGIN PAGE(HTML):
<!doctype html>
<html lang="en">
 <head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  k rel="stylesheet" type="text/css" href="{{ url_for('static',filename='css/style.css')}}">
  <!-- Bootstrap CSS -->
  link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"\\
crossorigin="anonymous">
  link
href="https://fonts.googleapis.com/css2?family=Poppins:wght@200;300;400;600&display=swap"
rel="stylesheet">
```

```
link
href="https://fonts.googleapis.com/css?family=Material+Icons|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Outlined|Material+Icons+Ou
ns+Two+Tone|Material+Icons+Round|Material+Icons+Sharp" rel="stylesheet">
        <title>Handwritten Digit Recognition</title>
        <style>
            .image {
                background-image: url("{{ url_for('static', filename='images/loginimg2.jpg') }}");
                background-color: #ccccc;
                height: 753px;
                background-position: center;
                background-repeat: no-repeat;
                background-size: cover;
                position: relative;
             }
        </style>
    </head>
    <body class="bg-nav">
        <div class="image">
        <div id="content" >
                <div class="container">
                     <br>><br>>
                     <h1 style="text-align:center;">Sign In</h1>
                     <div class="row">
                         <div class="col-md-6" style="margin-left: 300px;">
                                 <div class="card">
                                      <div class="card-body" style="border:2px solid black">
```

```
<form class="form" method="post" action="/login_validation">
           <label>Email</label><br>
           <input type = "email" class="form-control" name="email"><br>
           <label>Password</label><br>
           {% if error %}
           <strong>Error</strong>: {{error}}
           {% endif %}
           <input type="submit" class="btn btn-primary btn-block btn-lg" value="Login">
          </form>
          <br>>
           Not a member? <a</pre>
href="/register/">Create Account</a>
         </div>
        </div>
      </div>
     </div>
    </div>
  </div>
  </div>
<!-- Optional JavaScript -->
  <!-- jQuery first, then Popper.js, then Bootstrap JS -->
  <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-</pre>
q8i/X + 965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH + 8abtTE1Pi6jizo"\\
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.7/dist/umd/popper.min.js"</pre>
integrity="sha384-
```

```
UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/bootstrap.min.js"</pre>
integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>
 </body>
</html>
HOME PAGE (HTML):
<!DOCTYPE html>
<html lang="en">
 <head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
    link rel="stylesheet" type="text/css" href="{{ url_for('static',filename='css/style.css')}}">
  <!-- Bootstrap CSS -->
  k rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous">
     <title>Handwritten Digit Recognition</title>
 </head>
<body>
<div class="bg-nav text-light d-flex flex-column flex-md-row align-items-center p-3 px-md-4 mb-3</p>
bg-dark border-bottom shadow-sm" >
 <h5 class="my-0 mr-md-auto" style="color: black;font-weight: bolder;">Handwritten Digit
Recognisor</h5>
```

```
<a class="btn btn-outline-primary" href="/logout" style="color: whitesmoke;">Log Out</a>
</div>
    <main role="main">
    <section class="album py-3 text-center">
  <form action="/predictpage" method="post">
   <div class="button">
    <input type="submit" class="btn btn-primary btn-block btn-lg" value="Proceed to recognise the
handwritten digits">
   </div>
  </form>
 </section>
    <div class="jumbotron py-8 bg-dark">
  <div class="container">
           <div class="row">
     <div class="card mb-2 shadow-sm">
        <div class="card-body" style="border:5px solid black;">
        <h3 style="text-align: center;">Description</h3><br>
        The handwritten digit recognition is the ability
of computers to recognize human handwritten digits.
         It is a hard task for the machine because handwritten digits are not perfect, vary from
person-to-person and can be made with many different flavors.
         The handwritten digit recognition is the solution to this problem which uses the image of a
digit and recognizes the digit present in the image.
      </div>
     </div><br><br>>
   </div>
```

</div>

```
</div>
</main>
    <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-</pre>
q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.7/dist/umd/popper.min.js"</pre>
integrity="sha384-
UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/bootstrap.min.js"</pre>
integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>
</body>
</html>
HOME PAGE (CSS):
.bg-nav
  background: #e704c9; /* fallback for old browsers */
  background: -webkit-linear-gradient(to right, #E5E5BE, #db0ac2); /* Chrome 10-25, Safari 5.1-6
*/
  background: linear-gradient(to right, #E5E5BE, #f104b6); /* W3C, IE 10+/ Edge, Firefox 16+,
Chrome 26+, Opera 12+, Safari 7+ */
}
.row{
  margin-top:80px;
}
```

## PREDICT PAGE (HTML):

```
<!DOCTYPE html>
<html lang="en">
 <head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
           k rel="stylesheet" type="text/css" href="{{
url_for('static',filename='css/style.css')}}">
  <!-- Bootstrap CSS -->
  k rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous">
       <title>Handwritten Digit Recognition</title>
 </head>
<body>
<div class="bg-nav text-light d-flex flex-column flex-md-row align-items-center p-3 px-md-4 mb-3</pre>
bg-dark border-bottom shadow-sm" >
 <h5 class="my-0 mr-md-auto" style="color: black;font-weight: bolder;">Handwritten Digit
Recognisor</h5>
 <a class="btn btn-outline-primary" href="/logout" style="color: whitesmoke;">Log Out</a>
</div>
<main role="main">
 <section class="album py-3 text-center">
  <form action="/predictpage" method="post">
   <div class="button">
```

```
<input type="submit" class="btn btn-primary btn-block btn-lg" value="Proceed to recognise the handwritten digits">
```

```
</div>
</form>
</section>
</div class="jumbotron py-8 bg-dark">

<div class="container">

<div class="row">

<div class="card mb-2 shadow-sm">

<div class="card-body" style="border:5px solid black;">

<h3 style="text-align: center;">Description</h3><br>
```

The handwritten digit recognition is the ability
of computers to recognize human handwritten digits.

It is a hard task for the machine because handwritten digits are not perfect, vary from person-to-person and can be made with many different flavors.

The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image.

	="anonymous">	
<script sı<="" th=""><th>rc="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/b</th><th>pootstrap.min.js"</th></tr><tr><th>integrity="s</th><th></th><th></th></tr><tr><th></th><th>0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0</th><th>0xIM+B07jRM"</th></tr><tr><td>crossorigin=</td><td>="anonymous"></script> <td></td>		