

Application Programming Practical File



Submitted By:
Name: Ansh Tyagi
Branch: IT
Roll Number: 11912079

INDEX

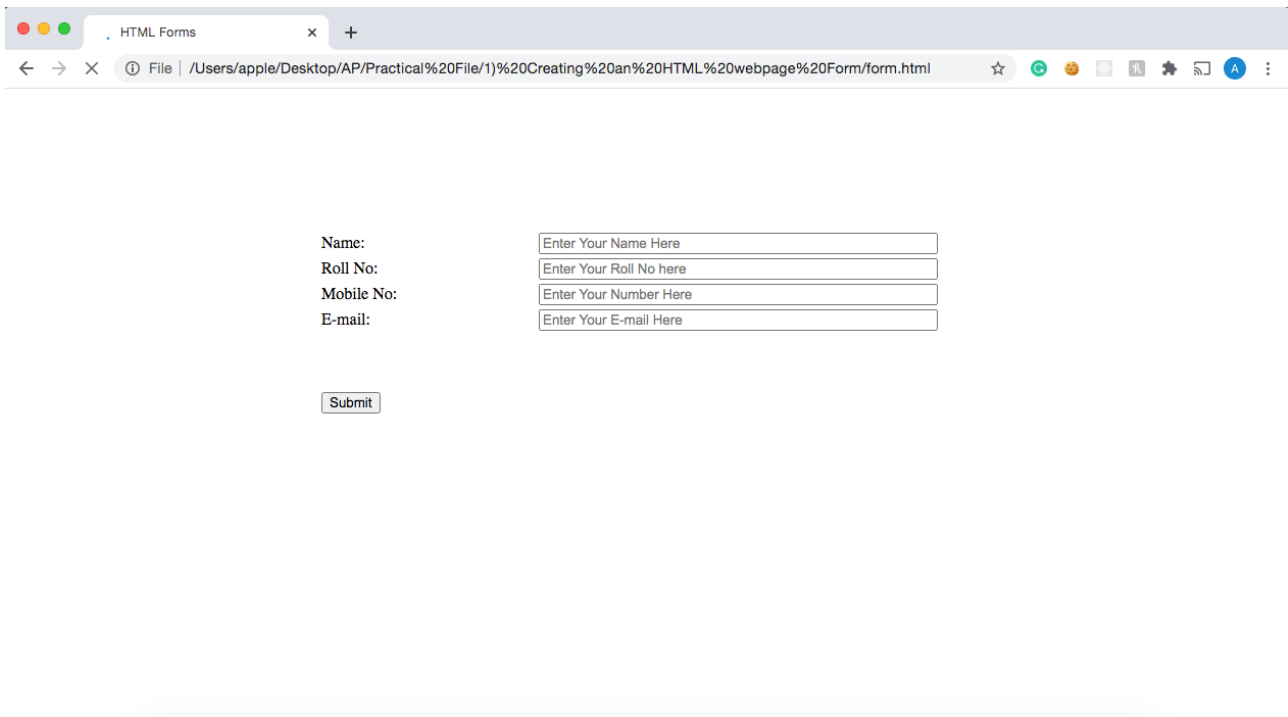
S.No.	Program	Page No.
1	Creating a HTML Page Form	2
2	Creating HomePage using HTML	4
3	Creating XHTML and CSS and understanding its use in creating web pages	6
4	Setting up and configuration of Apache Tomcat server	8
5	Creating Websites using PHP	10
6	Understanding JS	11
7	Creating a Web Page BackEnd in PHP and FrontEnd in JS	13
8	Writing and understanding program in Python	16
9	Use Python Libraries like Math statistics to create programs for scientific calculations	17

Program 1. Creating a HTML Page Form

Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
<meta charset="utf-8">
<title>HTML Forms</title>
<style >
  body{ background-color : white; }
  .success{ margin :0px 300px 200px 300px ;
  }
  .container{ margin : auto;
  background-color: white;}
  input[type=text],input[type=email]{ width : 90%;
  }
  .body{ padding : 20px;
  text-align :center;
  }
</style>
</head>
<body>
<div class="body">
  
</div>
<div class="success">
  <form class="" method="post">
    <div class="container">
      <table width="100%">
        <tr>
          <td>Name:</td>
          <td><input type="text" placeholder="Enter Your Name Here" required></td><br>
        </tr>
        <tr>
          <td>Roll No:</td>
          <td> <input type="text" placeholder="Enter Your Roll No here" required></td><br>
        </tr>
        <tr>
          <td>Mobile No:</td>
          <td><input type="text" placeholder="Enter Your Number Here" required></td><br>
        </tr>
        <tr>
          <td>E-mail:</td>
          <td><input type="email" placeholder="Enter Your E-mail Here" required></td><br>
        </tr>
      </table>
      <br><br><br>
      <table width="100%">
        <tr>
          <center>
            <td><input type="submit" value="Submit"></td>
          </center>
        </tr>
      </table>
    </div>
  </form>
</div>
</body>
</html>
```

Output:



A screenshot of a web browser window titled "HTML Forms". The address bar shows the file path: `File | /Users/apple/Desktop/AP/Practical%20File(1)%20Creating%20an%20HTML%20webpage%20Form/form.html`. The browser interface includes standard navigation buttons (back, forward, close), a star icon for bookmarks, and a toolbar with various utility icons. The main content area displays a simple HTML form with the following elements:

- Name:**
- Roll No:**
- Mobile No:**
- E-mail:**
-

Program 2: Creating HomePage using HTML

Code:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<html>
<head>
    <title></title>
</head>
<frameset rows="10%, 80%, 10%">
    <frame name="top" src="/Users/apple/Desktop/AP/top.html" />
    <frame name="middle" src="/Users/apple/Desktop/AP/frame1.html" />
    <frame name="bottom" src="/Users/apple/Desktop/AP/bottom.html" />
</frameset>
</html>
```

top.html:

```
<!DOCTYPE html>
<html>
<head>
    <title></title>
</head>
<body bgcolor="#c85528">
    <center><p style="font-size:30px; margin-top: 15px" >IIIT Sonapat</p></center>
</body>
</html>
```

frame1.html

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<html>
<head>
    <title></title>
</head>

<frameset cols="20%, 60%, 20%">
    <frame name="details" src="/Users/apple/Desktop/AP/details.html"></frame>
    <frame name="image" src="/Users/apple/Desktop/AP/img.html"></frame>
    <frame name="assignment" src="/Users/apple/Desktop/AP/assignment.html"></frame>
</frameset>
</html>
```

bottom.html:

```
<!DOCTYPE html>
<html>
<head>
    <title></title>
</head>
<body bgcolor="c85528">
    <p align="right">Contact Detail: iitsonepat@gmail.com</p>
</body>
</html>
```

Output:



Program 3:Creating XHTML and CSS and understanding its use in creating web pages

Code:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html lang="en" dir="ltr">
  <head>
    <title>Registration Form</title>
    <link rel="stylesheet" href="style.css">
  </head>
  <body>

<center></center>
  <div class="acc">
    <h1>Create Your Account</h1>
  </div>
  <div>
    <div class="dv">
<form method="post">
  <table width="100%">
    <th><label>First Name</label>
    <input type="text" placeholder="Enter your Firstname here"></th>
    <th><label for="">Last Name</label>
    <input type="text" placeholder="Enter your Lastname here"></th>
  </table>
  <br>
<div>
  <label class="abc"><b>E-mail:</b></label>
<br>
<input type="email" placeholder="Enter your email here">
<br>
<label class="abc">Gender:</label>
<input type="radio" name="ab" value="male">Male
<input type="radio" name="ab" value="female">Female
<input type="radio" name="ab" value="others">Others
<br>
</div>
<hr>
<table width="100%">
  <th><input type="submit" value="Register"></th>
  <th><input type="reset" value="Clear"></th>
</table>
</form>
</div>
</div>
</body>
</html>
```

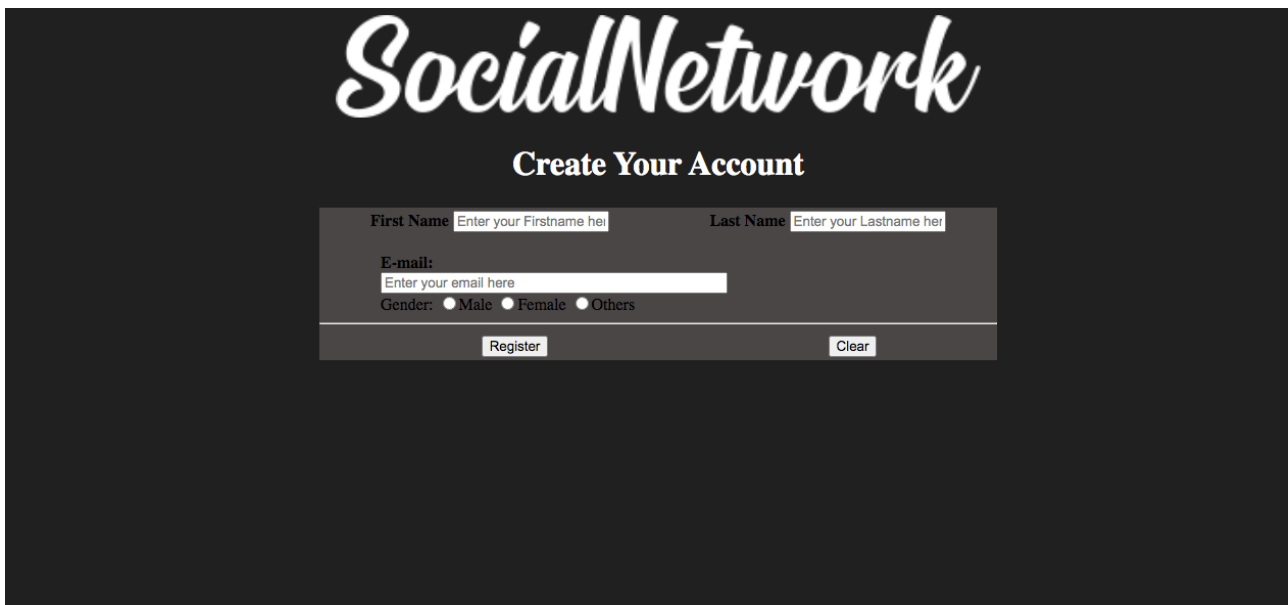
stylesheet.css:

```
.dv{ background-color:#4a4646;
margin: 0px 300px 300px 300px;}
.abc{margin-left: 60px;}

input[type=email]{width:50%;
margin-left: 60px;
}

body{background-color:#212020}
.acc{
color: white;
text-align: center;
text-shadow: 5px;
padding: 2px;
margin: auto;}
```

Output:



The image shows a web form titled "SocialNetwork" with the subtitle "Create Your Account". The form is set against a dark background. It includes input fields for "First Name" and "Last Name", an "E-mail" field, and a "Gender" section with radio buttons for "Male", "Female", and "Others". At the bottom, there are "Register" and "Clear" buttons.

SocialNetwork

Create Your Account

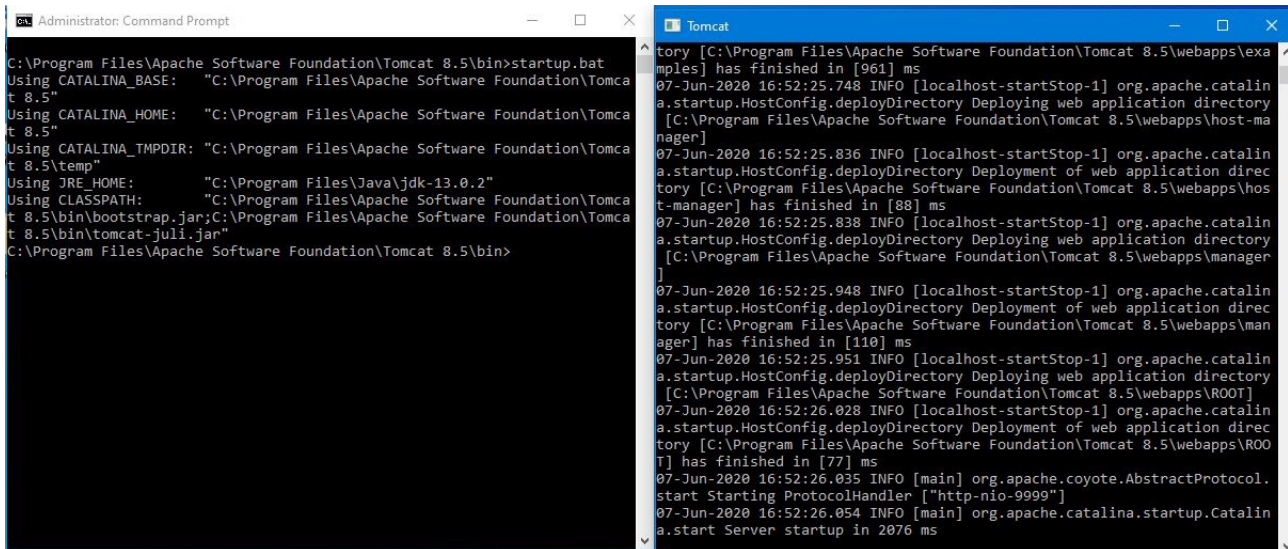
First Name Last Name

E-mail:

Gender: ☐ Male ☐ Female ☐ Others

Program 4: Setting up and configuration of Apache Tomcat server

STEPS:



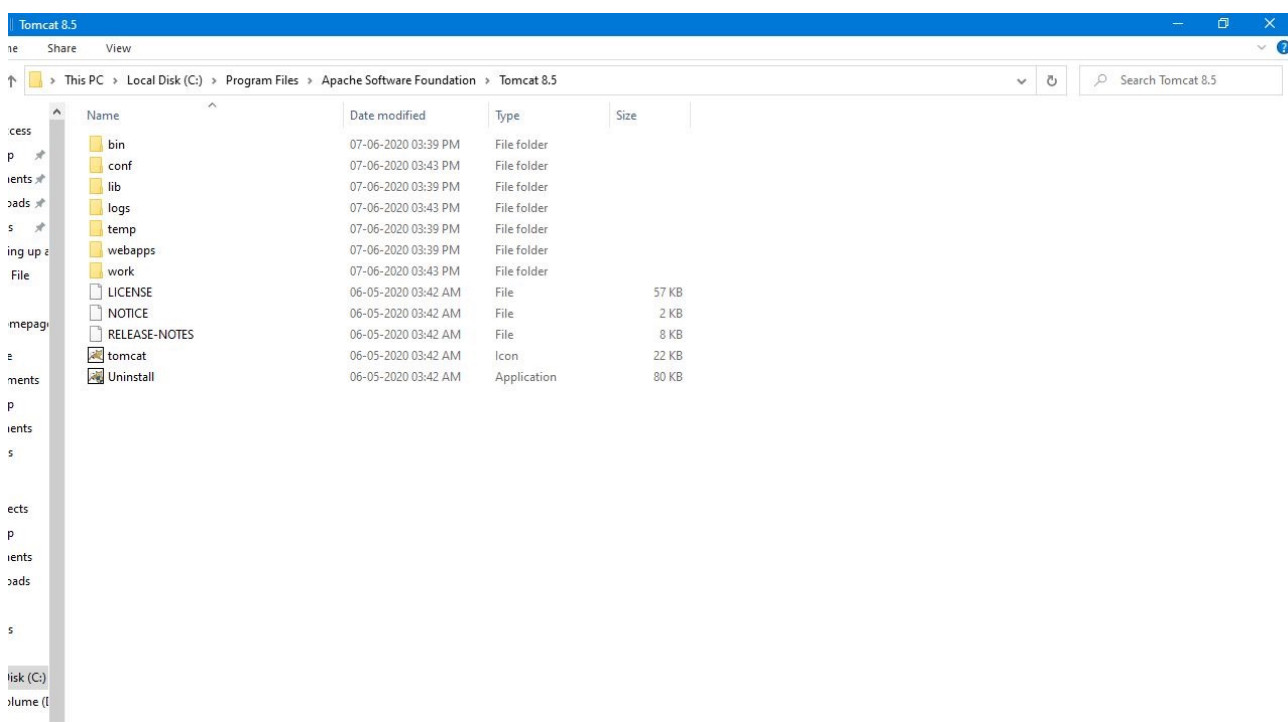
The first screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". It displays the execution of the command `C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin>start.bat`. The output shows the configuration of environment variables: `CATALINA_BASE`, `CATALINA_HOME`, `CATALINA_TMPDIR`, `JRE_HOME`, and `CLASSPATH`. The second screenshot shows a Windows window titled "Tomcat" displaying the startup logs. The logs show the deployment of web applications and the startup of the Catalina server.

```
C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin>start.bat
Using CATALINA_BASE:  "C:\Program Files\Apache Software Foundation\Tomcat 8.5"
Using CATALINA_HOME:  "C:\Program Files\Apache Software Foundation\Tomcat 8.5"
Using CATALINA_TMPDIR: "C:\Program Files\Apache Software Foundation\Tomcat 8.5\temp"
Using JRE_HOME:       "C:\Program Files\Java\jdk-13.0.2"
Using CLASSPATH:      "C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin\bootstrap.jar;C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin\tomcat-juli.jar"
C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin>
```

```
07-Jun-2020 16:52:25.748 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\host-manager]
07-Jun-2020 16:52:25.836 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\host-manager] has finished in [88] ms
07-Jun-2020 16:52:25.838 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\manager]
07-Jun-2020 16:52:25.948 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\manager] has finished in [110] ms
07-Jun-2020 16:52:25.951 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\ROOT]
07-Jun-2020 16:52:26.028 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\ROOT] has finished in [77] ms
07-Jun-2020 16:52:26.035 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["http-nio-9999"]
07-Jun-2020 16:52:26.054 INFO [main] org.apache.catalina.startup.Catalina.start Server startup in 2076 ms
```

```
<!-- The contents of this file will be loaded for each web application -->
<Context reloadable="true">

    <!-- Default set of monitored resources. If one of these changes, the web application will be reloaded. -->
    <WatchedResource>WEB-INF/web.xml</WatchedResource>
```



Apache Tomcat/8.5.55

localhost:9999

Apps

Gmail

YouTube

JavaScript Tutorial

DSSSB Exam Coachi...

Python Tutorial

C++ Programming...

Python Programmi...

M How to install a mis...

Home

Documentation

Configuration


Examples

Wiki


Mailing Lists

Find Help

Apache Tomcat/8.5.55



If you're seeing this, you've successfully installed Tomcat. Congratulations!



Recommended Reading:

[Security Considerations How-To](#)
[Manager Application How-To](#)
[Clustering/Session Replication How-To](#)

Server Status

Manager App

Host Manager

Developer Quick Start

[Tomcat Setup](#)
[First Web Application](#)

[Realms & AAA](#)
[JDBC Data Sources](#)

[Examples](#)

[Servlet Specifications](#)
[Tomcat Versions](#)

Managing Tomcat

For security, access to the [manager webapp](#) is restricted. Users are defined in:

```
$CATALINA_HOME/conf/tomcat-users.xml
```

In Tomcat 8.5 access to the manager application is split between different users.
[Read more...](#)

[Release Notes](#)
[Changelog](#)
[Migration Guide](#)

Documentation

[Tomcat 8.5 Documentation](#)
[Tomcat 8.5 Configuration](#)
[Tomcat Wiki](#)

Find additional important configuration information in:

```
$CATALINA_HOME/RUNNING.txt
```

Developers may be interested in:

[Tomcat 8.5 Bug Database](#)
[Tomcat 8.5 JavaDocs](#)

Getting Help

[FAQ and Mailing Lists](#)

The following mailing lists are available:

[tomcat-announce](#)
 Important announcements, releases, security vulnerability notifications. (Low volume).

[tomcat-users](#)
 User support and discussion

[taglibs-user](#)
 User support and discussion for [Apache Taglibs](#)

[tomcat-dev](#)
 Development mailing list, including commit

localhost:9999/docs/c

Page 9 of 18

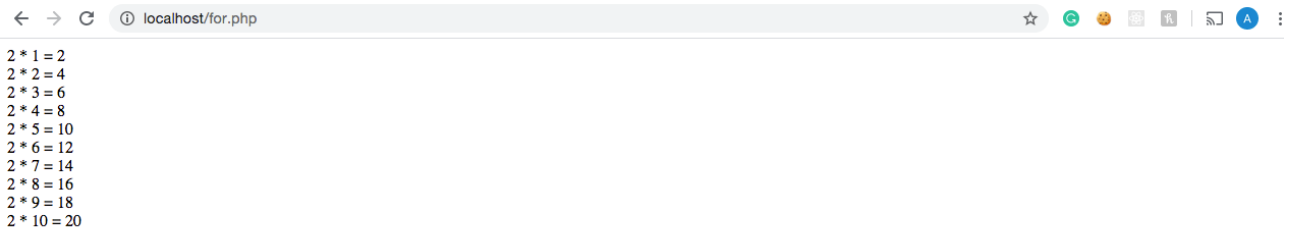
Program 5: Creating Websites using PHP

Code:

```
<html>
  <body>
    <?php
      $a = 2;

      for( $i = 1; $i<=10; $i++ ) {
        $temp = $a * $i;
        echo("$a * $i = $temp");
        echo("<br>");
      }
    ?>
  </body>
</html>
```

Output:



← → ↻ ⓘ localhost/for.php ☆ 🟢 🟡 🟠 🟣 🟤 🟦 ⓘ 🔍

```
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
2 * 8 = 16
2 * 9 = 18
2 * 10 = 20
```

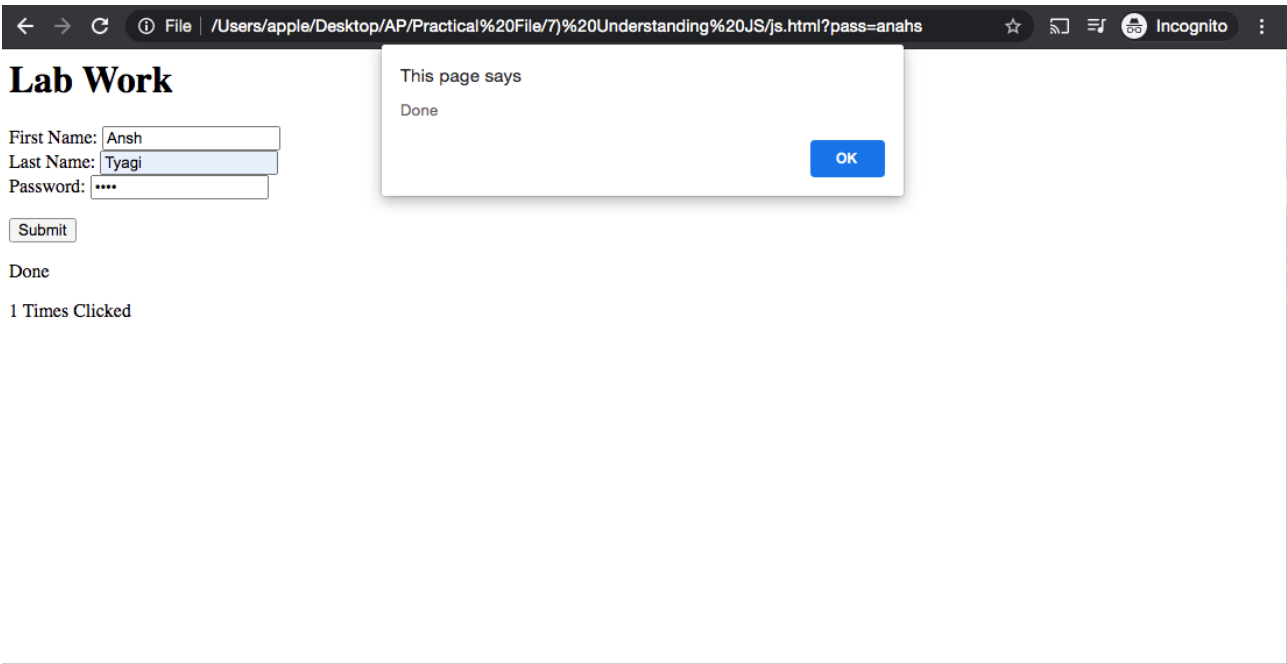
Program 6: Understanding JS

Code:

```
<html>
  <head>
    <title>Lab Work</title>
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
  </head>
  <div class="jumbotron text-center">
    <h1>Lab Work</h1>
  </div>
  <div class='container'>
    <form class="form-horizontal" name=form onsubmit="validateForm()">
      <div class="form-group">
        <label>First Name:</label>
        <input type='text' class='form-control' id='fname'>
      </div>
      <div class = 'form-group'>
        <label>Last Name:</label>
        <input type="text" class='form-control' id='lname'>
      </div>
      <div class="form-group">
        <label>Password:</label>
        <input type='password' class='form-control' id='pwd' name ="pass" required>
        <p class="checkpass"></p>
      </div>
      <button type="submit" class="btn btn-default" id="submit">Submit</button>
      <p id="state">NOT SUBMITTED</p>
      <p id="num"></p>
    </form>
  </div>
  <script>
    var submit = document.querySelector("#submit")
    var num_pressed = 0;
    var dis = document.querySelector("#num")
    dis.textContent = "0 times clicked"
    submit.addEventListener("click", function(){
      num_pressed++;
      dis.textContent = num_pressed + " Times Clicked";
      document.getElementById("state").innerHTML = "Done";
      alert("Done");
    })

    function validateForm(){
      var x = document.forms['form']['pass'].value;
      if(x==""){
        alert("error");
        return false;
      }
    }
  </script>
</html>
```

Output:



Program 7: Creating a Web Page BackEnd in PHP and FrontEnd in JS

Code:

```
<!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">
  <!-- Title Page-->
  <title>TedxIIITS Registration</title>
  <!-- Icons font CSS-->
  <link href="vendor/mdi-font/css/material-design-iconic-font.min.css" rel="stylesheet" media="all">
  <link href="vendor/font-awesome-4.7/css/font-awesome.min.css" rel="stylesheet" media="all">
  <!-- Font special for pages-->
  <link href="https://fonts.googleapis.com/css?family=Poppins:100,100i,200,200i,300,300i,400,400i,500,500i,600,600i,700,700i,800,800i,900,900i" rel="stylesheet">
  <link href="vendor/select2/select2.min.css" rel="stylesheet" media="all">
  <link href="vendor/datepicker/daterangepicker.css" rel="stylesheet" media="all">
  <link href="style.css" rel="stylesheet" media="all">
</head>
<body>
  <div class="page-wrapper bg-gra-01 p-t-180 p-b-100 font-poppins">
    <div class="wrapper wrapper-w780">
      <div class="card card-1">
        <div class="card-heading"></div>
        <div class="card-body">
          <h2 class="title">Registration Info</h2>
          <form method="POST" action="server.php">
            <div class="input-group">
              <input class="input-style" type="text" placeholder="Name" name="name">
            </div>
            <div class="input-group">
              <input class="input-style" type="text" placeholder="Roll No." name="rollno">
            </div>
            <div class="input-group">
              <input class="input-style" type="text" placeholder="Branch" name="branch">
            </div>
            <div class="input-group">
              <input class="input-style" type="email" placeholder="Email" name="email">
            </div>
            <div class="input-group">
              <input class="input-style" type="text" placeholder="Phone" name="phone">
            </div>
            <div class="p-t-10">
              <button class="btn btn-pill btn-red" type="submit">Submit</button>
            </div>
          </form>
        </div>
      </div>
    </div>
  </div>
</body>
</html>
```

server.php

```
<html>
<head><link rel="stylesheet" href="style.css"></head>
<body>
<div class="page-wrapper bg-gra-01 p-t-180 p-b-100 font-poppins">
<?php
    $name = $_POST["name"];
    $rollno = $_POST["rollno"];
    $branch = $_POST["branch"];
    $email = $_POST["email"];
    $phone = $_POST["phone"];

    $connection = new mysqli('localhost','root','', 'AP_Project');
    if($connection->connect_error){
        die('Connection Failed');
    }
    else{
        $stmt = $connection->prepare("Insert into
registration(name,rollno,branch,email,phone) values(?,?,?, ?, ?)");
        $stmt->bind_param("sissi", $name, $rollno, $branch, $email, $phone);
        $stmt->execute();
        $stmt->close();
        $connection->close();
    }
?>
<center><button class="btn btn-pill btn-red">DONE!</button></center>
</div>
</body>
</html>
```

Output:

Registration Info

Name _____

Roll No. _____

Branch _____

Email _____

Phone _____

Submit

TEDx IITS
x = independently organized TED event

Server: localhost - Database: AP_Project - Table: registration

Options: Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

	id	name	rollno	branch	email	phone
<input type="checkbox"/>	1	ansh	11912077	it	jshfk@hmaf.com	9879837234
<input type="checkbox"/>	2	Ansh	1232144	cse	tyagiansh23@gmail.com	7303677753
<input type="checkbox"/>	3	Ansh Tyagi	11912079	IT	tyagiansh23@gmail.com	7303677753

Query results operations: Print, Copy to clipboard, Export, Display chart, Create view


Bookmark this SQL query: Label: ☐ Let every user access this bookmark **Bookmark this SQL query**

Program 8: Writing and understanding program in Python

Code:

```
def add(x,y):  
    total = float(a)+float(b);  
    return total  
  
print("Enter two number:")  
a = input()  
b= input()  
print(add(a,b));
```

Output:



The screenshot shows a terminal window titled 'apple — bash — 80x24'. The prompt is '(base) APPLEs-MacBook-Pro:~ apple\$'. The user has run the command 'python /Users/apple/Desktop/AP/Practical\ File/9\)Writing\ and\ understanding\ program\ in\ Python/untitled.py'. The program prompts 'Enter two number:' and the user has entered '2' and '3' on separate lines. The program then outputs '5.0'. The prompt returns to '(base) APPLEs-MacBook-Pro:~ apple\$'.

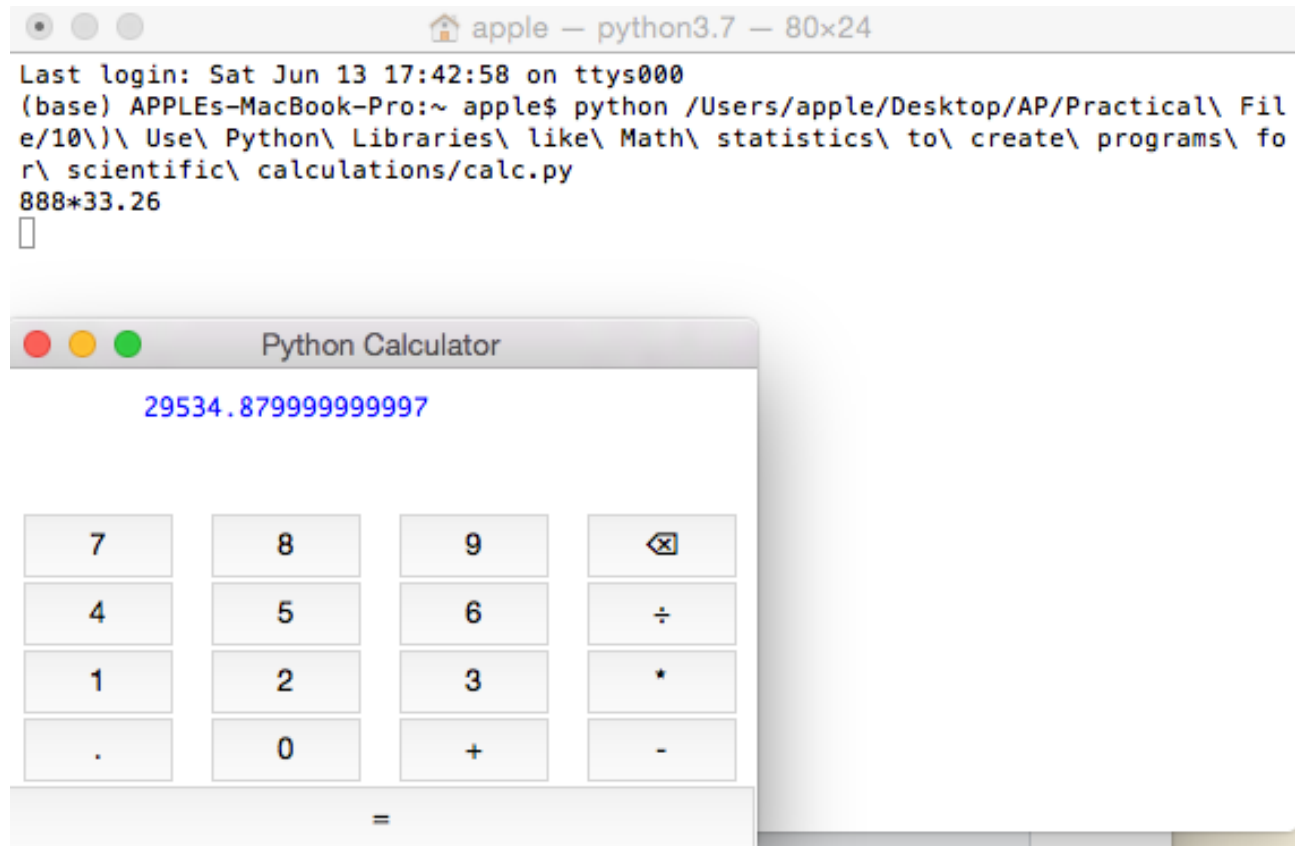
```
(base) APPLEs-MacBook-Pro:~ apple$ python /Users/apple/Desktop/AP/Practical\ File/9\)Writing\ and\ understanding\ program\ in\ Python/untitled.py  
Enter two number:  
2  
3  
5.0  
(base) APPLEs-MacBook-Pro:~ apple$
```

Program 9: Use Python Libraries like Math statistics to create programs for scientific calculations

Code:

```
from tkinter import *
class Calc:
    def __init__(self, master):
        self.master = master
        master.title("Python Calculator")
        self.screen = Text(master, state='disabled', width=30, height=3, background="white", foreground="blue")
        self.screen.grid(row=0, column=0, columnspan=4, padx=5, pady=5)
        self.screen.configure(state='normal')
        self.equation = ""
        b1=self.createButton(7)
        b2=self.createButton(8)
        b3=self.createButton(9)
        b4=self.createButton(u"\u232B", None)
        b5=self.createButton(4)
        b6=self.createButton(5)
        b7=self.createButton(6)
        b8=self.createButton(u"\u00F7")
        b9=self.createButton(1)
        b10=self.createButton(2)
        b11=self.createButton(3)
        b12=self.createButton("**")
        b13=self.createButton('.')
        b14=self.createButton(0)
        b15=self.createButton('+')
        b16=self.createButton('-')
        b17=self.createButton('=', None, 40)
        buttons = [b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, b13, b14, b15, b16, b17]
        count=0
        for row in range(1,5):
            for col in range(4):
                buttons[count].grid(row=row, column=col)
                count+=1
        buttons[16].grid(row=5, column=0, columnspan=4)
    def createButton(self, val, write=True, width=7):
        return Button(self.master, text=val, command=lambda : self.click(val, write), width=width, padx=5, pady=5)
    def click(self, text, write):
        if write == None:
            if text == '=' and self.equation:
                self.equation=re.sub(u"\u00F7", '/', self.equation)
                print(self.equation)
                ans = str(eval(self.equation))
                self.clear_screen()
                self.insert_screen(ans, newline=True)
            elif text == u"\u232B":
                self.clear_screen()
        else:
            self.insert_screen(text)
    def clear_screen(self):
        self.equation=""
        self.screen.configure(state='normal')
        self.screen.delete('1.0', END)
    def insert_screen(self, value, newline=False):
        self.screen.configure(state="normal")
        self.screen.insert(END, value)
        self.equation += str(value)
        self.screen.configure(state='disabled')
root = Tk()
my_gui = Calc(root)
root.mainloop()
```

Output:



The image shows two overlapping windows from a macOS environment. The top window is a terminal titled 'apple — python3.7 — 80x24'. It displays the following text: 'Last login: Sat Jun 13 17:42:58 on ttys000', '(base) APPLEs-MacBook-Pro:~ apple\$ python /Users/apple/Desktop/AP/Practical\ File/10\\)\ Use\ Python\ Libraries\ like\ Math\ statistics\ to\ create\ programs\ for\ scientific\ calculations/calc.py', and the result '888*33.26' followed by a cursor. The bottom window is titled 'Python Calculator' and shows the result '29534.879999999997' in blue text. Below the display is a numeric keypad with buttons for digits 0-9, a decimal point, and arithmetic operators (+, -, *, ÷). There is also a button with a left arrow and an 'x' icon. An equals sign button is located at the bottom of the keypad.

```
apple — python3.7 — 80x24
Last login: Sat Jun 13 17:42:58 on ttys000
(base) APPLEs-MacBook-Pro:~ apple$ python /Users/apple/Desktop/AP/Practical\ File/10\\)\ Use\ Python\ Libraries\ like\ Math\ statistics\ to\ create\ programs\ for\ scientific\ calculations/calc.py
888*33.26
█

Python Calculator
29534.879999999997

7 8 9 [X]
4 5 6 ÷
1 2 3 *
. 0 + -
=
```