Flask depends on the [Werkzeug](https://werkzeug.palletsprojects.com/) WSGI toolkit, the [Jinja](https://jinja.palletsprojects.com/) template engine, and the [Click](https://click.palletsprojects.com/) CLI toolkit. Be sure to check their documentation as well as Flask’s when looking for information.

# Required Tools:

* Visual Studio Code
* MySQL workbench/XAMPP
* Python

# Dependencies

## These distributions will be installed automatically when installing Flask.

* [Werkzeug](https://palletsprojects.com/p/werkzeug/) implements WSGI, the standard Python interface between applications and servers.
* [Jinja](https://palletsprojects.com/p/jinja/) is a template language that renders the pages your application serves.
* [MarkupSafe](https://palletsprojects.com/p/markupsafe/) comes with Jinja. It escapes untrusted input when rendering templates to avoid injection attacks.
* [ItsDangerous](https://palletsprojects.com/p/itsdangerous/) securely signs data to ensure its integrity. This is used to protect Flask’s session cookie.
* [Click](https://palletsprojects.com/p/click/) is a framework for writing command line applications. It provides the flask command and allows adding custom management commands.
* [Blinker](https://blinker.readthedocs.io/) provides support for [Signals](https://flask.palletsprojects.com/en/2.3.x/signals/).

# Follows these steps:

Step 1. First, we need to create a folder where we are installing our Flask and virtual environment.

Step 2. Open your visual studio code and open your folder (my folder name is flask).

Step 3. Click the terminal, open a new terminal and run all commands.

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Step 4. Type python.exe -m pip install –upgrade pip and hit enter (This command install pip into your python and upgrade also).

Step 5. Know we need to install a virtualenv. Type pip install virtualenv and hit enter (I already have this that’s why I got this).

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Step 6. We need to select our env, know type virtualenv env and hit enter. A new file generated in your folder.

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Step 7. After these all steps’ you need to activate you env, type .\env\scripts\activate.ps1 and hit enter.

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If you get this type of issue don’t worry type set-ExecutionPolicy Unrestricted -scope Process and hit enter (whenever you got any policy issue you need to run this command).

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you can see your terminal command line start with env that's mean you are activated your env.

Step 8. After the step 7 type pip install flask and hit enter (This command install flask into the env).

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# After these all step we need to check flask working or not.

Crete a new file which name is app.py and put below code (don’t create any file into the env file).

### Input code:

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| from flask import Flask #import the flask  app=Flask(\_\_name\_\_)  @app.route('/') #set the route  def hello(): #declaire a function      return("Hello World") #here i am print hello world  if \_\_name\_\_ == "\_\_main\_\_": #give the condition      app.run(debug=True) |

Know go to the right top of the visual studio code and click on Run Python File

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### Output of code:

We get this on terminal click on http://127.0.0.1:5000

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# That’s mean our flask run properly.

Flask with MySQL

Step 1. Click terminal, open a new terminal and run all commands.

Step 2. Type pip install flask\_mysqldb and hit enter I already do this.

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Step 3. We need a file which is app.py and put below code.

Input code:

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| from flask import Flask,render\_template, request  from flask\_mysqldb import MySQL  app=Flask(\_\_name\_\_)  app.config['MYSQL\_HOST']="localhost"   # this is my xampp localhost  app.config['MYSQL\_USER']="root"        # this is my xampp username  app.config['MYSQL\_PASSWORD']=""        # xampp don't have any password(If you are set a password on xampp then provide it)  app.config['MYSQL\_DB']="flask"         # this is my database name  mysql=MySQL(app)  @app.route('/', methods=['GET','POST'])  #there have two methods  def index():      if request.method == "POST": #I am using post method          username=request.form['username'] #database table username          email=request.form['email']          cur=mysql.connection.cursor()          cur.execute("insert into user (username, email) VALUES (%s, %s)",(username, email))          mysql.connection.commit()          cur.close()          return "Success"      return render\_template('index.html')  if \_\_name\_\_ == "\_\_main\_\_":      app.run(debug=True) |

Step 4. Create a folder inside of flask which name is templates and inside of this you need to create a index.html file and put below code.

Input code:

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| <!DOCTYPE html>  <html>  <head>  <meta name="viewport" content="width=device-width, initial-scale=1">  <style>  body {font-family: Arial, Helvetica, sans-serif;}  /\* Full-width input fields \*/  input[type=text], input[type=Email] {    width: 100%;    padding: 12px 20px;    margin: 8px 0;    display: inline-block;    border: 1px solid #ccc;    box-sizing: border-box;  }  /\* Set a style for all buttons \*/  button {    background-color: #04AA6D;    color: white;    padding: 14px 20px;    margin: 8px 0;    border: none;    cursor: pointer;    width: 100%;  }  button:hover {    opacity: 0.8;  }  /\* Extra styles for the cancel button \*/  .cancelbtn {    width: auto;    padding: 10px 18px;    background-color: #f44336;  }  /\* Center the image and position the close button \*/  .imgcontainer {    text-align: center;    margin: 24px 0 12px 0;    position: relative;  }  img.avatar {    width: 40%;    border-radius: 50%;  }  .container {    padding: 16px;  }  span.psw {    float: right;    padding-top: 16px;  }  /\* The Modal (background) \*/  .modal {    display: none; /\* Hidden by default \*/    position: fixed; /\* Stay in place \*/    z-index: 1; /\* Sit on top \*/    left: 0;    top: 0;    width: 100%; /\* Full width \*/    height: 100%; /\* Full height \*/    overflow: auto; /\* Enable scroll if needed \*/    background-color: rgb(0,0,0); /\* Fallback color \*/    background-color: rgba(0,0,0,0.4); /\* Black w/ opacity \*/    padding-top: 60px;  }  /\* Modal Content/Box \*/  .modal-content {    background-color: #fefefe;    margin: 5% auto 15% auto; /\* 5% from the top, 15% from the bottom and centered \*/    border: 1px solid #888;    width: 80%; /\* Could be more or less, depending on screen size \*/  }  /\* The Close Button (x) \*/  .close {    position: absolute;    right: 25px;    top: 0;    color: #000;    font-size: 35px;    font-weight: bold;  }  .close:hover,  .close:focus {    color: red;    cursor: pointer;  }  /\* Add Zoom Animation \*/  .animate {    -webkit-animation: animatezoom 0.6s;    animation: animatezoom 0.6s  }  @-webkit-keyframes animatezoom {    from {-webkit-transform: scale(0)}    to {-webkit-transform: scale(1)}  }    @keyframes animatezoom {    from {transform: scale(0)}    to {transform: scale(1)}  }  /\* Change styles for span and cancel button on extra small screens \*/  @media screen and (max-width: 300px) {    span.psw {       display: block;       float: none;    }    .cancelbtn {       width: 100%;    }  }  </style>  </head>  <body>  <h2>Modal Login Form</h2>  <button onclick="document.getElementById('id01').style.display='block'" style="width:auto;">Login</button>  <div id="id01" class="modal">      <form class="modal-content animate" action="/" method="POST">      <div class="imgcontainer">        <span onclick="document.getElementById('id01').style.display='none'" class="close" title="Close Modal">&times;</span>        <img src="img\_avatar2.png" alt="Avatar" class="avatar">      </div>      <div class="container">        <label for="username"><b>Username</b></label>        <input type="text" placeholder="Enter Username" name="username" required>        <label for="email"><b>Email</b></label>        <input type="email" placeholder="Enter Email" name="email" required>          <button type="submit">Login</button>        </div>      <div class="container" style="background-color:#f1f1f1">        <button type="button" onclick="document.getElementById('id01').style.display='none'" class="cancelbtn">Cancel</button>        <span class="psw">Forgot <a href="#">Password?</a></span>      </div>    </form>  </div>  <script>  // Get the modal  var modal = document.getElementById('id01');  // When the user clicks anywhere outside of the modal, close it  window.onclick = function(event) {      if (event.target == modal) {          modal.style.display = "none";      }  }  </script>  </body>  </html> |

Know go to the right top of the visual studio code and click on Run Python File

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### Output of code:

We get this on terminal click on http://127.0.0.1:5000

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Fill this short form and click on login if you get success.

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Our data store into our selected database.

Step 5. Know open your xampp and check your data show or not.

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We are installing flask, MySQL and also done 2 activities.