

Flask Installation

Flask depends on the Werkzeug **WSGI** toolkit, the **Jinja** template engine, and the Click **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.

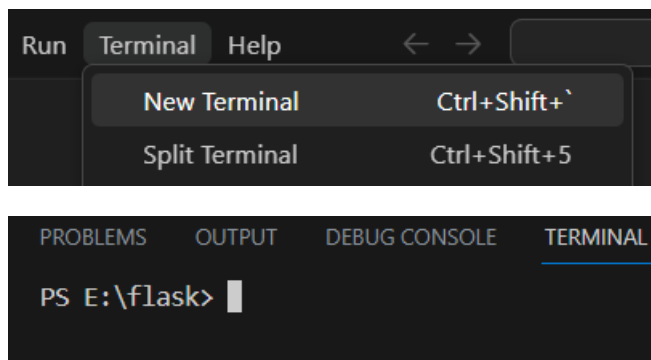
- [Werkzeug](#) implements WSGI, the standard Python interface between applications and servers.
- [Jinja](#) is a template language that renders the pages your application serves.
- [MarkupSafe](#) comes with Jinja. It escapes untrusted input when rendering templates to avoid injection attacks.
- [ItsDangerous](#) securely signs data to ensure its integrity. This is used to protect Flask's session cookie.
- [Click](#) is a framework for writing command line applications. It provides the flask command and allows adding custom management commands.
- [Blinker](#) provides support for [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 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. Now we need to install a virtualenv. Type `pip install virtualenv` and hit enter (I already have this that's why I got this).

```
PS E:\flask> pip install virtualenv
Requirement already satisfied: virtualenv in c:\users\padam\appdata\local\prog
Requirement already satisfied: distlib<1,>=0.3.7 in c:\users\padam\appdata\loc
Requirement already satisfied: filelock<4,>=3.12.2 in c:\users\padam\appdata\l
Requirement already satisfied: platformdirs<4,>=3.9.1 in c:\users\padam\appdat
```

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

```
PS E:\flask> virtualenv env
created virtual environment CPython3.11.4.final.0-64 in 1161ms
creator CPython3Windows(dest=E:\flask\env, clear=False, no_vcs_ignore=False, gl
seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle,
added seed packages: pip==23.2.1, setuptools==68.0.0, wheel==0.41.0
activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerShe
```

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

```
PS E:\flask> .\env\scripts\activate.ps1
.\env\scripts\activate.ps1 : File E:\flask\env\scripts\activate.ps1 cannot be loaded because running scripts is disabled on this system. For more information,
see about Execution_Policies at https://go.microsoft.com/fwlink/?LinkID=135170.
At line:1 char:1
+ .\env\scripts\activate.ps1
+ ~~~~~
+ CategoryInfo          : SecurityError: (:) [], PSSecurityException
+ FullyQualifiedErrorId : UnauthorizedAccess
```

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).

```
PS E:\flask> set-ExecutionPolicy Unrestricted -scope Process
PS E:\flask> .\env\scripts\activate.ps1
(env) PS E:\flask> █
```

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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```
Using cached MarkupSafe-2.1.3-cp311-cp311-win_amd64.whl.metadata (3.1 kB)
Using cached click-8.1.6-py3-none-any.whl (97 kB)
Using cached Werkzeug-2.3.6-py3-none-any.whl (242 kB)
Using cached MarkupSafe-2.1.3-cp311-cp311-win_amd64.whl (17 kB)
Installing collected packages: MarkupSafe, itsdangerous, colorama, blinker, Werkzeug, Jinja2, click
Successfully installed Jinja2-3.1.2 MarkupSafe-2.1.3 Werkzeug-2.3.6 blinker-1.6.2 click-8.1.6 colorama-0.4.6
```

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

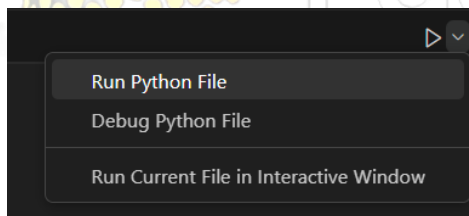
Create a new file which name is **app.py** and put below code (don't create any file into the env file).

Input code:

```
from flask import Flask #import the flask
app=Flask(__name__)
@app.route('/') #set the route
def hello(): #declare a function
    return("Hello World") #here i am print hello world

if __name__ == "__main__": #give the condition
    app.run(debug=True)
```

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

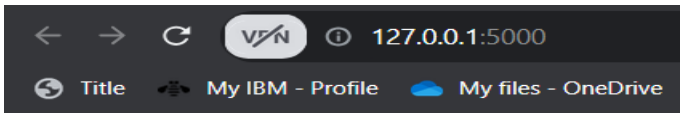


Output of code:

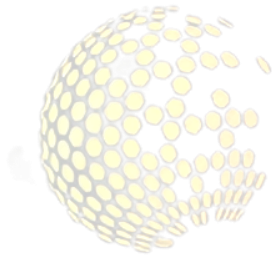
We get this on terminal click on **http://127.0.0.1:5000**

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```
+ FullyQualifiedErrorId : UnauthorizedAccess
PS E:\flask> & e:/flask/env/Scripts/python.exe e:/flask/app.py
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production dep
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 136-254-087
127.0.0.1 - - [04/Aug/2023 12:50:44] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [04/Aug/2023 12:50:44] "GET /favicon.ico HTTP/1.1" 404 -
```



That's mean our flask run properly.



Padam Singh
EVERYTHING IS POSSIBLE

Flask Installation

Flask with MySQL

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

Step 2. Type `pip install flask_mysql` and hit enter I already do this.

```
PS E:\flask> pip install flask_mysql
Requirement already satisfied: flask_mysql in ...
Requirement already satisfied: Flask>=0.12.0 in ...
Requirement already satisfied: mysqlclient>=1.3.12 in ...
Requirement already satisfied: Werkzeug>=2.0.0 in ...
)
Requirement already satisfied: Jinja2>=3.1.0 in ...
Requirement already satisfied: itsdangerous>=2.0.0 in ...
.1.2)
Requirement already satisfied: click>=8.1.3 in ...
Requirement already satisfied: blinker>=1.6.2 in ...
Requirement already satisfied: colorama in ...
Requirement already satisfied: MarkupSafe>=2.0.1 in ...
```

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

Input code:

```
from flask import Flask, render_template, request
from flask_mysql 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
sre 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__":
```

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```
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:

```
<!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;
}
```

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```
/* 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 */
}
```

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```
/* 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>
```


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```
<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>
      
    </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>

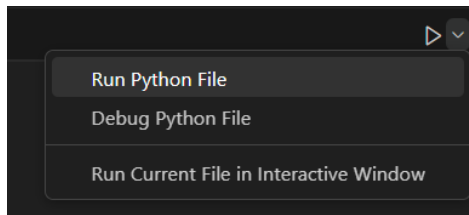
<script>
// Get the modal
var modal = document.getElementById('id01');

// When the user clicks anywhere outside of the modal, close it
window.onclick = function(event) {
  if (event.target == modal) {
    modal.style.display = "none";
  }
}
```

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```
}  
</script>  
  
</body>  
</html>
```

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



Output of code:

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

```
+ FullyQualifiedErrorId : UnauthorizedAccess  
PS E:\flask> & e:/flask/env/Scripts/python.exe e:/flask/app.py  
* Serving Flask app 'app'  
* Debug mode: on  
WARNING: This is a development server. Do not use it in a production de  
* Running on http://127.0.0.1:5000  
Press CTRL+C to quit  
* Restarting with stat  
* Debugger is active!  
* Debugger PIN: 136-254-087  
127.0.0.1 - - [04/Aug/2023 12:50:44] "GET / HTTP/1.1" 200 -  
127.0.0.1 - - [04/Aug/2023 12:50:44] "GET /favicon.ico HTTP/1.1" 404 -
```

Modal Login Form

Login

Avatar

Username

Enter Username

Email

Enter Email

Login

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

Flask Installation



Our data store into our selected database.

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

username	email
Mr pglu	padam4030@gmail.com
Ganesh	ganesh@gmail.com
Padam Singh	padam4030@gmail.com

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

