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Calculator using Python-Flask

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***Abstract*—This manual shows how to build a calculator using Python-Flask. The user interface is through a browser while the computations are done in Python.**

1 Python-flask

Flask is Python framework for creating web applications.

1.1 Installation:

```
sudo apt-get update
sudo apt-get install python-pip
sudo pip install flask
```

1.2 Calculator UI in HTML: Create a calculator UI and view it on a browser.
Solution:

```
https://raw.githubusercontent.com/gadepall/EE1083/master/calculator/webcalc/codes/templates/calc.html
```

1.3 Save **calc.html** in a folder called **templates**.

1.4 Type the following code in a file called **calc_ui.py** and execute it. Make sure that the python file is outside the **templates** directory. What do you observe?

```
from flask import Flask, render_template, request
#import mysql.connector as mariadb
app=Flask(__name__)
@app.route('/')

def student():
        return render_template('calc.html')

if __name__=='__main__':
        app.run(debug = True)
```

Solution: An address will be displayed on the terminal.

1.5 Enter the above address in a browser. You should see the calculator UI.

2 Python Engine

2.1 Write a program to concatenate 2 strings.
Solution:

```
#Program using simple concatenation

str1= input("Enter the first string: ");
str2= input("Enter the second string: ");
con = str1+str2;
print("\nString after concatenation: ",con);
```

2.2 Write a program to concatenate 3 strings.

2.3 Use the **eval** function in python to add, subtract, multiply and divide two numbers using Problem 2.2
Solution:

```
str1=input("Enter the first no: ");
str2= input("select operation: ");
str3=input("Enter the second no: ");
```

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```
con = str1+str2+str3;
print("Inputs: ",con);
result = eval(con);
print("Sum: ", result);
```

2.4 Extend 2.3 for the operations that one would do using a simple calculator.

2.5 Build a calculator using Python-Flask.
Solution: Download

```
svn checkout https://github.com
    /gadepall/EE1083/trunk/
    calculator/webcalc/codes
```

and execute **calc_exec.py**