

# Εργασία Προηγμένες Τεχνικές Προγραμματισμού

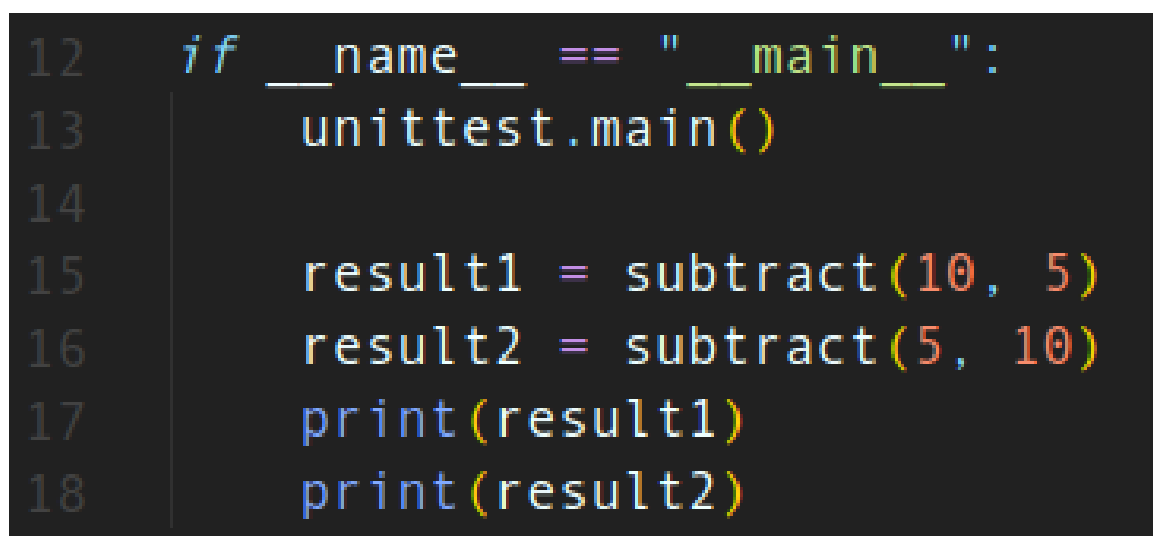
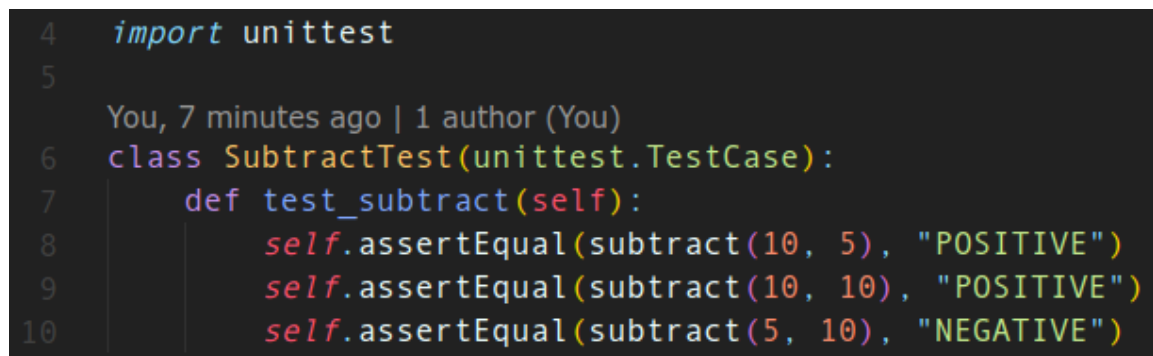
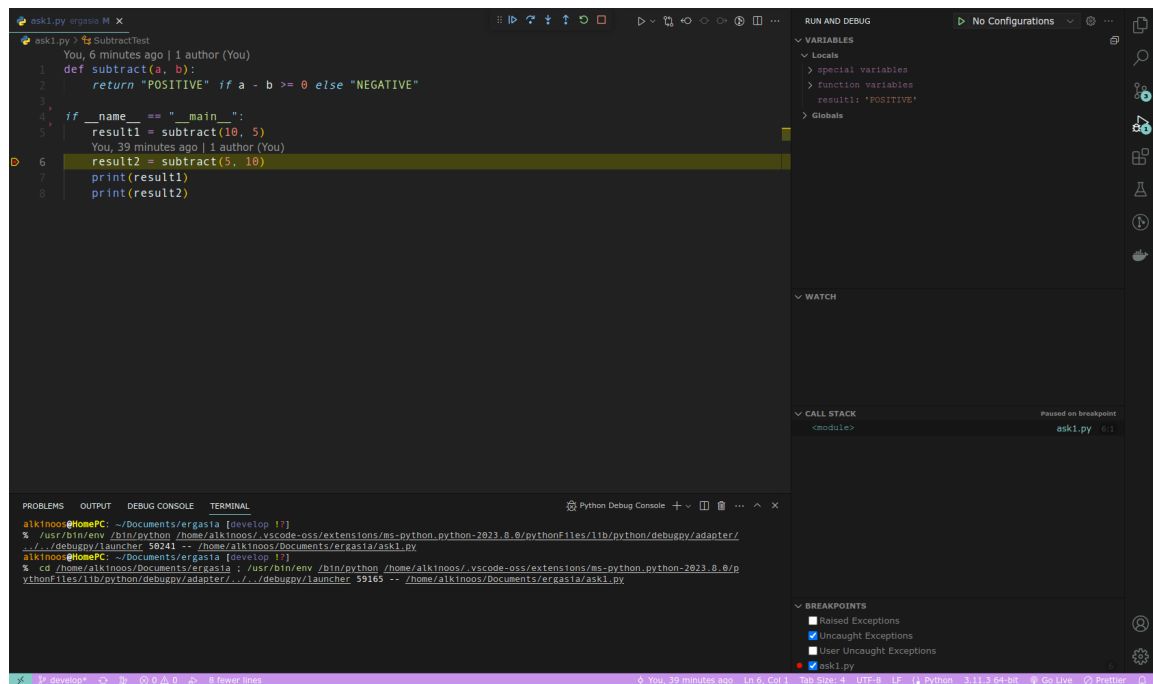
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GitHub link: [https://github.com/alk-alyss/sample\\_project](https://github.com/alk-alyss/sample_project)

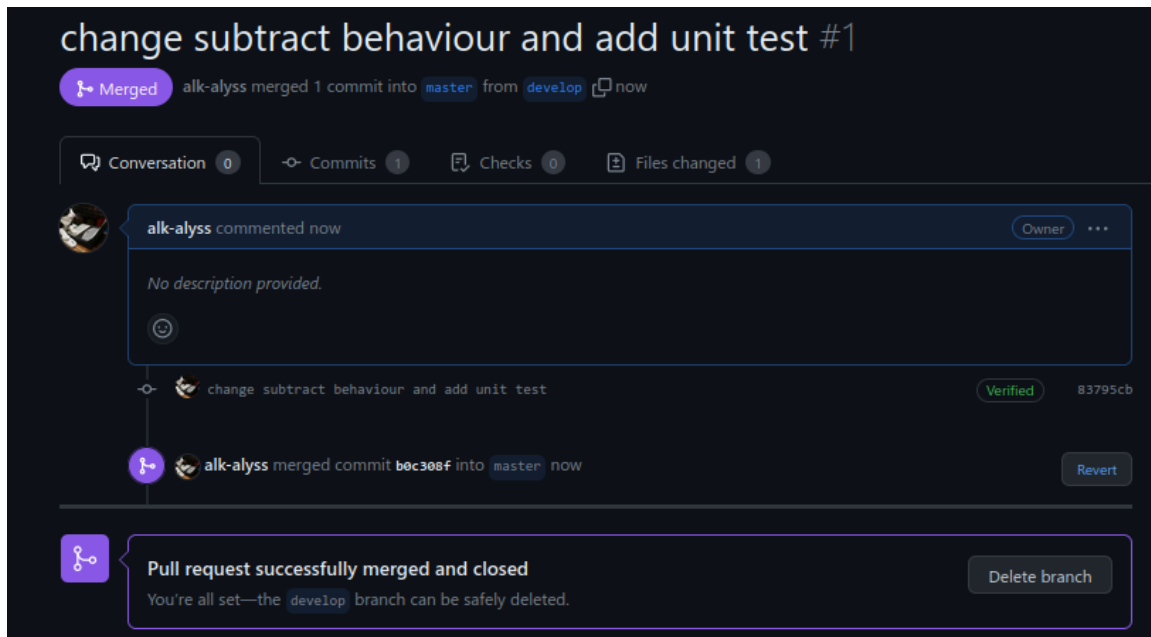
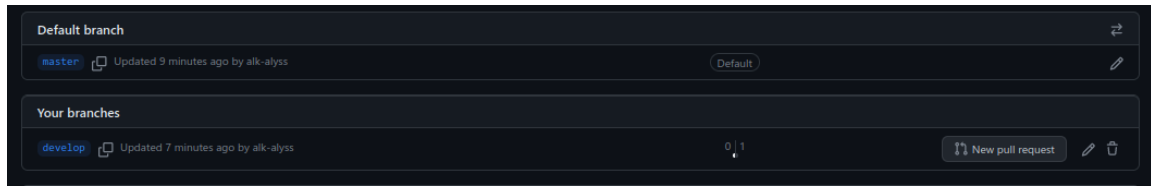
## Άσκηση 1

```
1  def subtract(a, b):  
2      return "POSITIVE" if a - b >= 0 else "NEGATIVE"  
3
```

```
12  if __name__ == "__main__":  
13      result1 = subtract(10, 5)  
14      result2 = subtract(5, 10)  
15      print(result1)  
16      print(result2)
```



## Άσκηση 2



## Άσκηση 3

```
1  import paho.mqtt.client as mqtt
2
3  def on_connect(client, userdata, flags, rc):
4      if rc == 0:
5          print("Connected to MQTT Broker!")
6      else:
7          print("Failed to connect, return code %d\n", rc)
8
9  client = mqtt.Client()
10 client.on_connect = on_connect()
11
12 client.connect("mqtt.eclipseprojects.io")
13 client.loop_start()
14
15
16 from fastapi import FastAPI
17 from pydantic import BaseModel
18
19 app = FastAPI()
20
21 class Message(BaseModel):
22     data: str
23
24 @app.post("/")
25 def getMessage(message: Message):
26     print(message.data)
27     client.publish("alk_alyss/test", message)
28
```

```
1  FROM python:3.11
2  WORKDIR /server
3  COPY ./requirements.txt ./requirements.txt
4  RUN pip install --no-cache-dir --upgrade -r requirements.txt
5  COPY ./ask3.py .
6  CMD ["uvicorn", "ask3:app", "--host", "0.0.0.0", "--port", "80"]
```