Asyncio
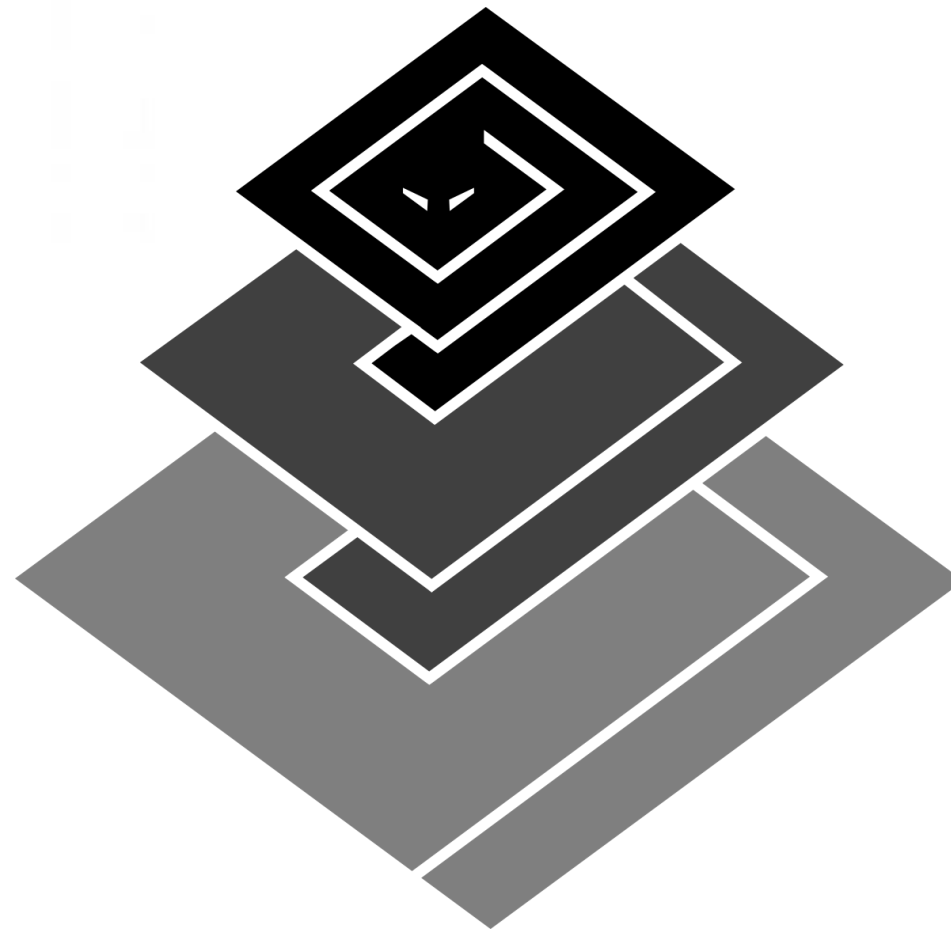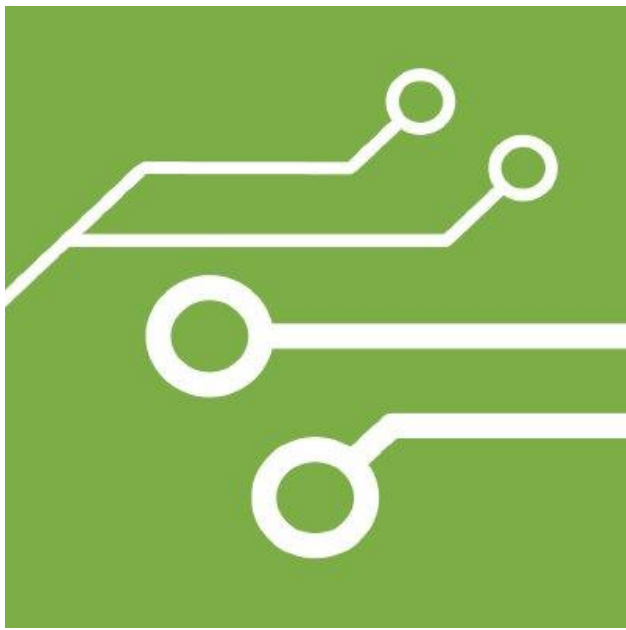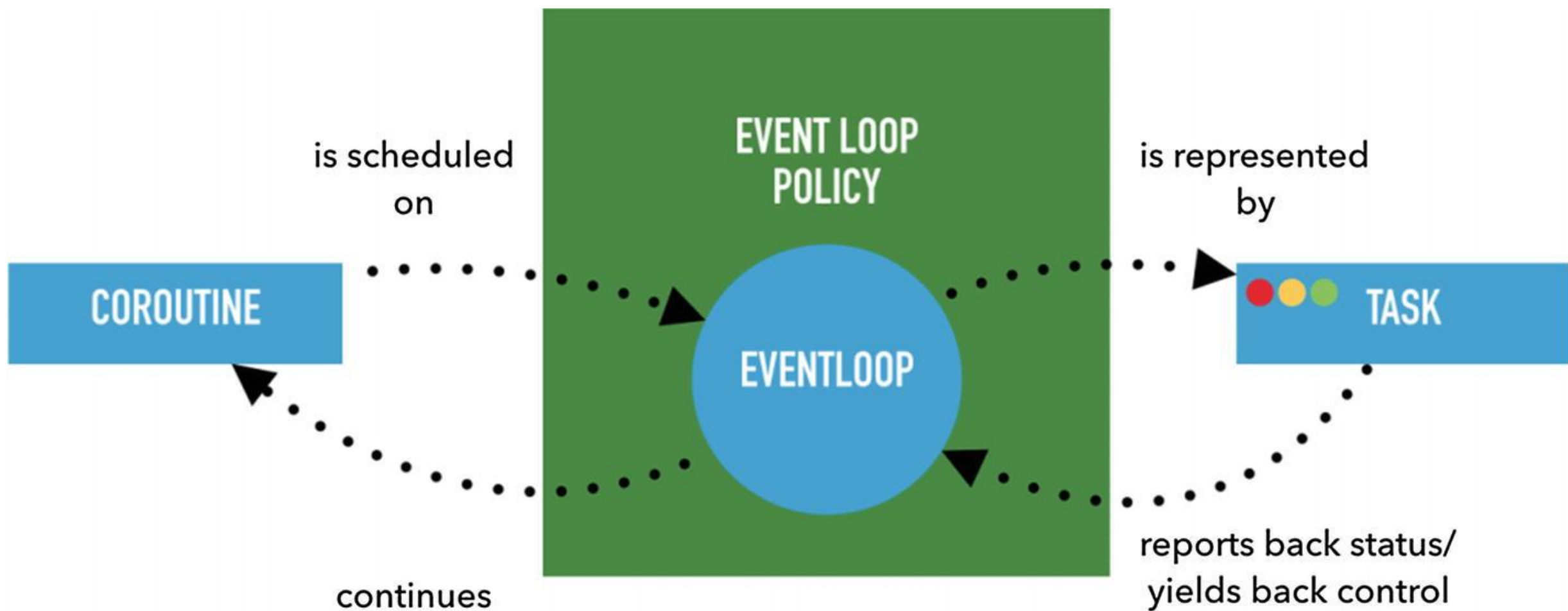
Нюхалов Денис, ИВТ, 3 курс

asyncio_sample.py > ...

```python
import asyncio


async def func():
    pass


# legacy код, раньше корутины объявлялись через декоратор. В версии Python 3.10 планируют убрать эту возможность.
# @asyncio.coroutine
# def old_coroutine_func():
#     pass


print(func())
```

OUTPUT   TERMINAL   DEBUG CONSOLE   PROBLEMS

```
PS G:\School\3kurs\npor 6> & C:/Users/Denis/AppData/Local/Programs/Python/Python39/python.exe "g:/School/3kurs/npor 6/asyncio_sample.py"
<coroutine object func at 0x0000026784725240>
g:\School\3kurs\npor 6\asyncio_sample.py:11: RuntimeWarning: coroutine 'func' was never awaited
  print(func())
RuntimeWarning: Enable tracemalloc to get the object allocation traceback
PS G:\School\3kurs\npor 6>
```

asyncio_sample.py > ...

```python
1  import asyncio
2
3  async def func():
4      print('hello')
5
6  asyncio.run(func())
```

OUTPUT   TERMINAL   DEBUG CONSOLE   PROBLEMS

1: Python

```
PS G:\School\3kurs\пор 6> & C:/Users/Denis/AppData/Local/Programs/Python/Python39/python.exe "g:/School/3kurs/пор 6/asyncio_sample.py"
hello
PS G:\School\3kurs\пор 6> 
```

```python
import asyncio
import time


async def func():
    print('world')

async def main():
    print('hello')
    await asyncio.sleep(2)
    await func()


start_time = time.time()
asyncio.run(main())

print("\n--- %s seconds ---" % (time.time() - start_time))
```

OUTPUT TERMINAL DEBUG CONSOLE PROBLEMS

```
PS G:\School\3kurs\пror 6> & C:/Users/Denis/AppData/Local/Programs/Python/Python39/python.exe "g:/School/3kurs/пror 6/asyncio_sample.py"
hello
world


--- 2.0130136013031006 seconds ---
PS G:\School\3kurs\пror 6>
```

```python
import asyncio
import time


async def func():
    print('world')
    await asyncio.sleep(3)

async def new_func():
    print('hello everyone')

async def main():
    print('hello')
    await func()
    await new_func()



start_time = time.time()
```

OUTPUT   TERMINAL   DEBUG CONSOLE   PROBLEMS   ✕   1: Python ⌄   + ⬚ 🗑 ⌃ ✕

```
PS G:\School\3kurs\прог 6> & C:/Users/Denis/AppData/Local/Programs/Python/Python39/python.exe "g:/School/3kurs/прог 6/asyncio_sample.py"
hello
world
hello everyone

--- 3.0061278343200684 seconds ---
PS G:\School\3kurs\прог 6>
```

```python
1   import asyncio
2   import time
3
4
5   async def func():
6       print('world')
7       await asyncio.sleep(3)
8
9   async def new_func():
10      print('hello everyone')
11
12  async def main():
13      print('hello')
14      task = asyncio.create_task(func())
15      await new_func()
16
17
18  start_time = time.time()
```

OUTPUT   TERMINAL   DEBUG CONSOLE   PROBLEMS 1   1: Python ⌄   + ▢ 🗑 ∧ ✕

```
PS G:\School\3kurs\npor 6> & C:/Users/Denis/AppData/Local/Programs/Python/Python39/python.exe "g:/School/3kurs/npor 6/asyncio_sample.py"
hello
hello everyone
world

--- 0.008000373840332031 seconds ---
PS G:\School\3kurs\npor 6> []
```

Нужно сделать

⋮

+   Add a task

○   Погулять с собакой

○   Ответить мистеру Швинку

○   Сделать домашку