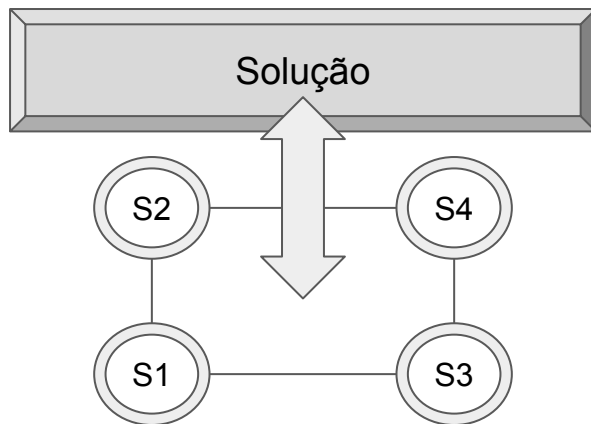


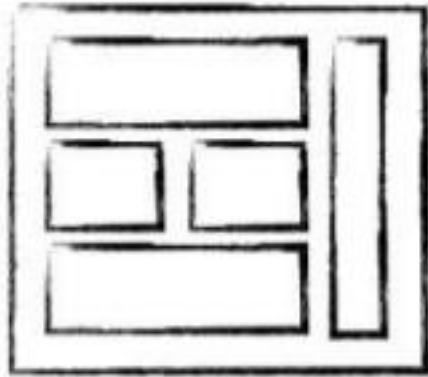
Microserviços com Python3 e Tornado



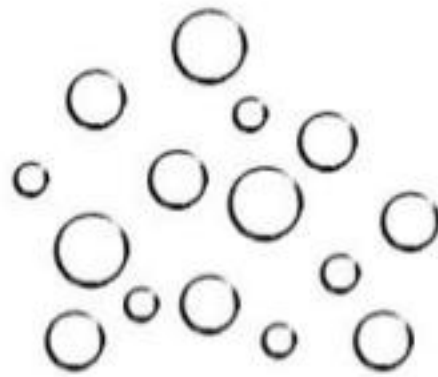
Joelmir Ribacki

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O que é um sistema orientado a serviços?



MONOLITHIC/LAYERED



MICRO SERVICES

Microservices

- Desacoplamento
- Scopo reduzido
- Independencia
- Compartilhamento
- Facilidade na integração com outros serviços

E o python, funciona pra isso também?



Frameworks



PyramidTM



pythonTM



Python 3



SQLAlchemy

Alembic



Tornado

- Projeto enxuto
- Asynchronous and nonblocking IO
- Restful
- Configuração simples
- Integração

Projeto tornado

```
import tornado.ioloop
import tornado.web

class MainHandler(tornado.web.RequestHandler):
    def get(self):
        self.write("Hello, world")

def make_app():
    return tornado.web.Application([
        (r"/", MainHandler),
    ])

if __name__ == "__main__":
    app = make_app()
    app.listen(8888)
    tornado.ioloop.IOLoop.current().start()
```


Models

SQLAlchemy

```
cursor.execute(  
    "SELECT title FROM movie WHERE  
    {t=title_field})  
for row in cursor.fetchall():  
    print 'Title:', row[0]
```



↑
The ORM's job is to turn *this*
into *this*
↓

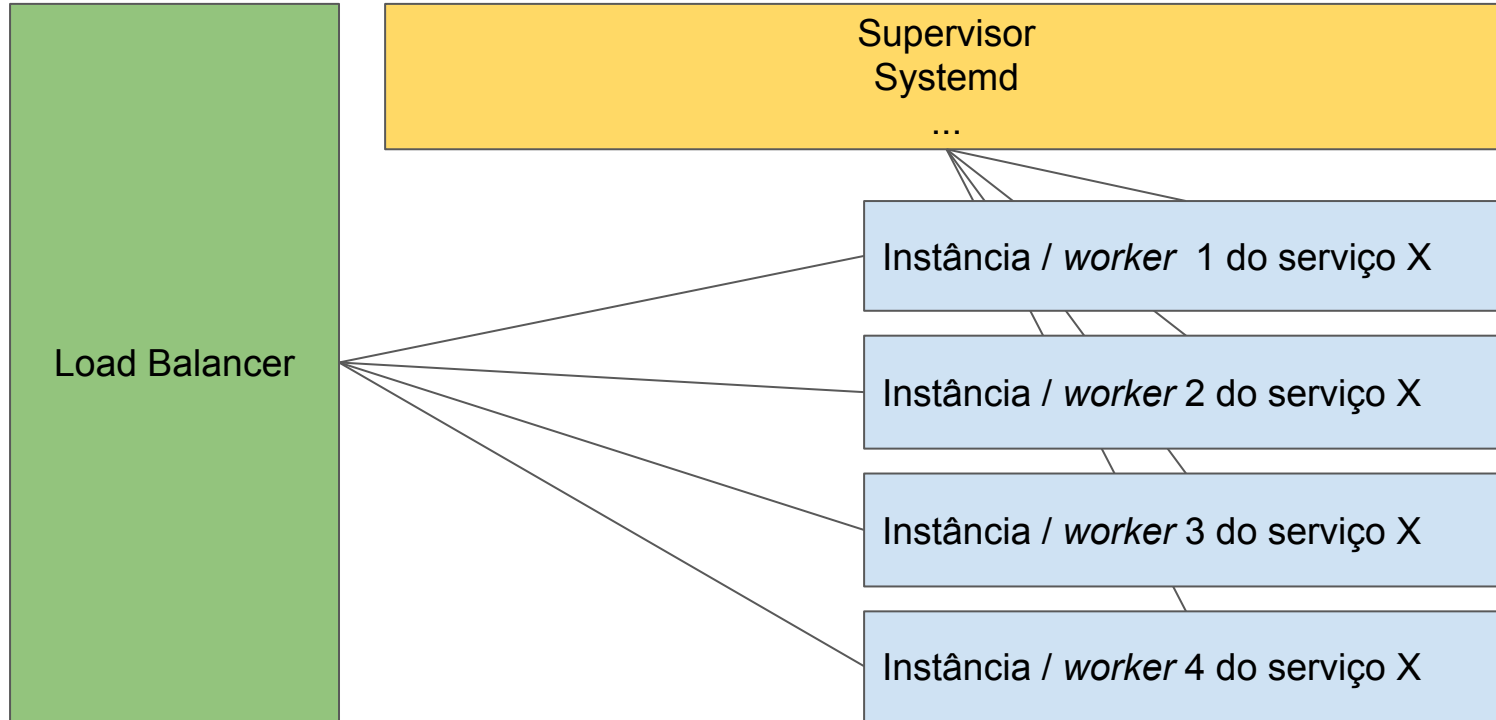
```
query = db.query(Movie).filter_by(title=title)  
for movie in query:  
    print 'Title:', movie.title
```

Manutenção (Migrações) do DB

Alembic - Controla alterações da base de dados

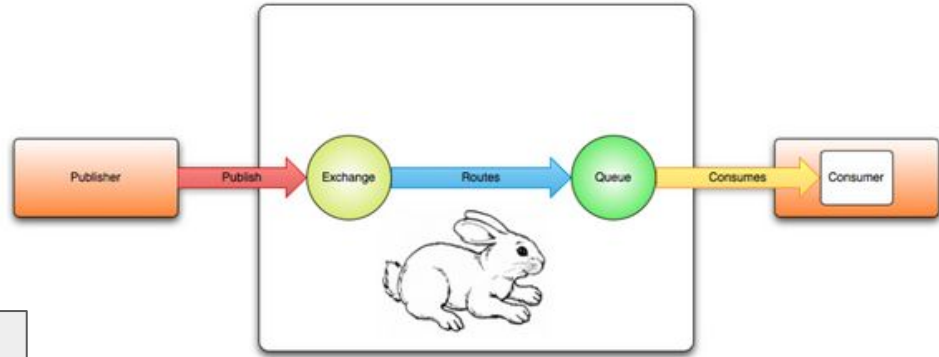
- CREATE TABLE
- ADD COLUMN
- ADD INDEX
- DROP TABLE/COLUMN/INDEX ...
- Data seeds (inicialização de dados)
- ...

Escalabilidade

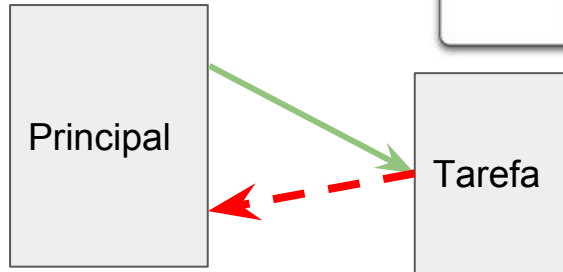


Celery

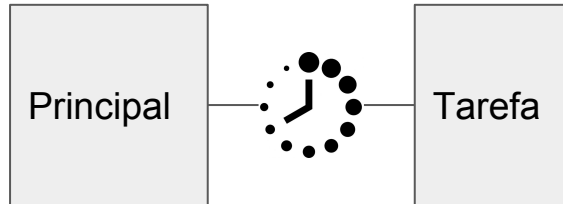
Distribuidor de tarefas em filas



- Assíncrono



- Agendado

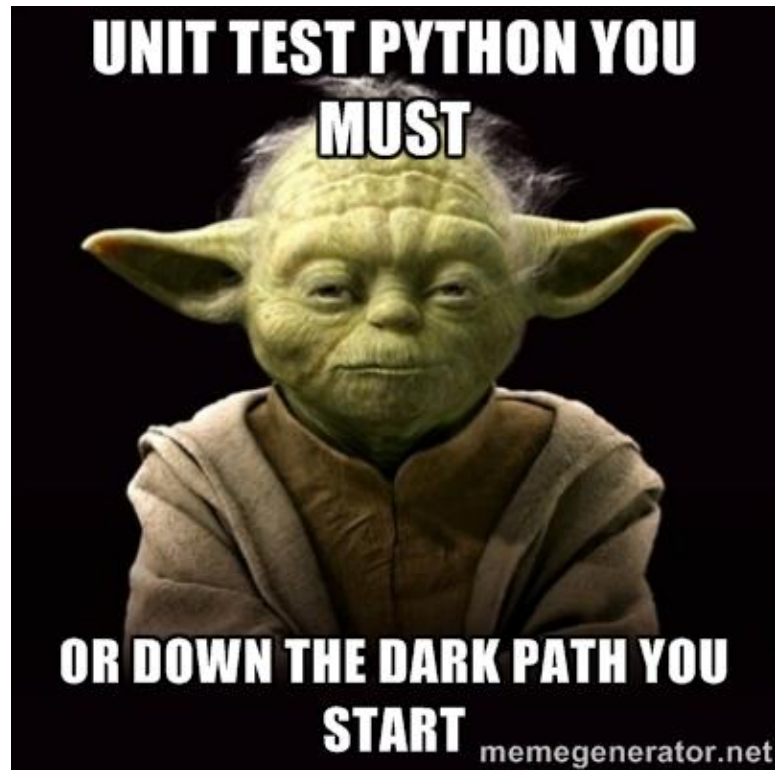


Testes

`tornado.testing`

Suporte tarefas assíncronas

- `AsyncTestCase`
- `AsyncHTTPTestCase`



Integração com Tornado

- Default JSON
- Response com dicionários
- URL Matching com expressões regulares
- Integração com outros modulos python
- Facil instalação e manutenção

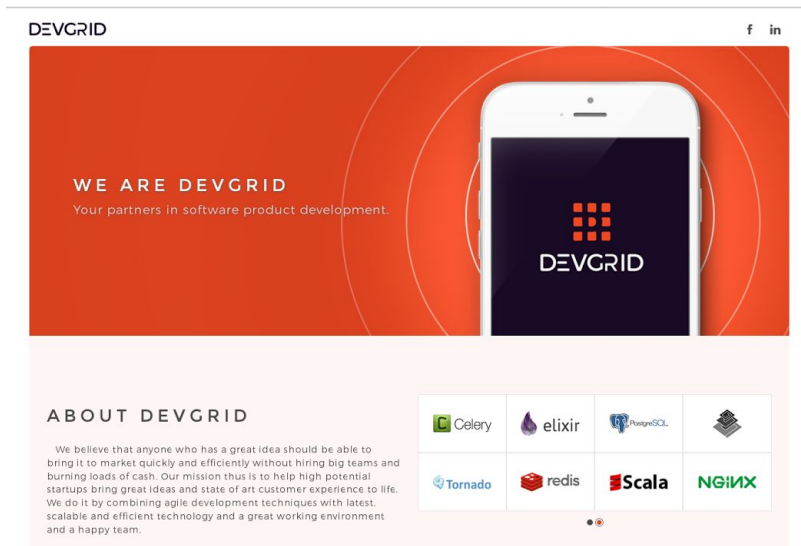
A dirt road winding through a forest with tall grass and trees.

**Talk is cheap.
Show me the code.**

Linus Torvalds

Estamos contratando :)

<http://devgrid.co.uk/>



Obrigado!

Microserviços com Python3 e Tornado



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