

# Python og Flask

# Python

Python er et objektorientert programmeringsspråk startet på av Guido van Rossum i 1989. Van Rossum valgte navnet «Python» fordi han er fan av Monty Python, og fordi han mener at programmering skal være gøy.

- Objektorientert
- Batterier inkludert (lister, maps, sets ...)
- Masse biblioteker
- Fungerer på alle plattformer
- Lettlest og klar syntaks

## Google

*"Python has been an important part of Google since the beginning, and remains so as the system grows and evolves. Today dozens of Google engineers use Python, and we're looking for more people with skills in this language."* said Peter Norvig, director of search quality at [Google, Inc.](#)

## YouTube.com

*"Python is fast enough for our site and allows us to produce maintainable features in record times, with a minimum of developers,"* said Cuong Do, Software Architect, [YouTube.com](#).

## Dropbox

[Rajiv's blog](#)

[Dropbox](#)

## Six Feet Up, Inc.

- *Python is robust*
- *Python is flexible*
- *Python is easy to learn and use*
- *Python reduces time to market*
- *Python is free*

<https://us.pycon.org/2014/sponsors/>

## PYPL Popularity of Programming Language index

Position June 2014	Position June 2013	Delta in position	Programming language	Share in June 2014	Twelve month trends
1	1		Java	26.9 %	-0.1 %
2	2		PHP	13.2 %	-1.4 %
3	4	↑	C#	10.3 %	+0.2 %
4	3	↓	<u>Python</u>	10.2 %	+0.4 %
5	5		C++	8.4 %	-0.9 %
6	6		C	7.9 %	-0.2 %
7	7		<u>Javascript</u>	7.8 %	+0.1 %
8	8		<u>Objective-C</u>	6.6 %	+1.2 %
9	9	↑	<u>Ruby</u>	3.8 %	+0.3 %
10	10	↓	Visual Basic	3.3 %	+0.3 %
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## TIOBE Index for June 2014

Jun 2014	Jun 2013	Change	Programming Language	Ratings	Change
1	1		C	16.191%	-1.62%
2	2		Java	16.113%	-0.54%
3	3		Objective-C	10.934%	+0.58%
4	4		C++	6.425%	-2.39%
5	6	⬆	C#	3.944%	-1.84%
6	7	⬆	(Visual) Basic	3.736%	-0.61%
7	5	⬇	PHP	2.848%	-3.14%
8	8		Python	2.710%	-1.47%
9	10	⬆	JavaScript	2.000%	+0.35%
10	12	⬆	Visual Basic .NET	1.914%	+0.85%

# Flask

- Mikrorammeverk
  - Kun kjernefunksjonalitet
  - Utvidbart
- Kom raskt igang
- Forholdsvis ungt prosjekt med et vitalt community
- Open source

## Pinterest

*"I'm sure we would at least consider Flask, given that we do use it now for our API, which powers more than half the traffic that Pinterest serves. It's very lightweight and easy to set up and scales reasonably well ..."*

<https://www.quora.com/Pinterest/Would-Pinterest-consider-Flask-in-place-of-Django-if-it-were-starting-today>

# Minimalt eksempel

```
import flask

app = flask.Flask(__name__)

@app.route("/index")
def index():
    return """
    <html>
      <body>
        <h1>Hello world!</h1>
      </body>
    </html>
    """

if __name__ == "__main__":
    app.run()
```



# Hvorfor Python og Flask

- Enkelt å komme i gang
- Stort community
- Bindinger for “alt”
- Enkel syntax
- Python (og Flask) er gøy å jobbe med

# Workshop

Vi skal implementere REST-grensesnitt, vha. Flask, for en todo-applikasjon

- GET /api/todos/<id>
- POST /api/todos
- PUT /api/todos/<id>
- DELETE /api/todos/<id>

Ekstraoppgave:

- Legg til funksjonalitet for å prioritere oppgavene

# Tester

Det er implementert et sett med tester som implementasjonen kan kontrolleres mot.

```
> python simple_todo_api_it.py
```

<https://github.com/finnchr/flask-workshop>