



Micro-web-framework, unit-tests and maintainable web-application

Presented by
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Fedora packager and infrastructure

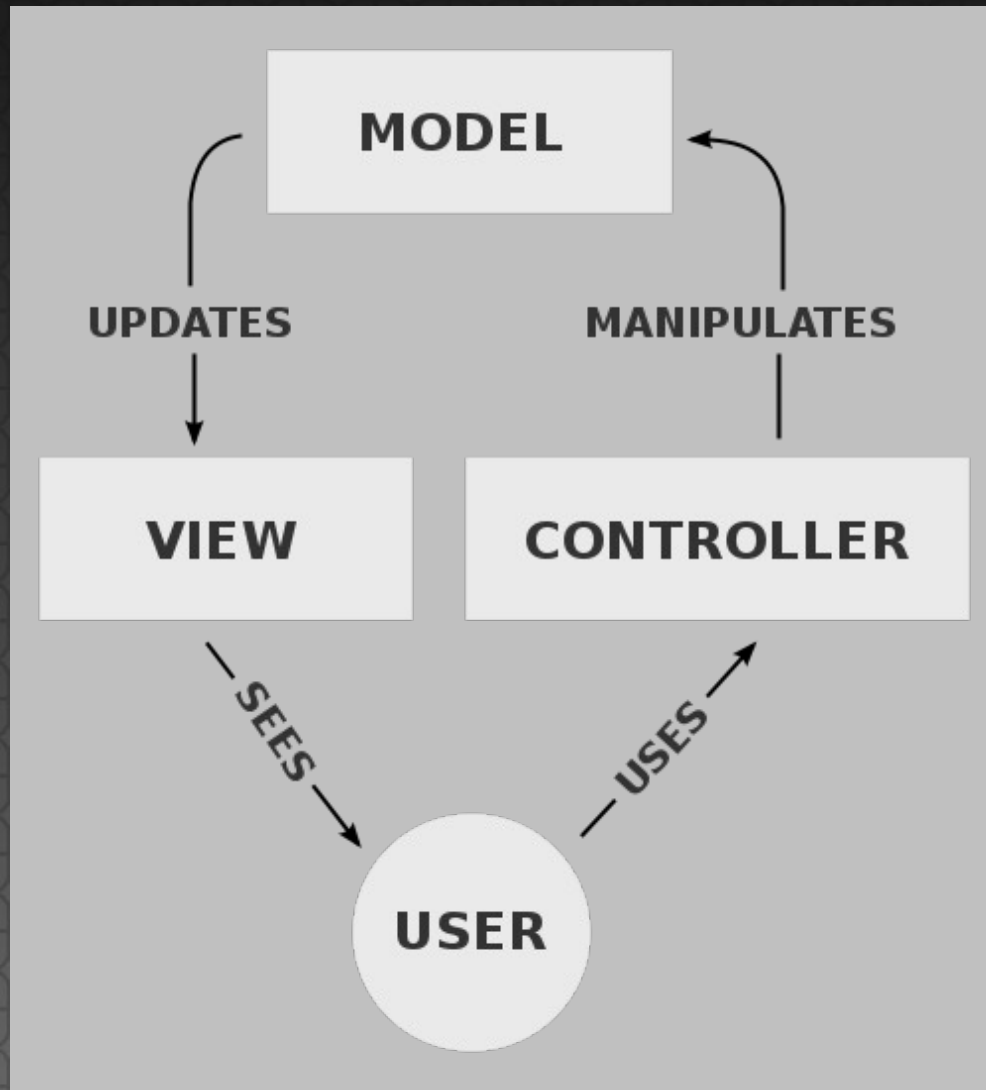
About me

- Packager
- Web-app developer
 - Fedocal (Flask)
 - Fas (TG1)
 - Pkgdb (TG1)
 - MirrorManager (TG1 - TG2)
 - Fedora-Elections (TG1 - TG2)

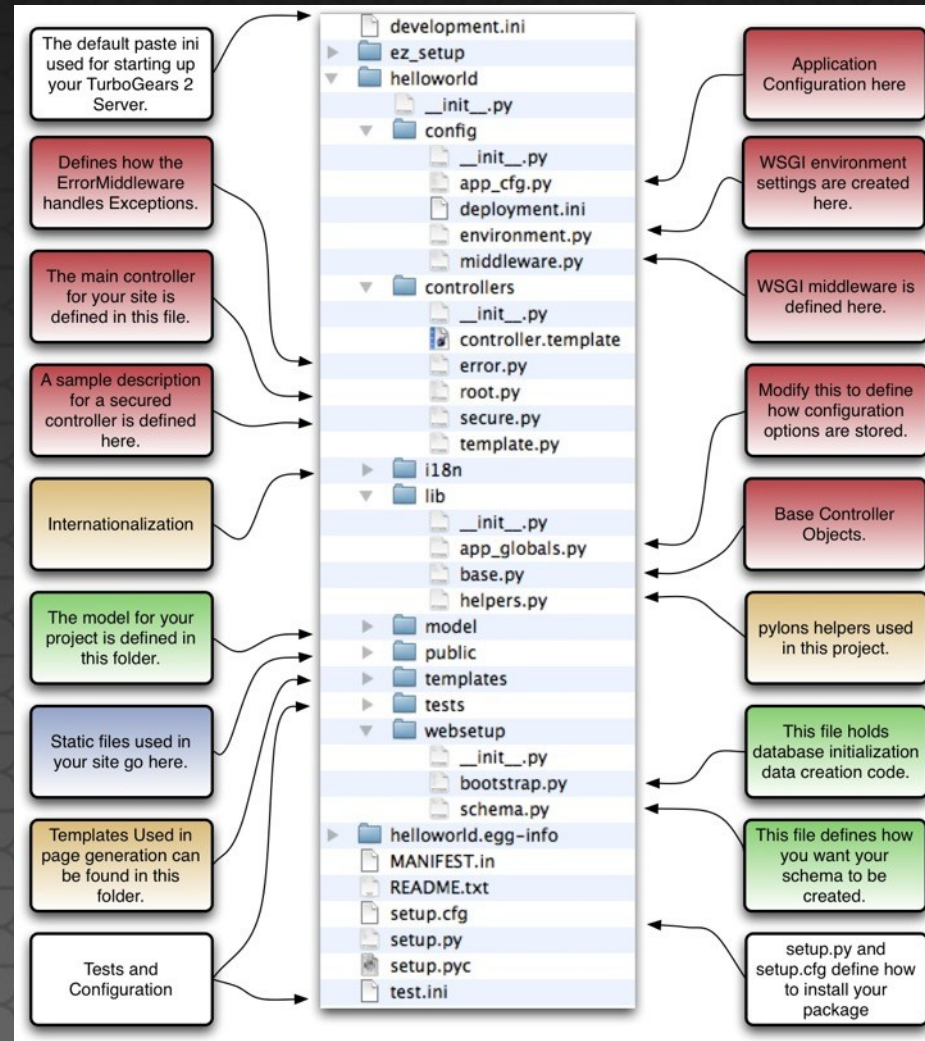
About the talk

- Will
 - Flask (micro-framework)
 - Turbogears (1 & 2)
 - (Django)
- Won't
 - Pyramid

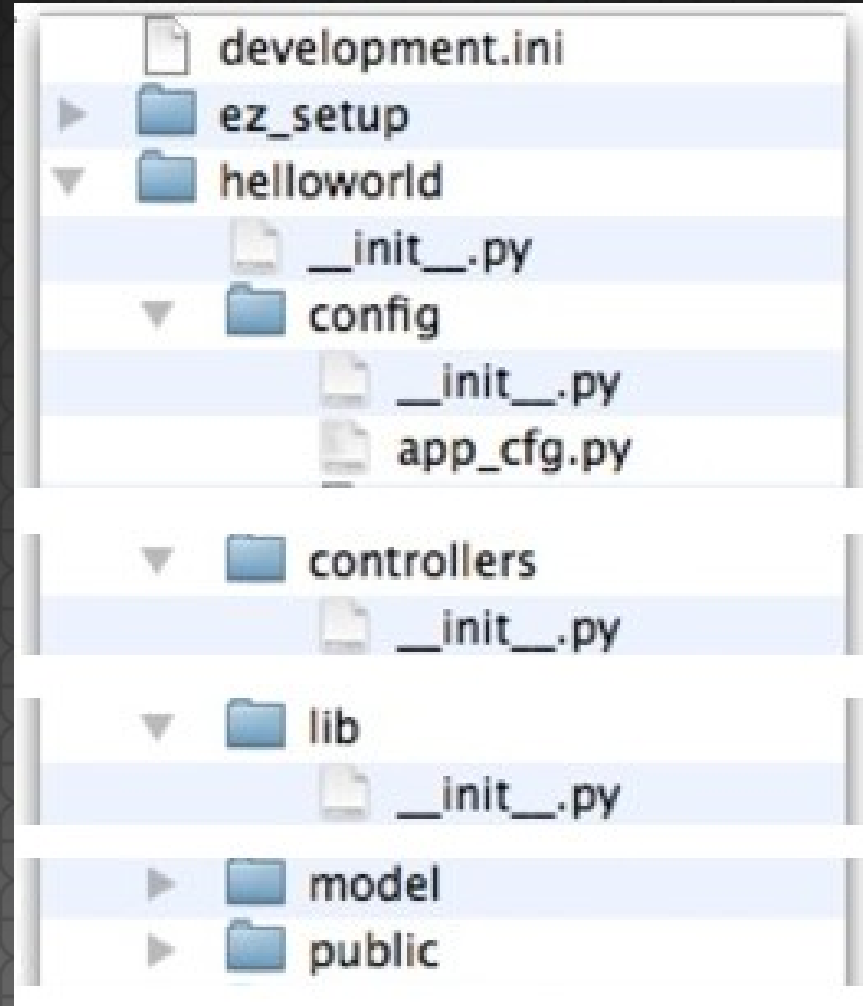
MVC - Design pattern



Turbogears



Turbogears



Advantages

- All in one
- Lots of surrounding tools
- Easy integration of the different component
- Easy generation of the model

- Automated page generation
 - Admin page to edit raw object in TG

Problems

- High-coupling b/w the elements
- Technologies change
 - Libraries change
 - SO vs SA
 - Libraries die
 - Samadhi (openid for TG1)
- Way of working changes
 - Mapping vs declarative in SA

Micro-(web)-framework



- Light-weight
- Focus on content
- Plugins based

Advantages

- Not much dependencies
- Flexible
- Extendable

Disadvantages

- More work
 - No/Little automation
- Different framework

Design

- Decoupling front and back
 - Back
 - Controller
 - Model
 - Front
 - User interface
 - Auth...

Design

- Python library
 - CLI ?
 - Python API ?
 - Uni-tests easy
- Web-front end
 - Web (REST) API
 - Auth ?
 - Unit-tests (harder)

Design

- Advantages
 - Front and back evolve differently
 - Technology can change
 - No more coupling to one framework
 - Most work: if template engine changes
 - Tests front and back separately

Design

- Disadvantages
 - Flexibility ?
 - Plugins ?
 - Different way of thinking
 - Some level of API compatibility across releases

Unit-tests

- (-) More code to write
- (-) Time consuming (at first)
- (+) Stability
- (+) Early problem detection system
 - `#!/\ ==` Test if it works **and** if it does not work
- (+) CI is cool ;-)

Conclusions

- Large frameworks
 - (+) all in one
 - (+) good tools
 - (+) simplify your life
 - (-) Flexibility
 - (-) Updates == updates everything in one go

Conclusions

- Micro frameworks
 - (+) Flexible
 - (+) Simple
 - (-) More work
 - (-) No automation

Conclusions

- Design
 - (+) Flexible
 - (+) Updates = update one or the other (or both (-))
 - (+) testing might be easier
 - (-) Two different projects
 - (-) Plugins ?
- Unit-tests :-)

Questions?



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