

# Just Run It

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# Just Run It

Don't install

Just run

```
docker run
```

## Let's meet



William Bartlett, TreepTik

- ▶ Agile Coach, Dev
- ▶ Docker enthusiast
- ▶ Windows detractor

*"Use the right tool for the job"*

# A Day in the Life



# So?

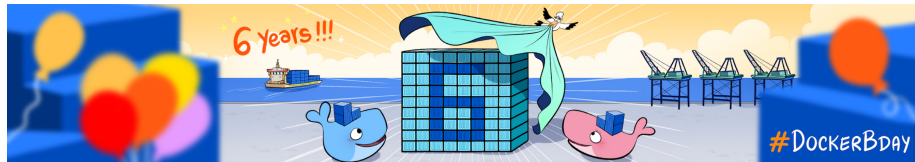
## Problem

How do you work with varying tech stacks without going mad?

## Solution

Use containers!

# It's not Docker's 2nd birthday



## We know

```
$ sudo apt install mysql
```

```
$ docker run mysql
```

```
$ docker-compose up -d
```

Really?

```
$ docker run ... maven
```

# Outline

Related Solutions

Maven Wrapper

Haskell Stack

LaTeX Presentation



# Source Code

All source code at

<https://gitlab.com/namrats/just-run-it>

A link to the slides will be tweeted.

# Section 1

## Related Solutions

# Related Solutions

- ▶ Workstation as Code w/Ansible
- ▶ Virtualization w/Vagrant
  
- ▶ Virtualenv/Pipenv for Python
- ▶ NPM for Node
  
- ▶ Cloud IDE w/Eclipse Che

## Section 2

# Maven Wrapper

# Maven Wrapper

## Requirements

- ▶ Shell
- ▶ Docker

```
UID=$(id -u)
GID=$(id -g)
```

```
MAVEN_VERSION="3.6.0-jdk-8-alpine"
MAVEN_OPTS="-Duser.home=/var/maven"
```

```
exec docker run -it --rm -u $UID:$GID \
  -v $HOME/.m2:/var/maven/.m2 \
  -v $PWD:/usr/src/$(basename $PWD) \
  -w /usr/src/$(basename $PWD) \
  -e HOME=/var/maven \
  -e MAVEN_CONFIG=/var/maven/.m2 \
  maven:$MAVEN_VERSION mvn $MAVEN_OPTS "$@"
```

# Maven Wrapper

## Concerns

- ▶ Caching w/volume

## Difficulties

- ▶ IDE integration

## Section 3

# Haskell Stack

# Haskell Stack

## Requirements

- ▶ Shell
- ▶ Docker
- ▶ Stack

stack.yaml

```
resolver: lts-13.14
```

```
docker:  
  enable: true
```



# Haskell Stack

## Concerns

- ▶ IDE integration w/LSP

## Difficulties

- ▶ Image size

## Section 4

# LaTeX Presentation

# LaTeX Presentation

## Requirements

- ▶ Shell
- ▶ Docker
- ▶ Make

```

DOCKERFLAGS=-it --rm -u $(UID):$(GID) \
  -v $(LUATEX_CACHE):$(LUATEX_CACHE) \
  -v $(CURDIR)/fonts:/usr/local/share/fonts \
  -v $(CURDIR):/data \
  -w /data \
  -e HOME=/tmp

```

```

TEX_SCRIPT=for run in $(seq 2) ; \
do $(TEX) $(TEXFLAGS) $< ; \
done

```

```

$(PROJECT_NAME).pdf: main.tex *.tex $(LUATEX_CACHE)
docker run $(DOCKERFLAGS) $(DOCKERIMAGE) \
  sh -c '$(TEX_SCRIPT)'

```

# LaTeX Presentation

## Concerns

- ▶ Caching w/volume

## Difficulties

- ▶ IDE integration

## Section 5

# Conclusion

# Conclusion

- ▶ Wrapper shell script
- ▶ Tool integration
- ▶ Makefile

## Future work

- ▶ More tool integration, please
- ▶ containerized desktop apps (IDE)