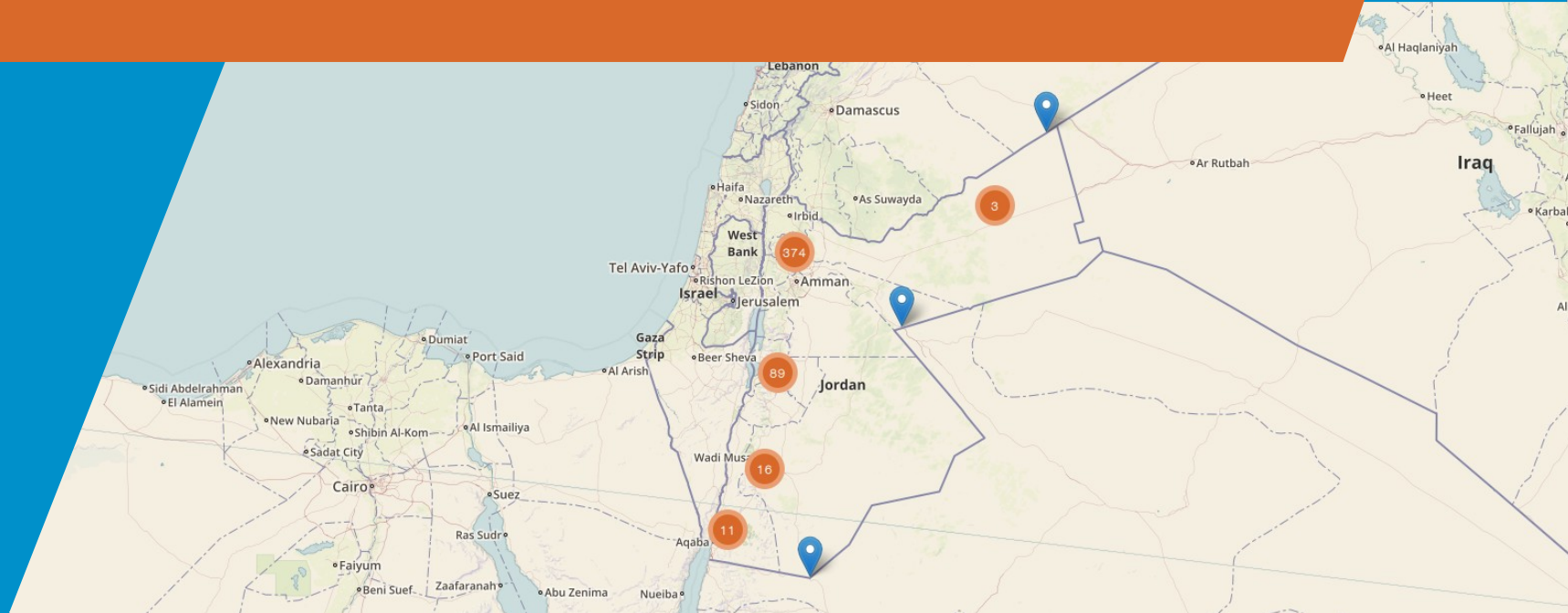




IERS · Public Health Surveillance



Meerkat Software Training
Tackling Bugs

Overview

- **Talk:** Debugging Meerkat Software [15]

Why do bugs exist?

Minimising their impact

A four step debugging strategy

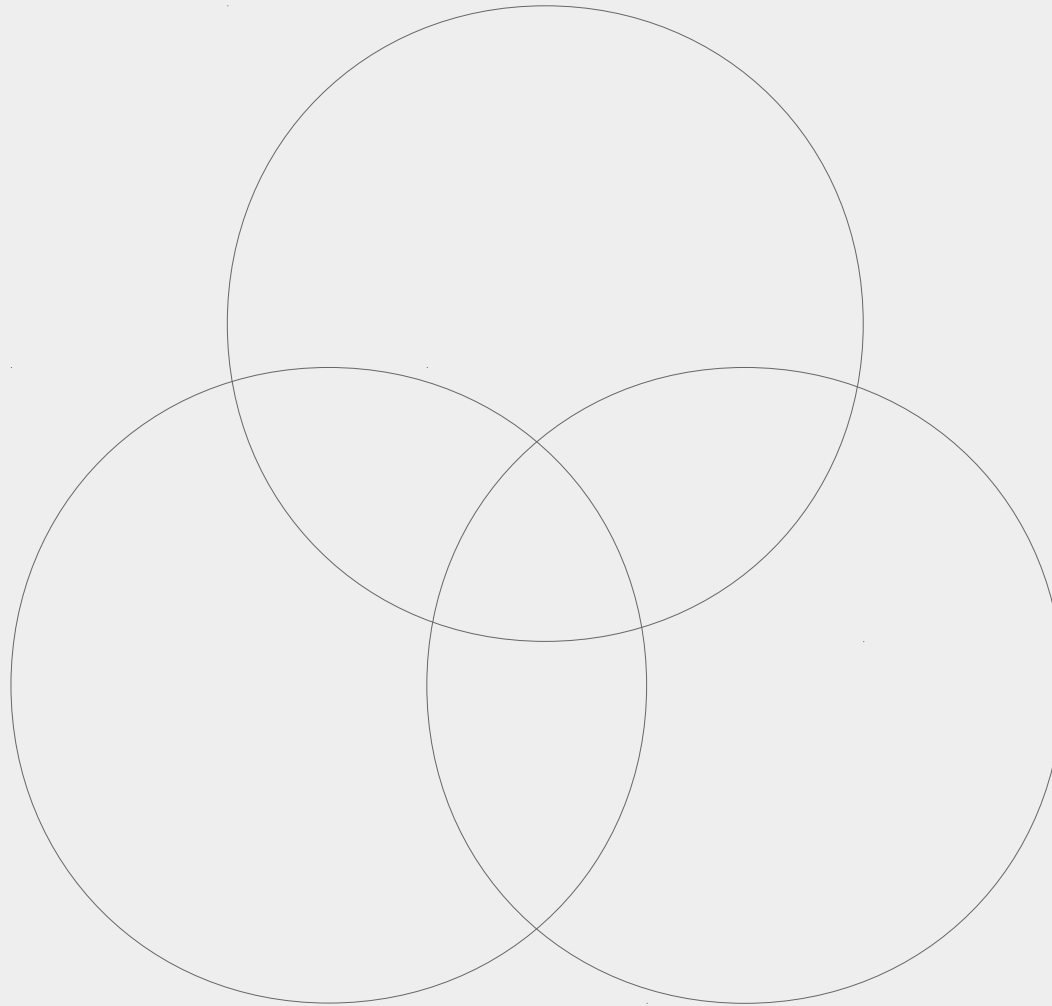
A toolbox of commands

- **Exercises:** Common issues [70]

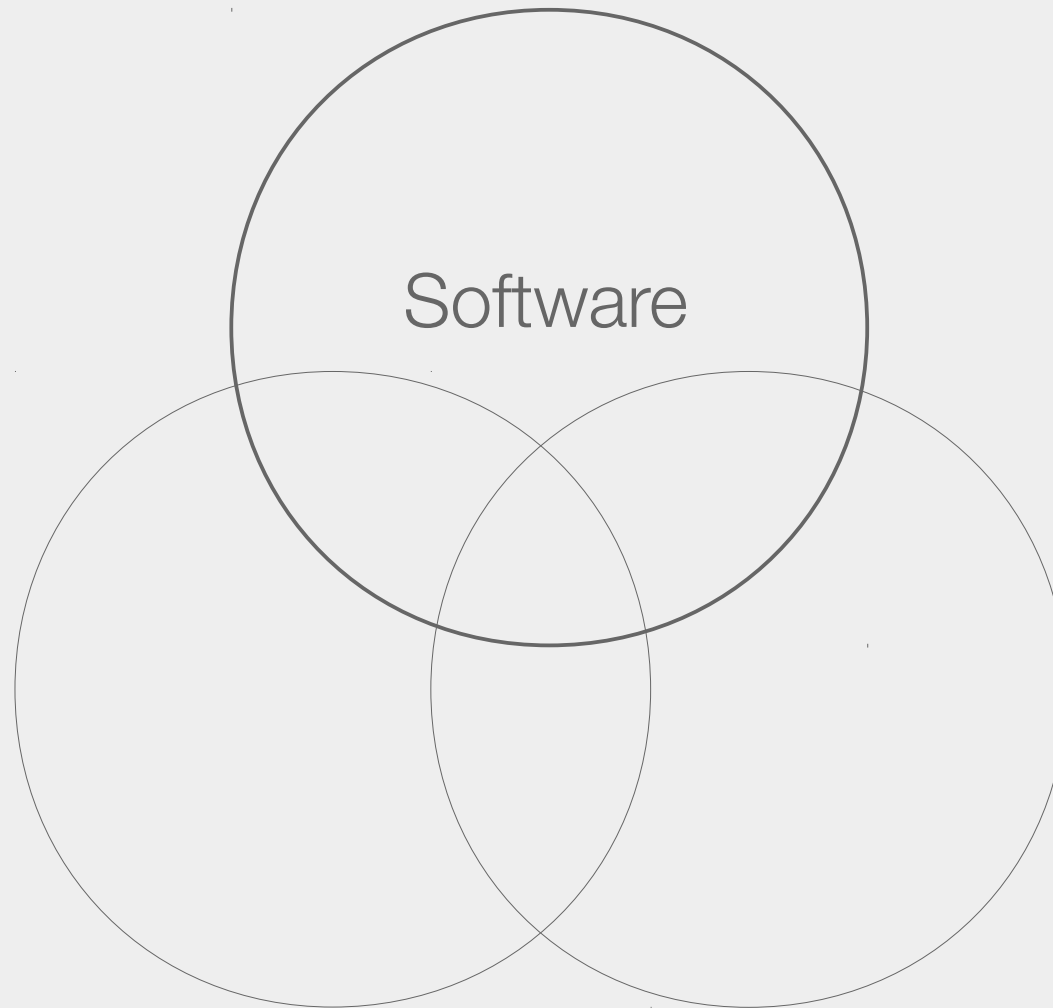
- **Summary** [5]

[Total time: 90 mins]

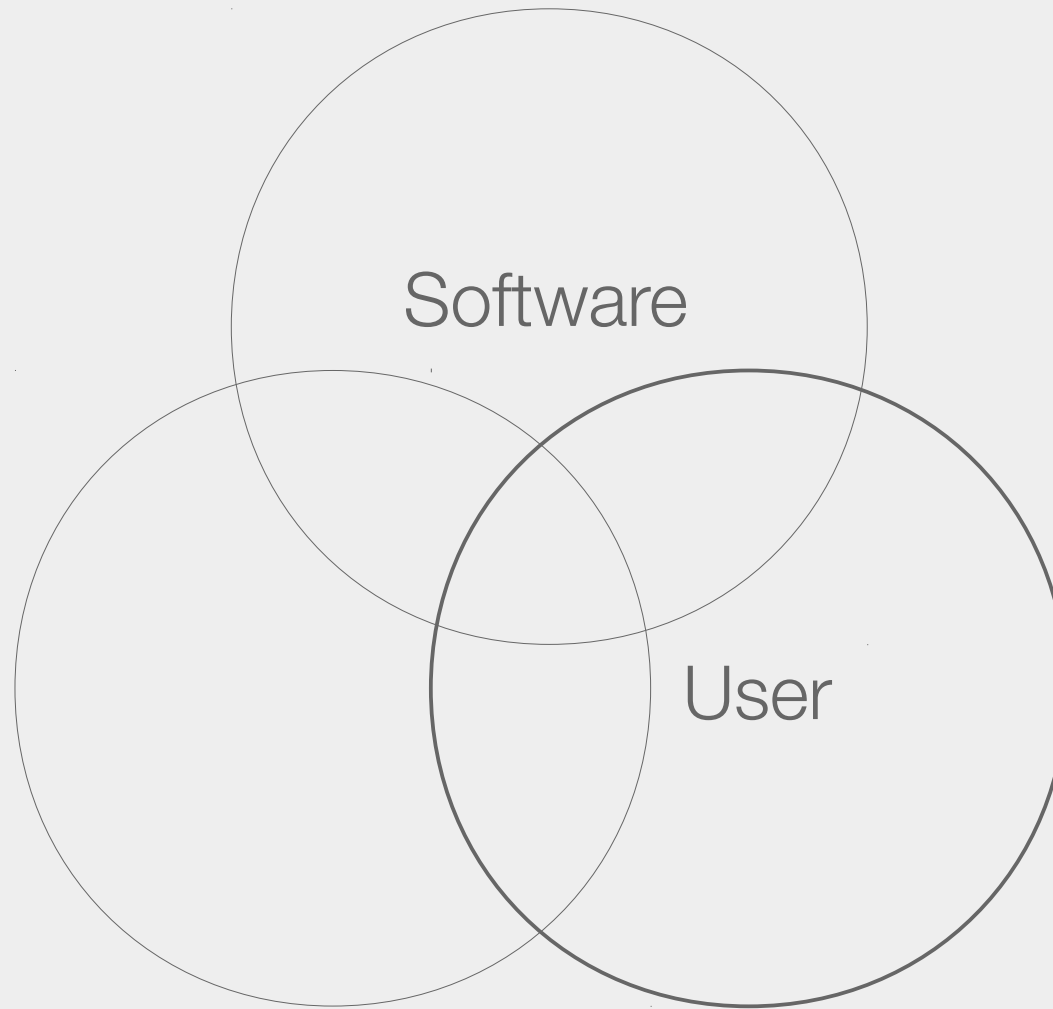
Why do bugs exist?



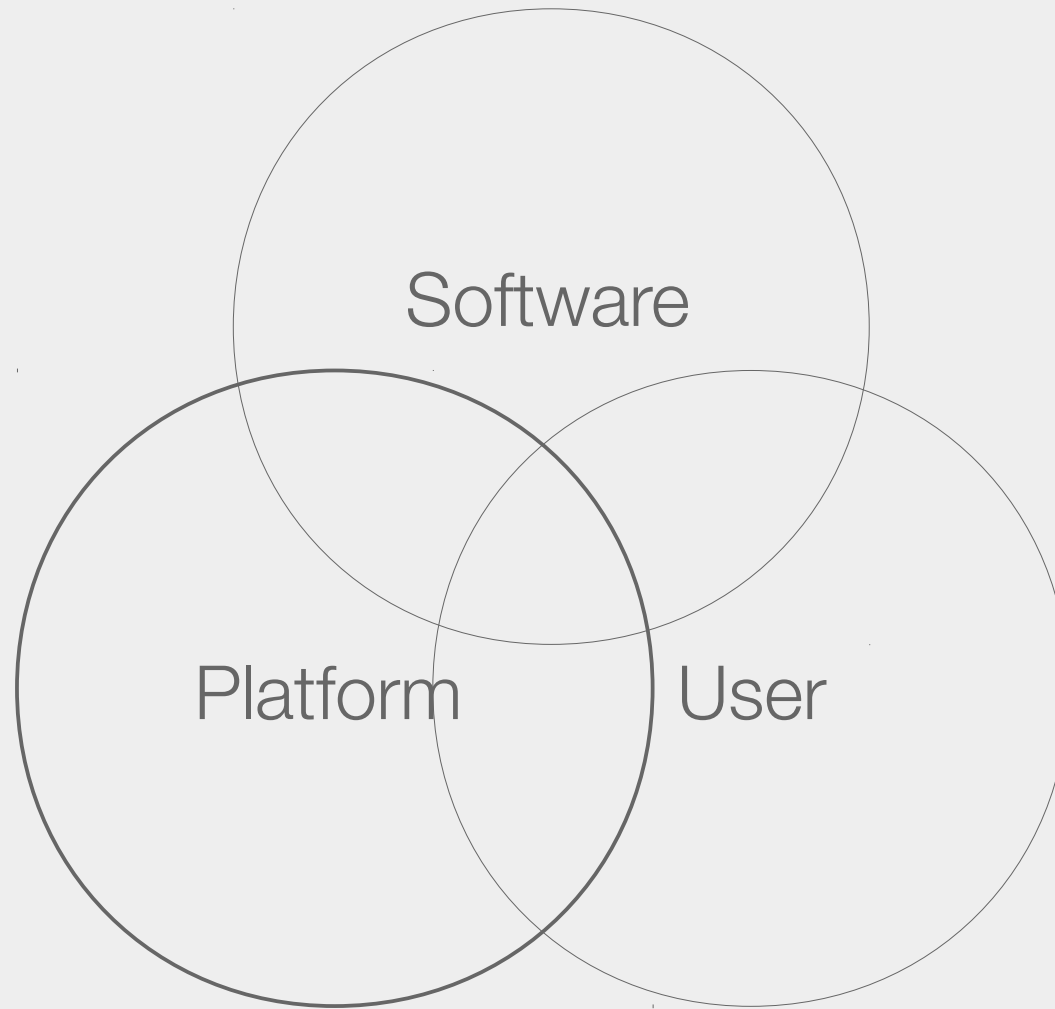
Why do bugs exist?



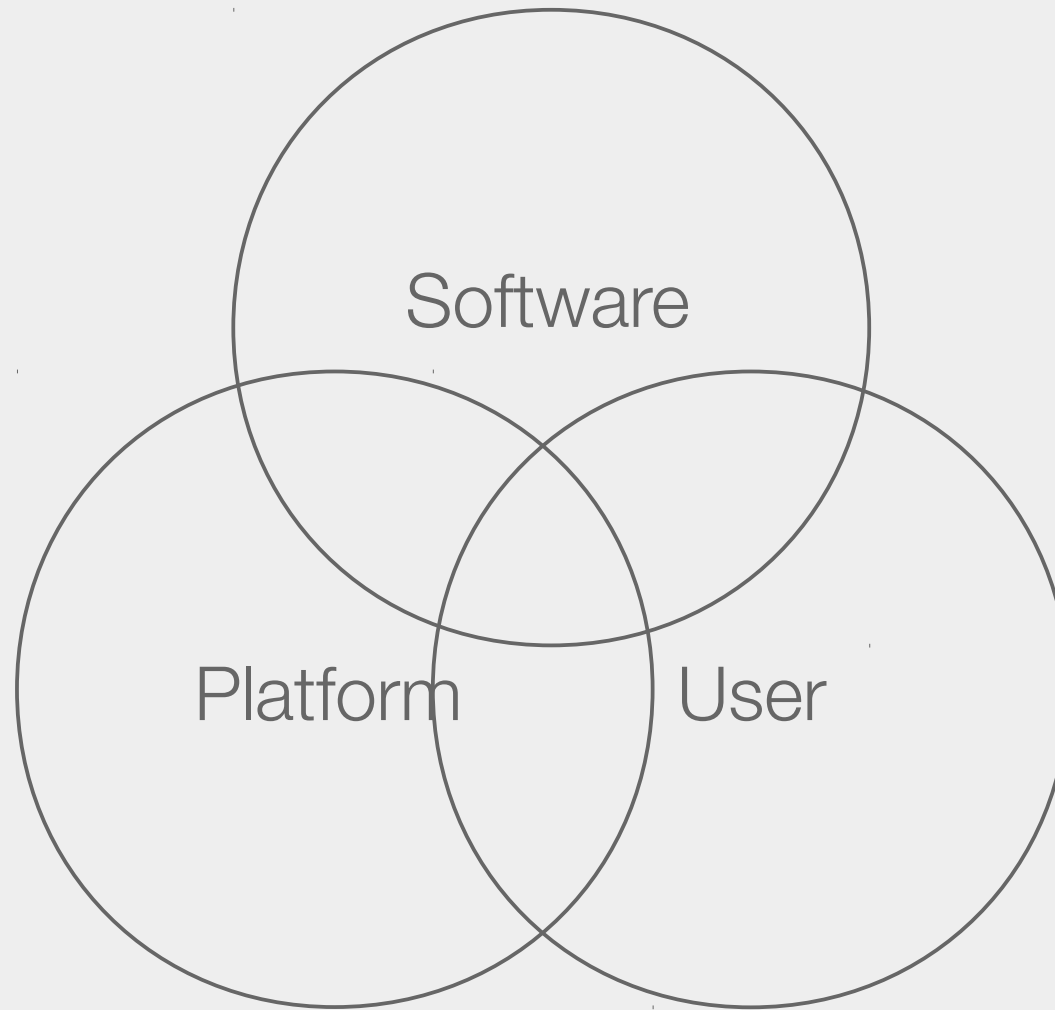
Why do bugs exist?



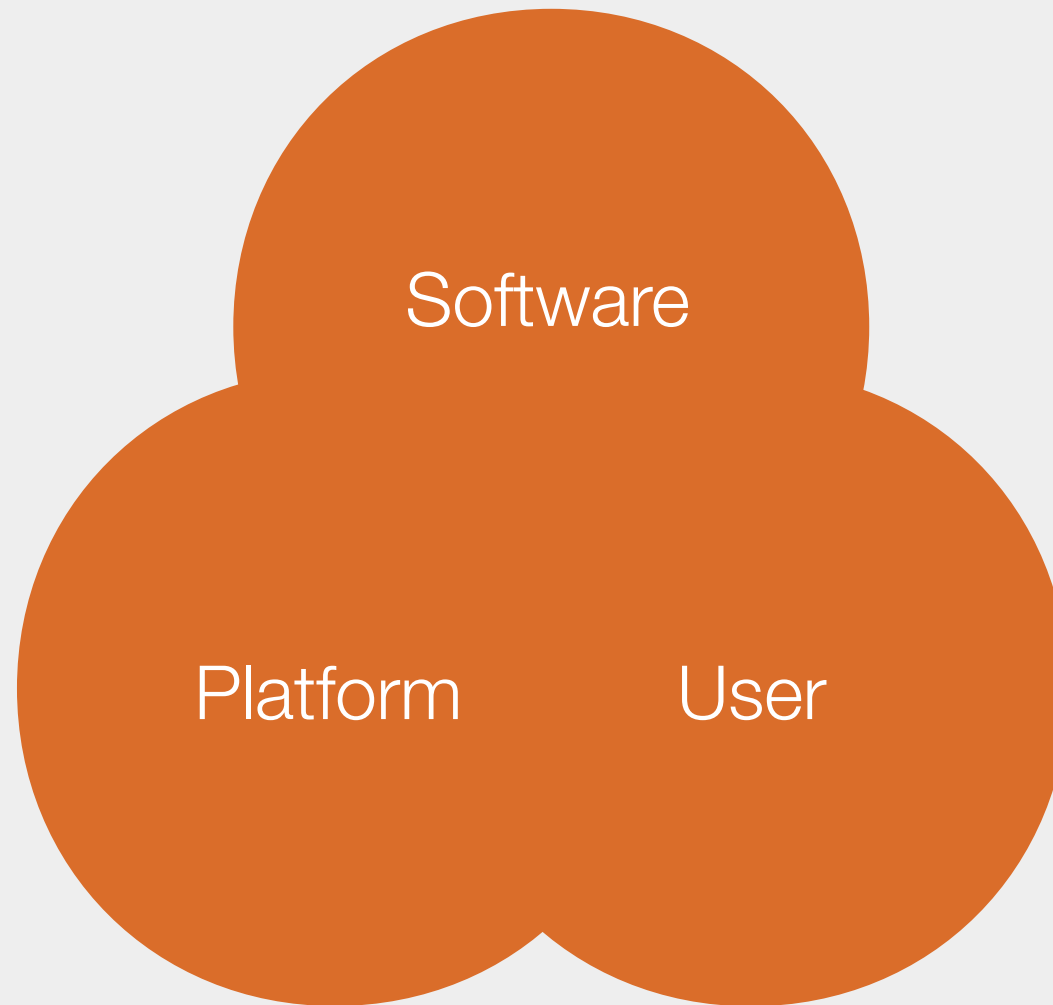
Why do bugs exist?



Why do bugs exist?



Why do bugs exist?



Minimising the impact of bugs

Proper error handling

Testing Rigs

Error Reporting

Alpha/Beta Environments

Testers

Time and Maturity

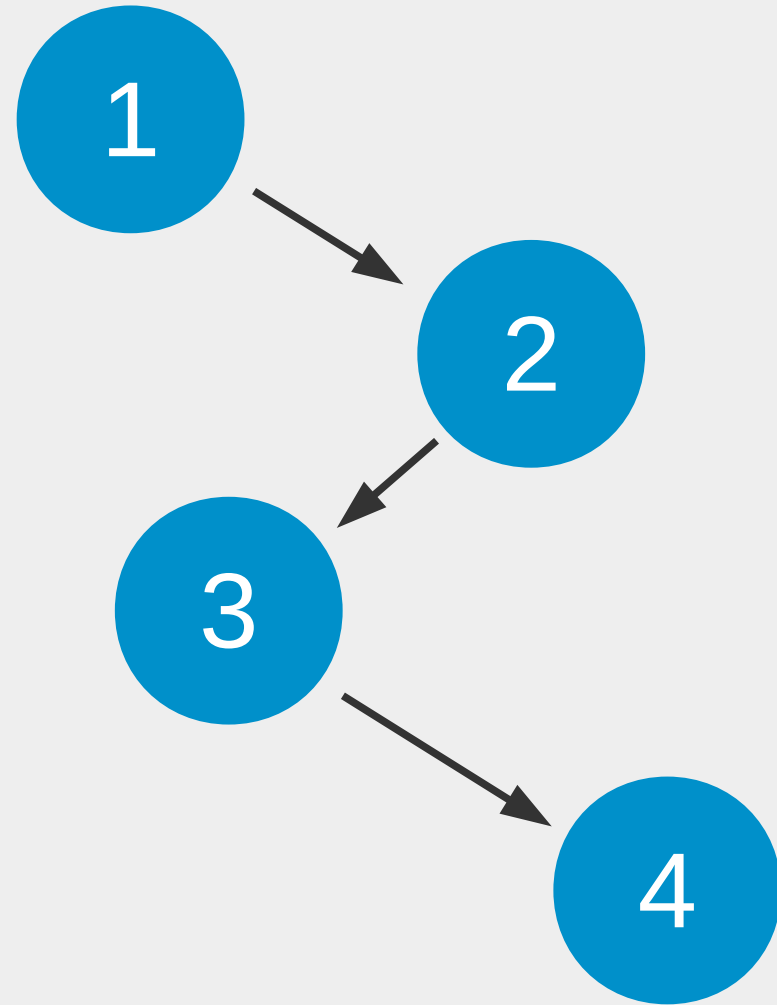
Debugging strategy

Identify

Understand

Diagnose

Fix (or report)

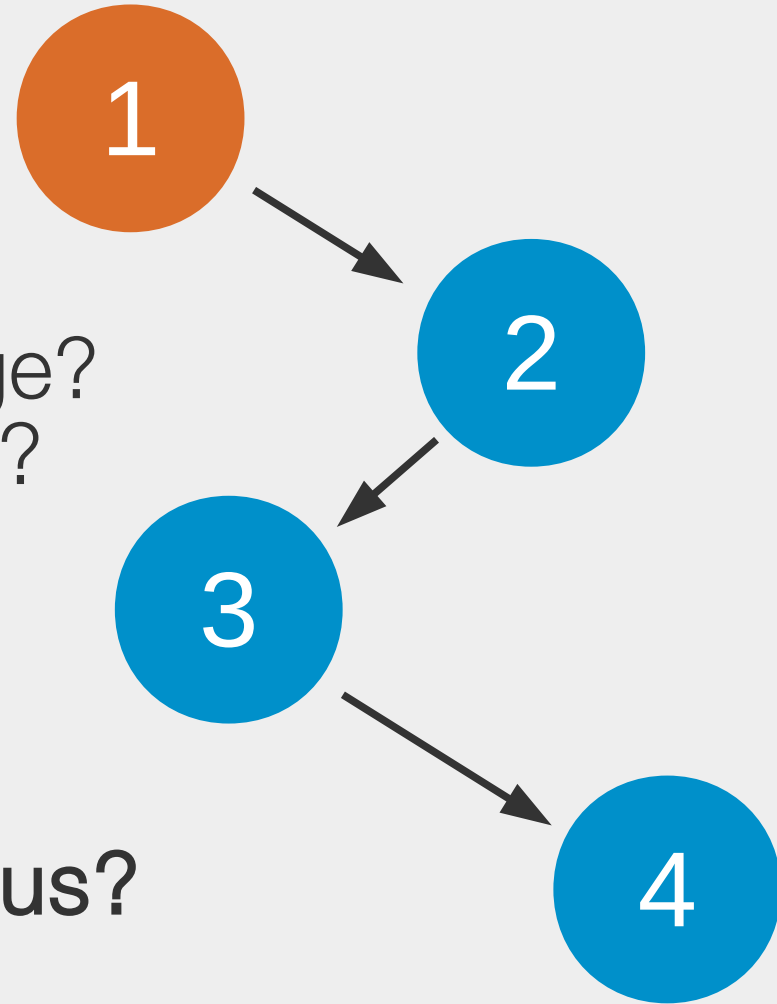


Debugging strategy

Identify

Is there an error message?
What are the symptoms?
Is the bug replicable?
Time? Browser? Page?

What does all this tell us?

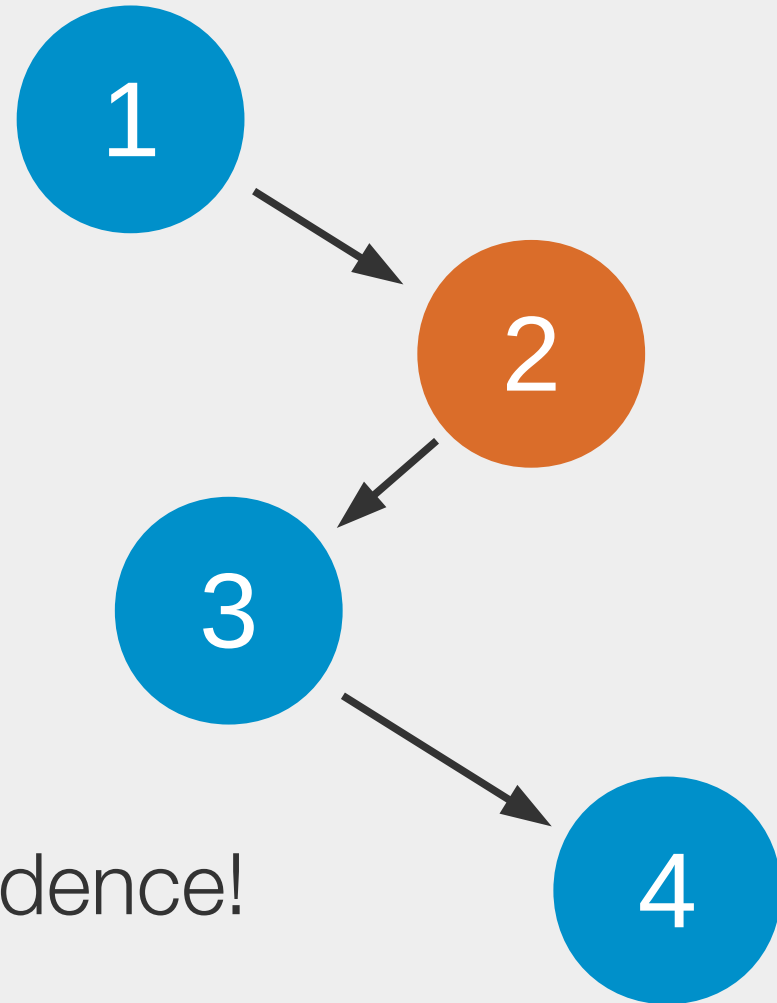


Debugging strategy

Understand

LOOK.
AT.
THE.
LOGS.

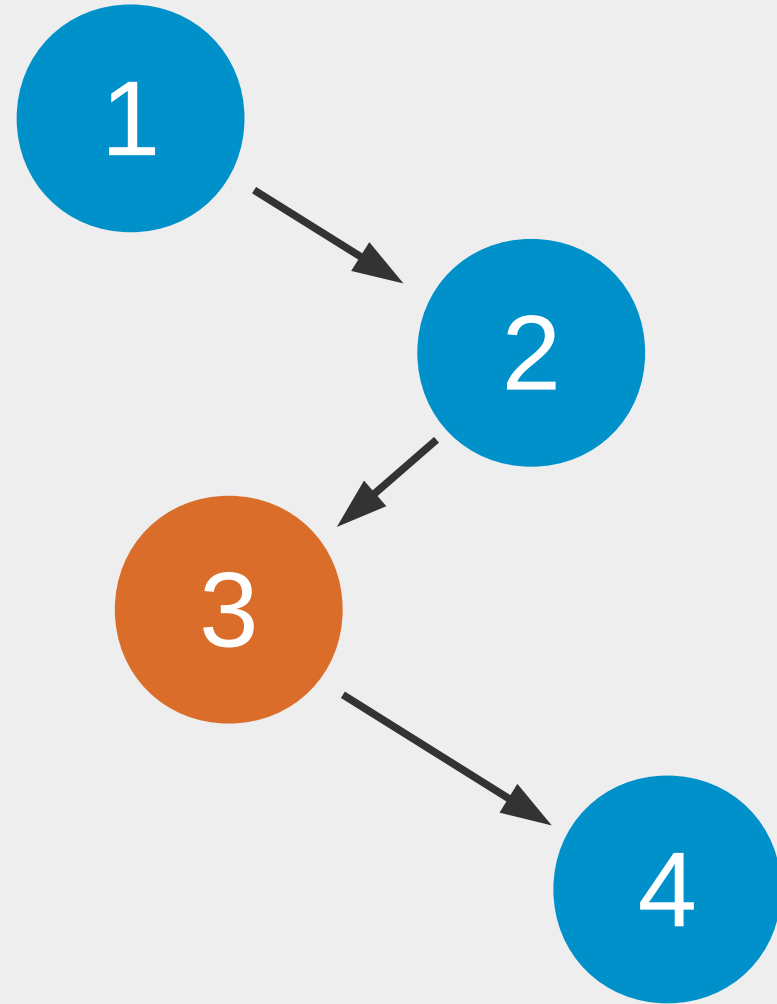
This can be hard – confidence!



Debugging strategy

Diagnose - Is it...

- User?
- Programming?
- Docker?
- Hardware?
- Network?

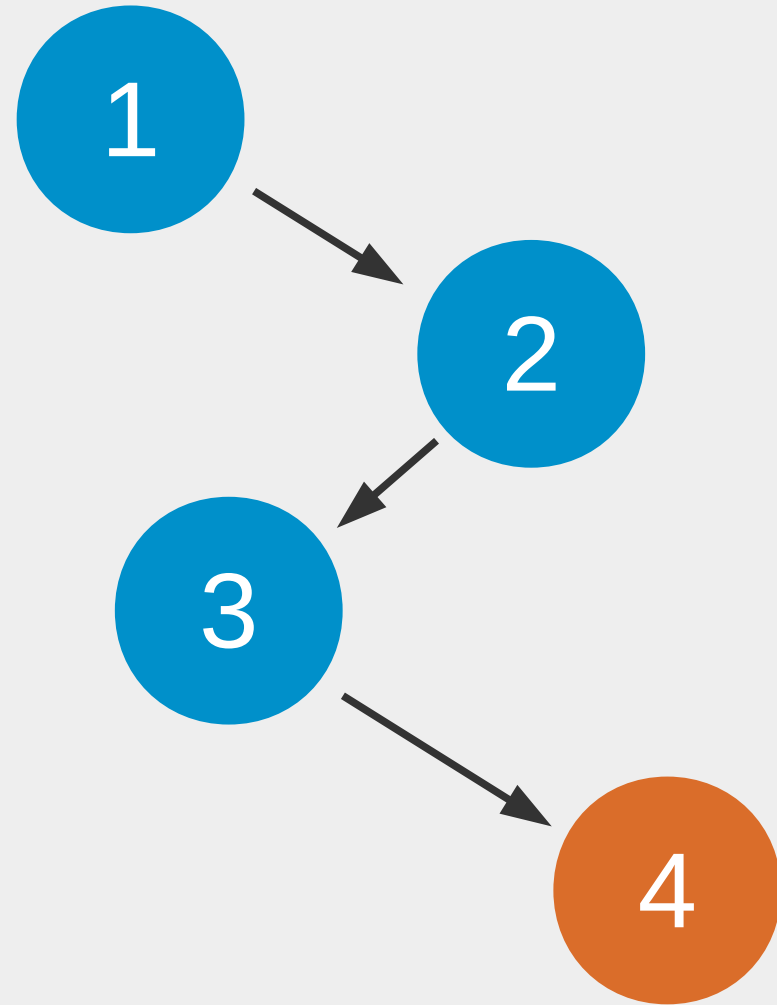


Debugging strategy

Fix or report the bug

“Toolbox” of commands

Provide all gathered info
In a bug report



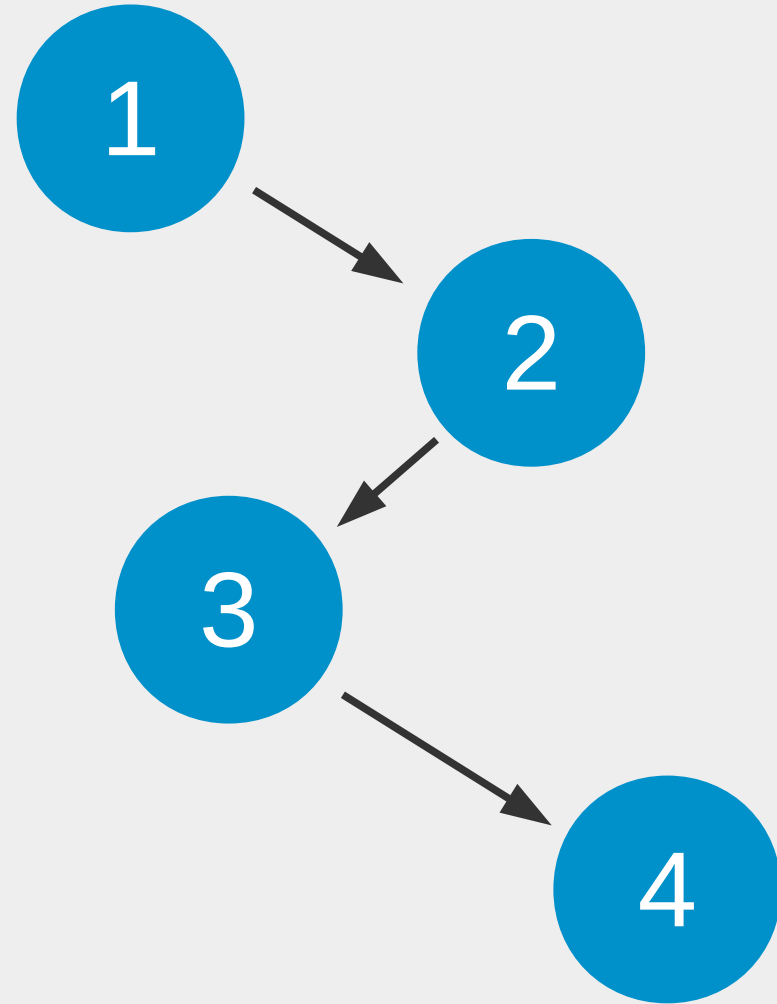
Debugging strategy

Identify

Understand (LOGS!)

Diagnose

Fix (or report)



A “toolbox” of commands

Logs

```
docker-compose logs <service>  
less /var/log/syslog
```

Docker

```
docker-compose ps  
docker-compose restart  
docker-compose down  
docker-compose up -d
```

System

```
df -h  
htop
```


Exercise: Debugging

Tackling some common issues

Summary

Four point strategy:

- Identify
- Understand
- Diagnose
- Fix or Report

Look at the logs!!!

Learn the toolbox of commands