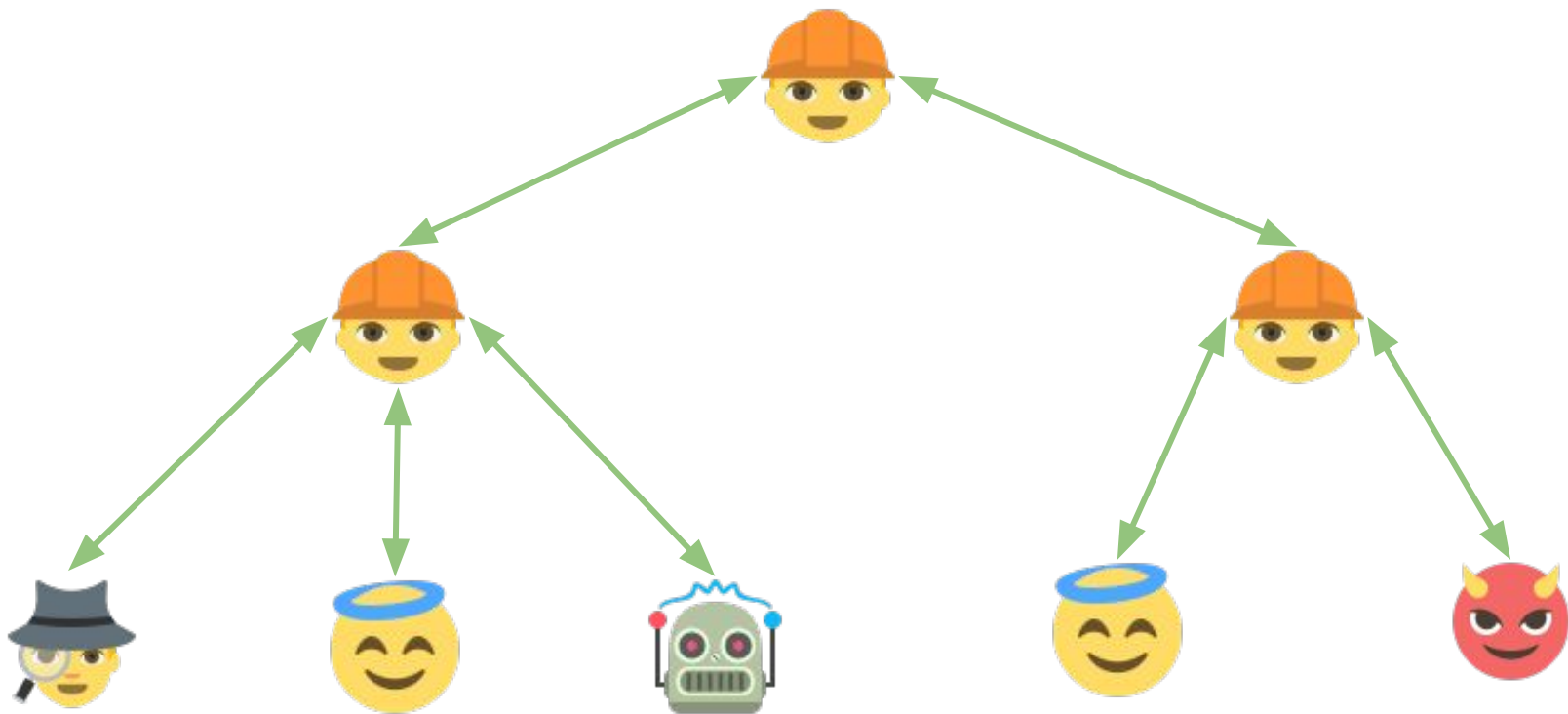# Learning to Crash with OTP

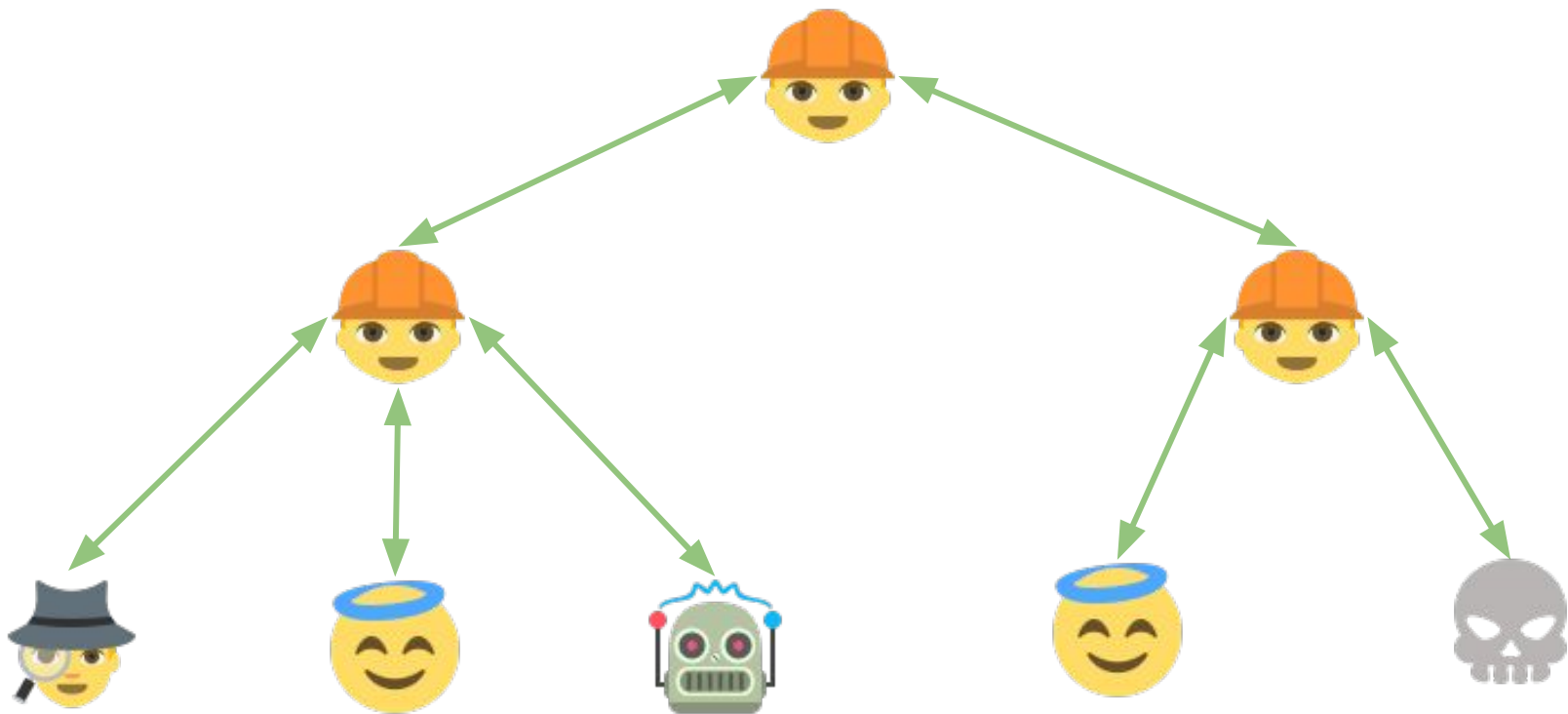## Supervision Trees and Applications

Let it crash again and again and again

- ANY process that is restarted may enter BAD state

- Crash ANY process in BAD state

- Repeat by crashing more and more of the system until in GOOD state

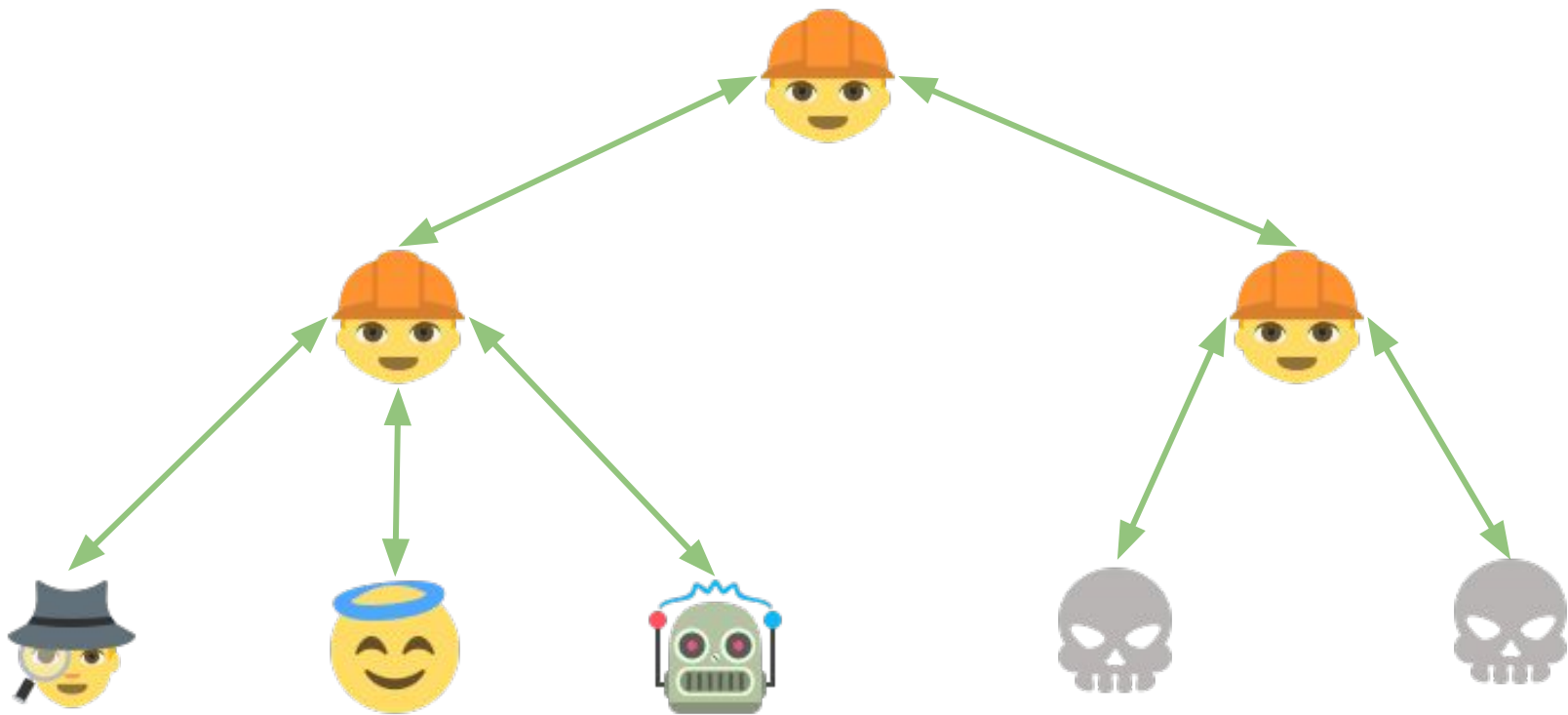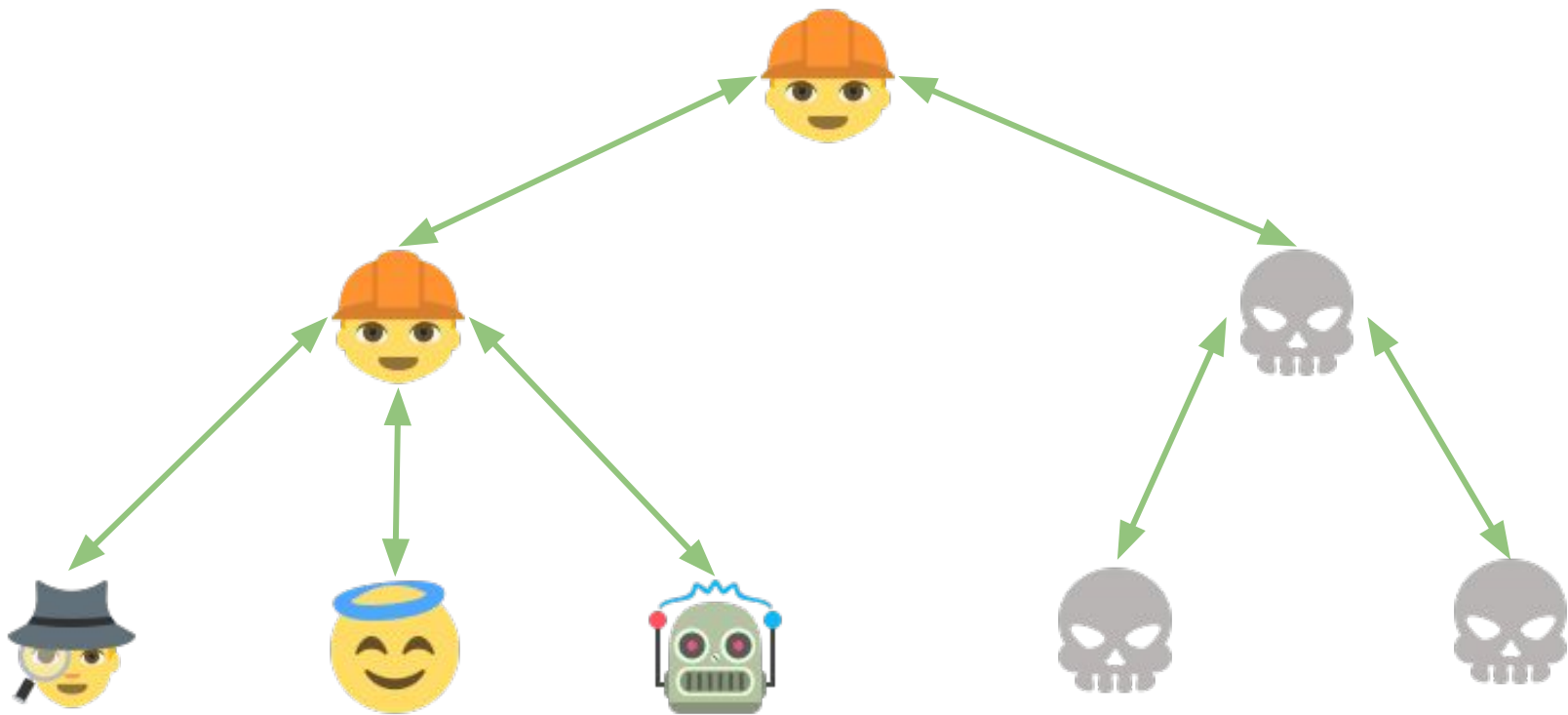- If the system fails to return to GOOD state then crash the WHOLE system
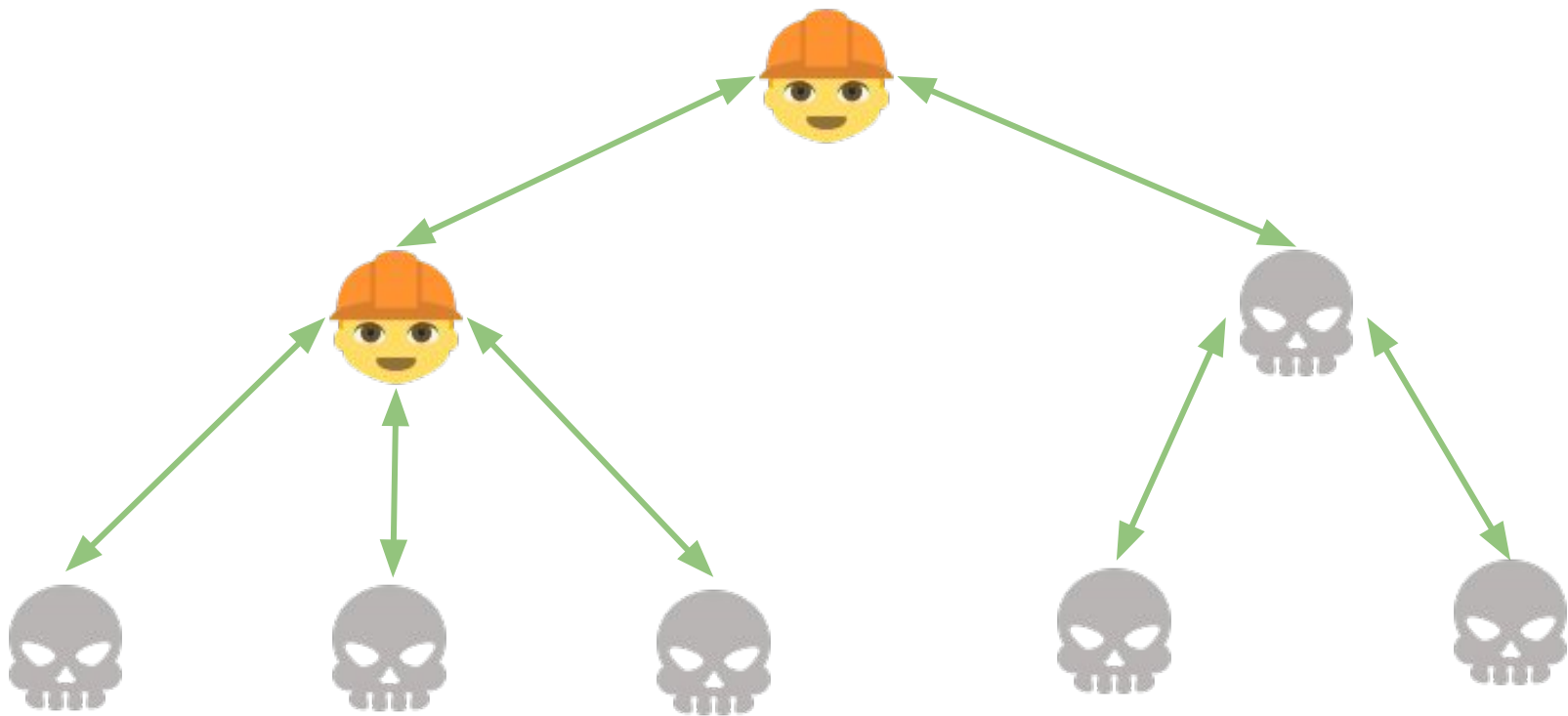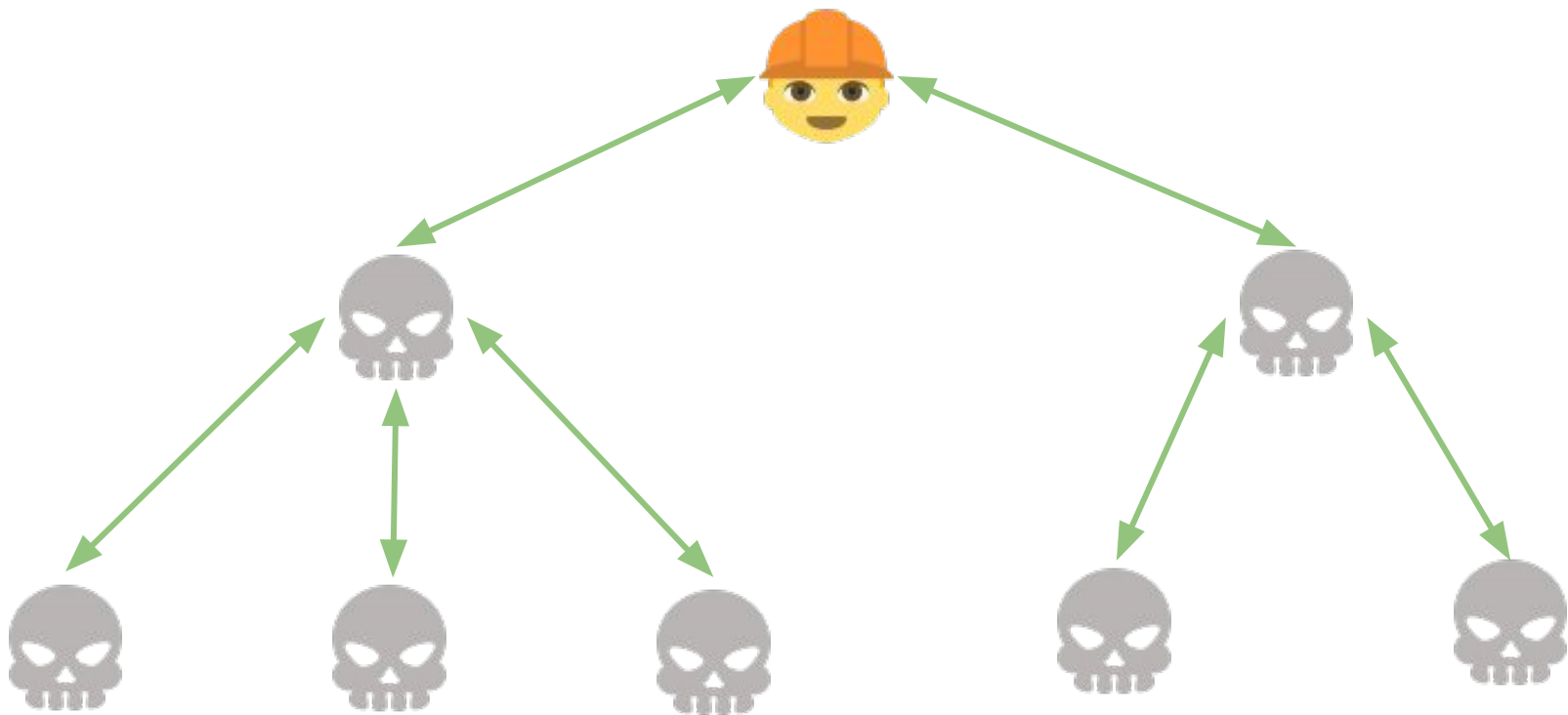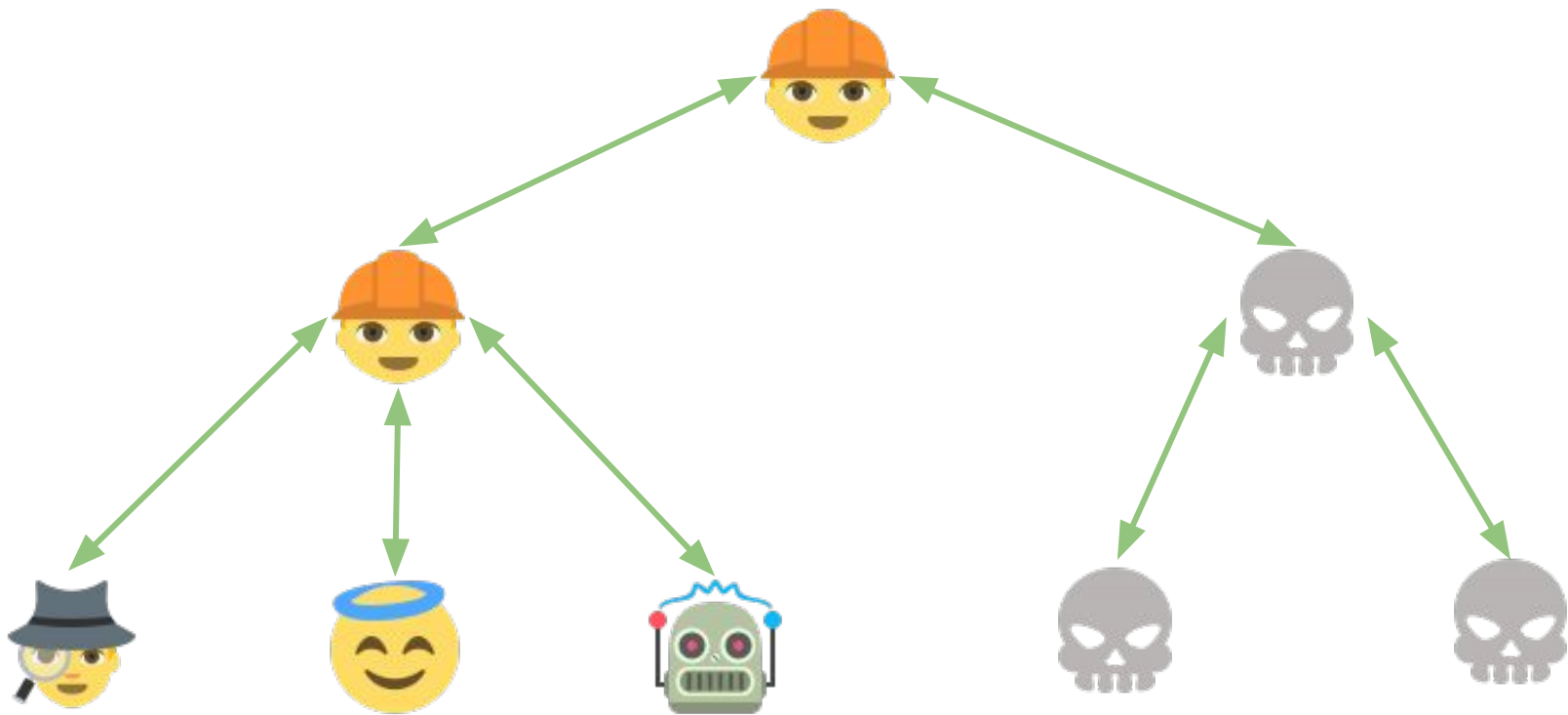
Supervision tree

Supervision tree

Supervision tree

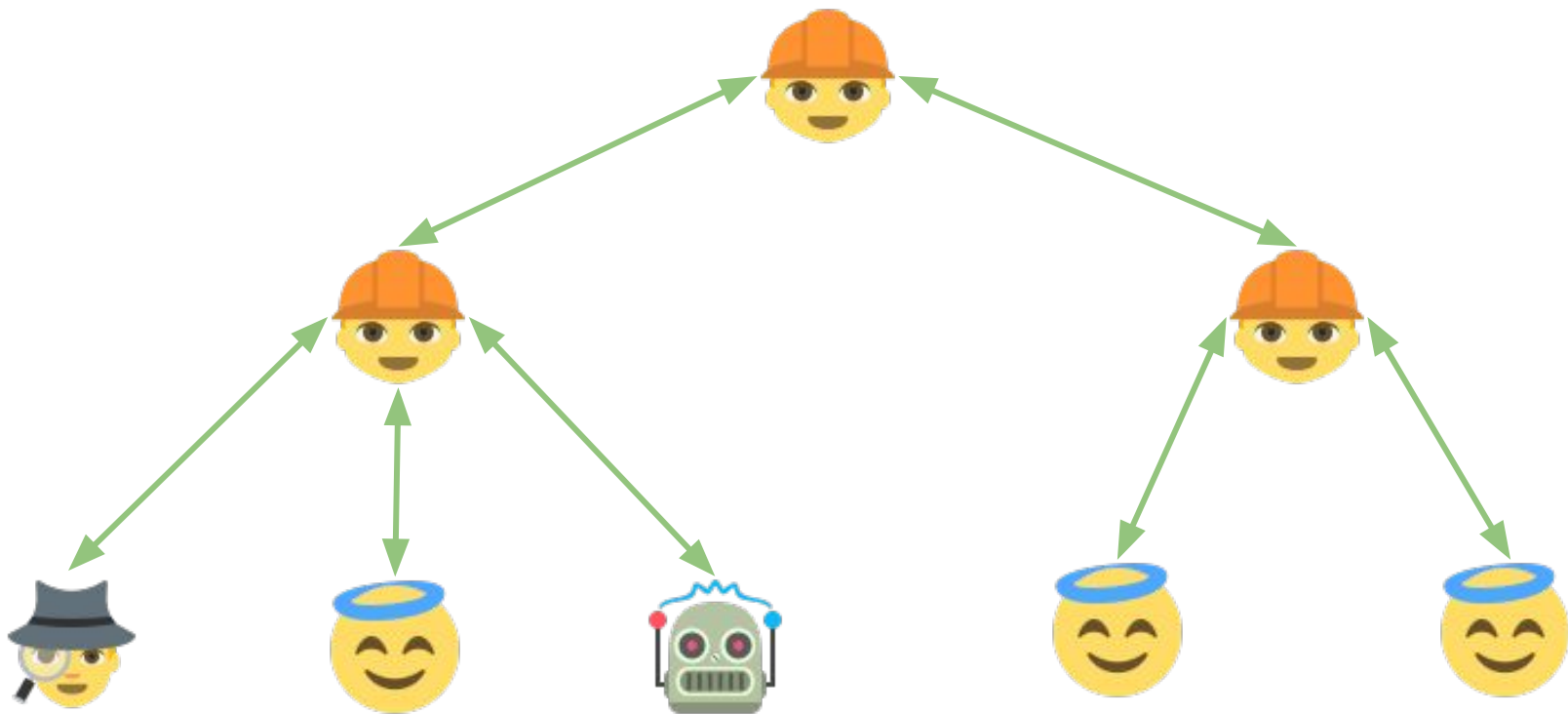# Supervision tree

Supervision tree
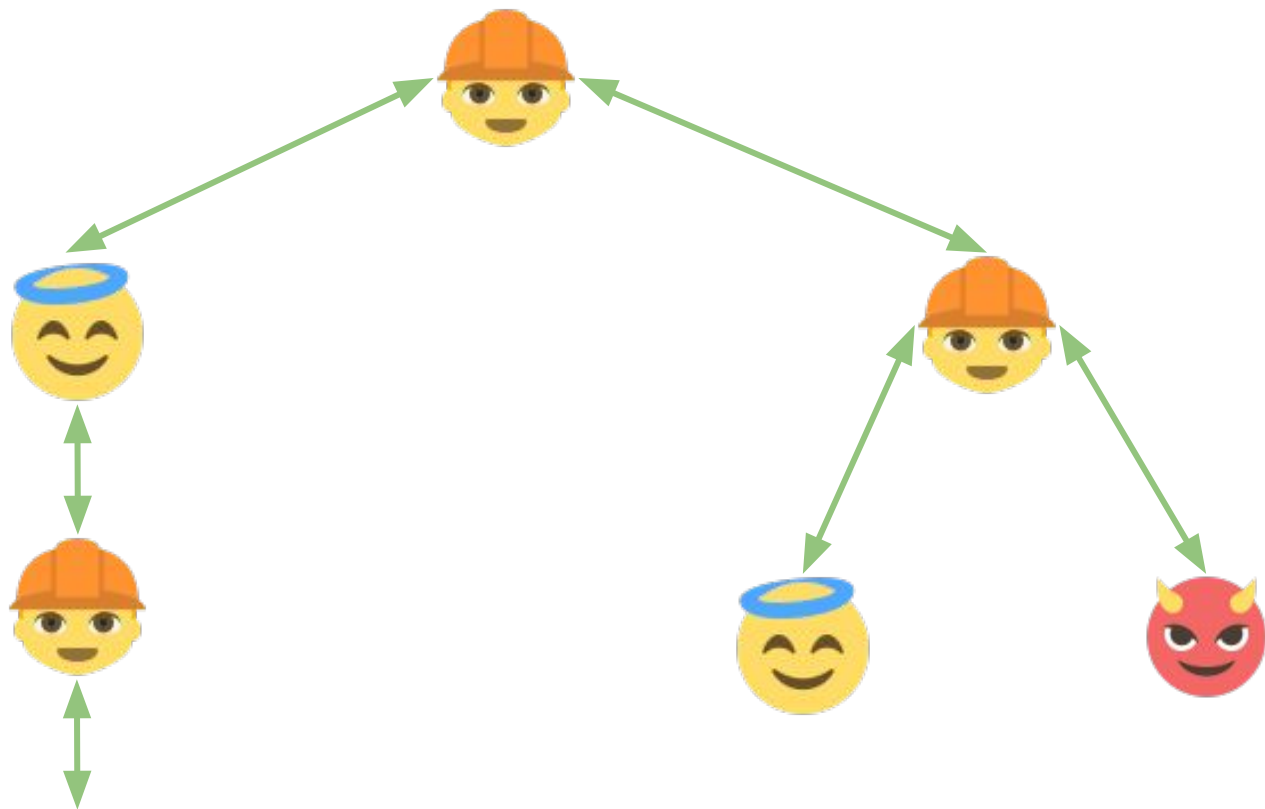
Supervision tree

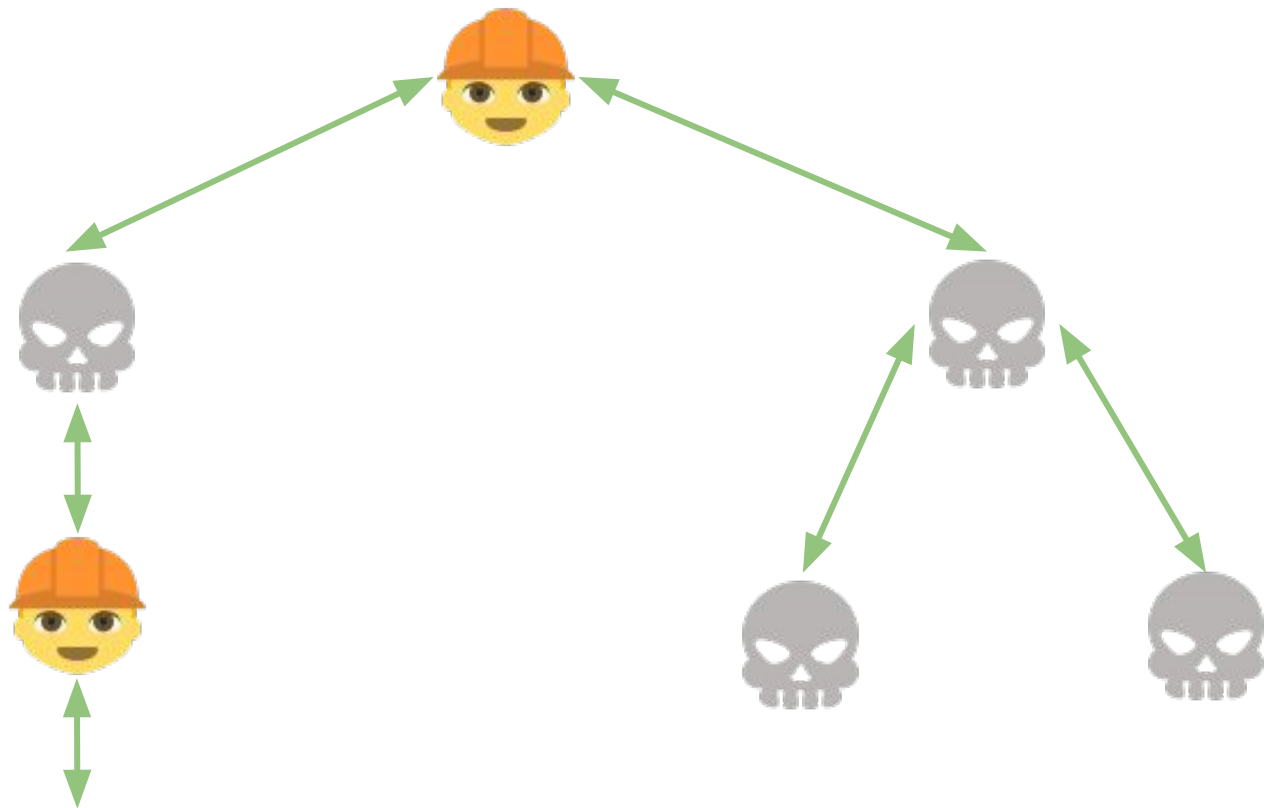# Supervision tree

Supervision tree

Guarantees

- When started all descendants have successfully started

- When terminated all descendants have completely terminated

- Descendants started in order

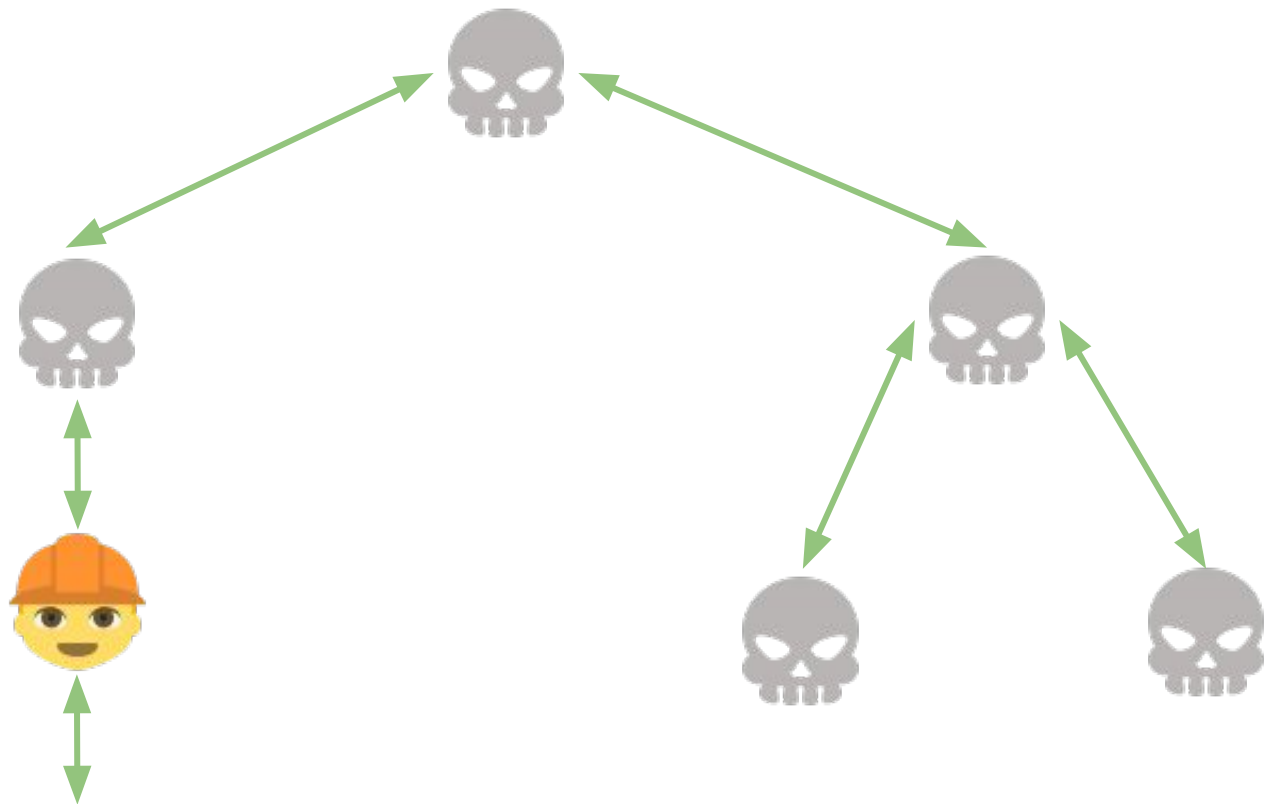- Descendants terminated in reverse order

Supervision tree

Supervision tree

Supervision tree

Application

- Application.load/1

- Application.start/1,2

- Application.ensure_started/1,2

- Application.ensure_all_started/1,2

- Application.stop/1

Restart

- :temporary

- (:transient)

- :permanent

Application problems