

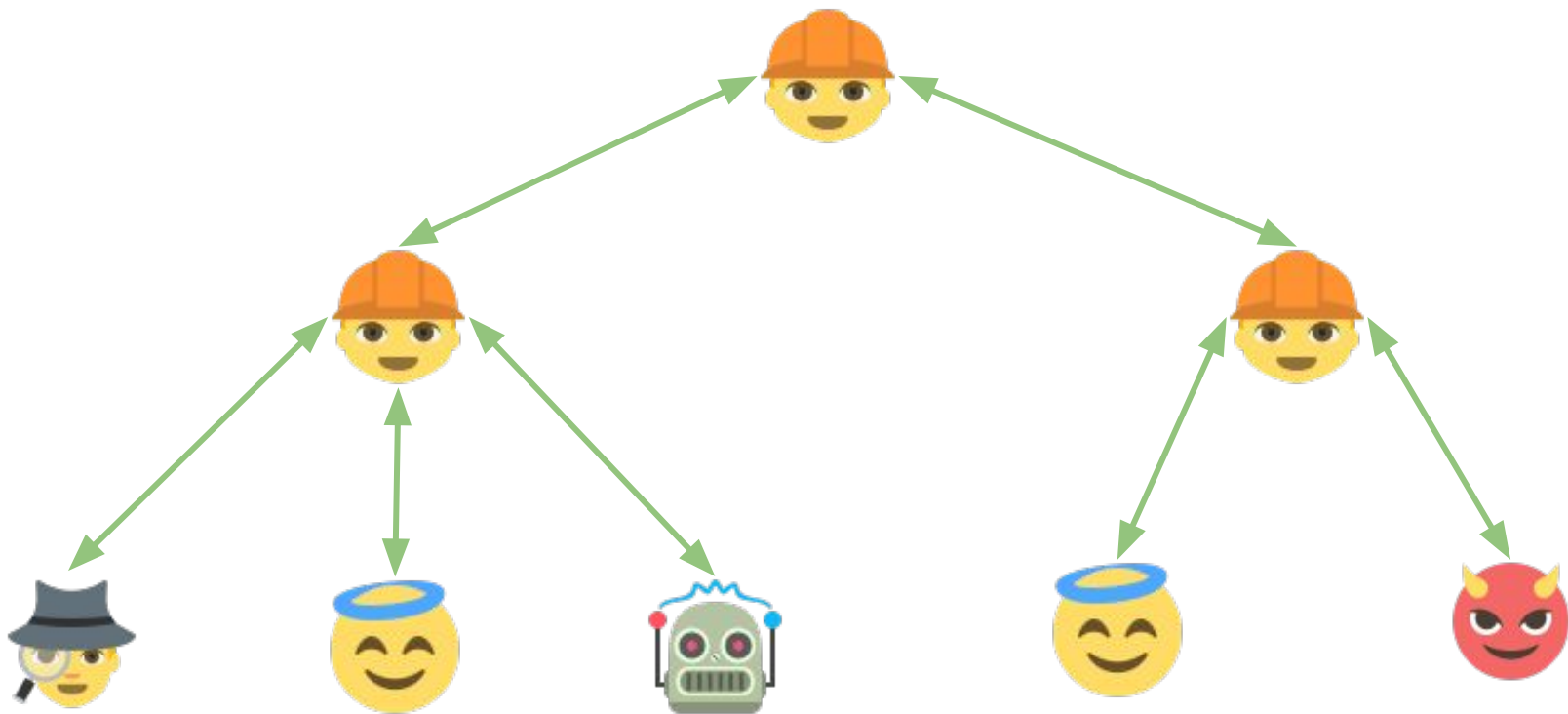
# OTP Workshop

Supervision Trees and Applications

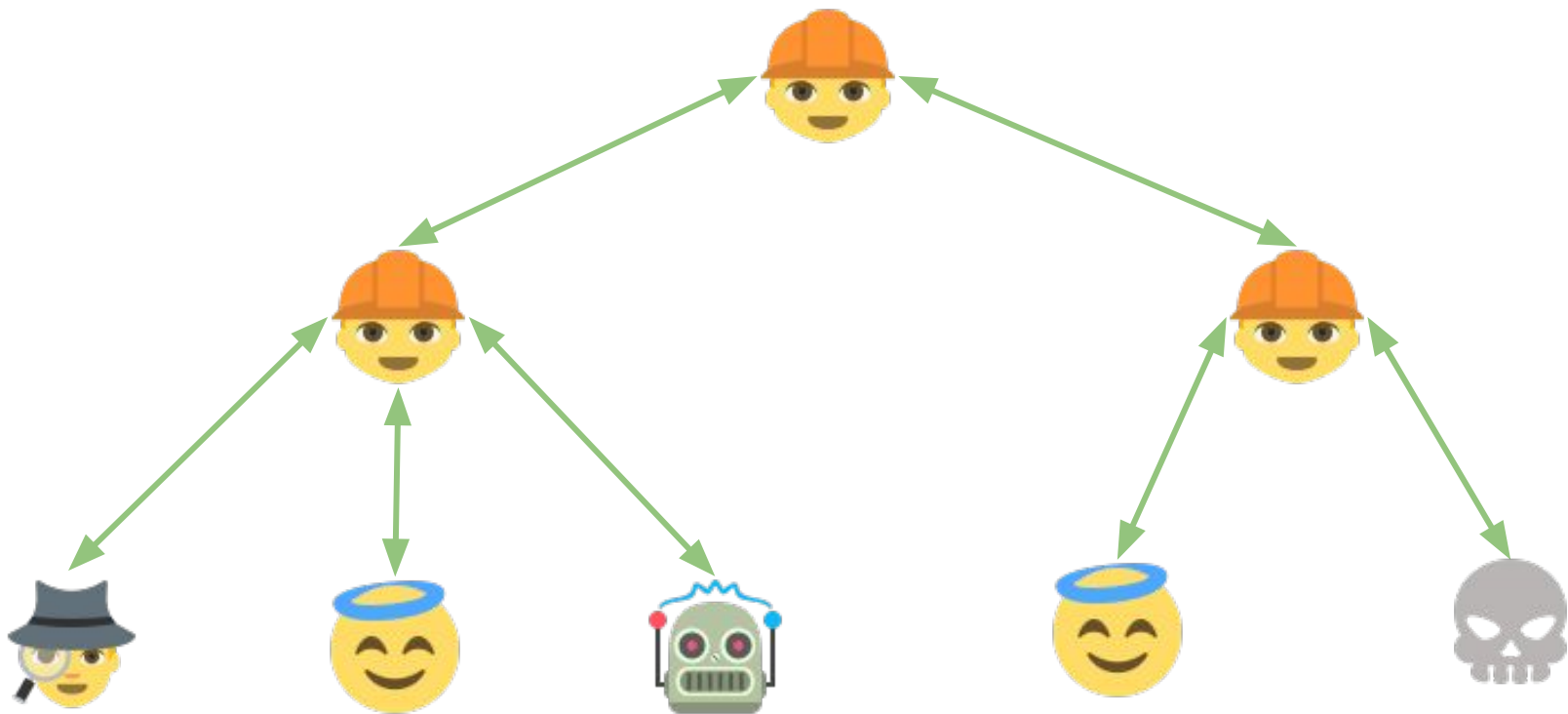
# Let it crash again and again and again

- 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

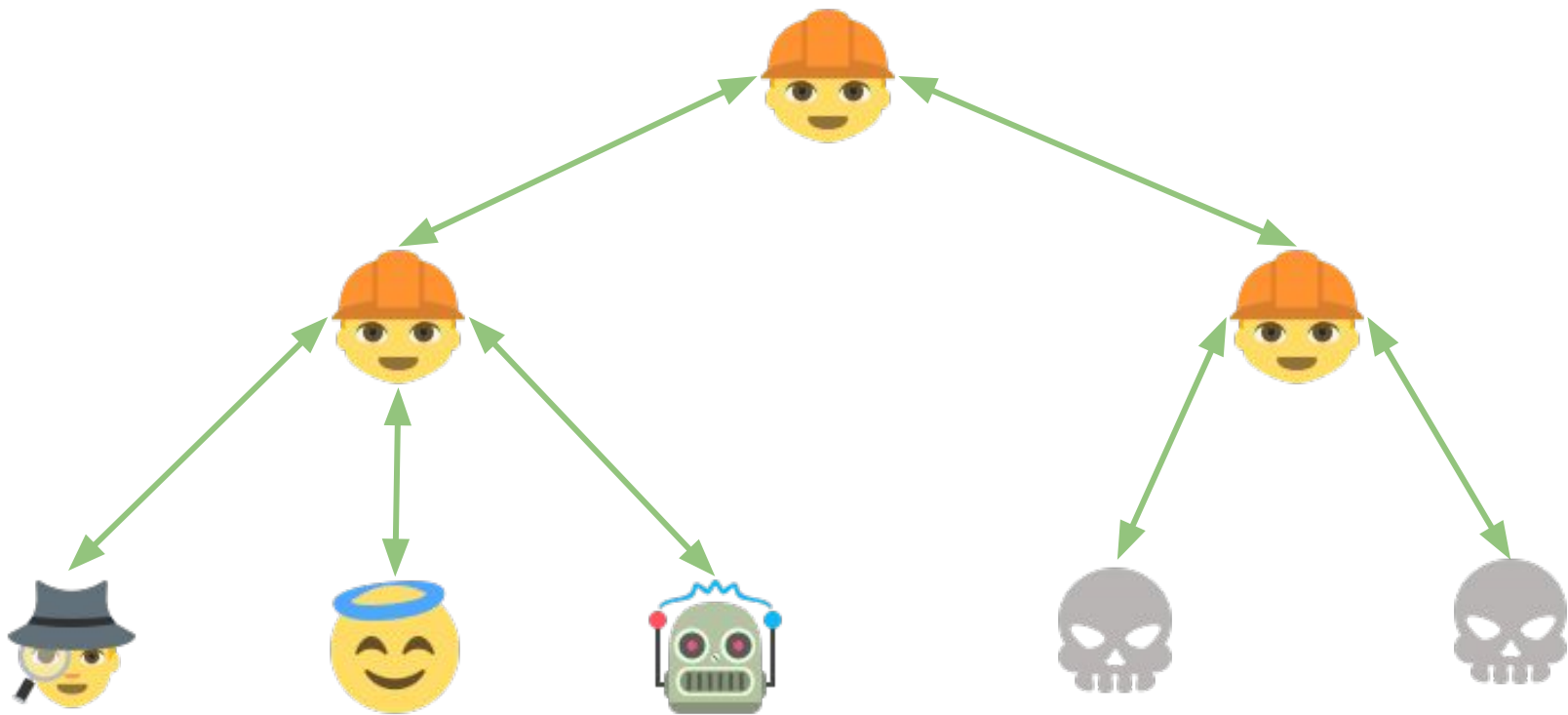
# Supervision tree



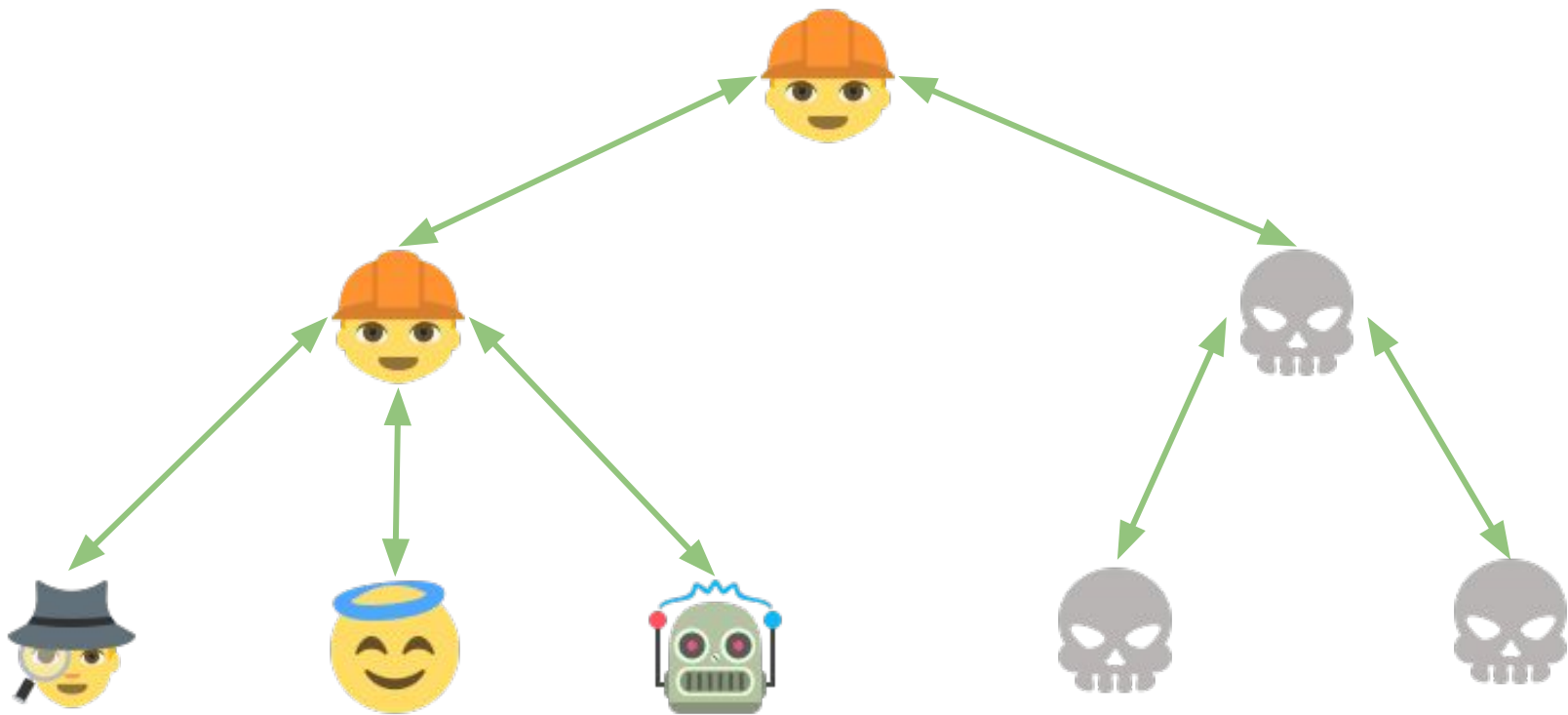
# Supervision tree



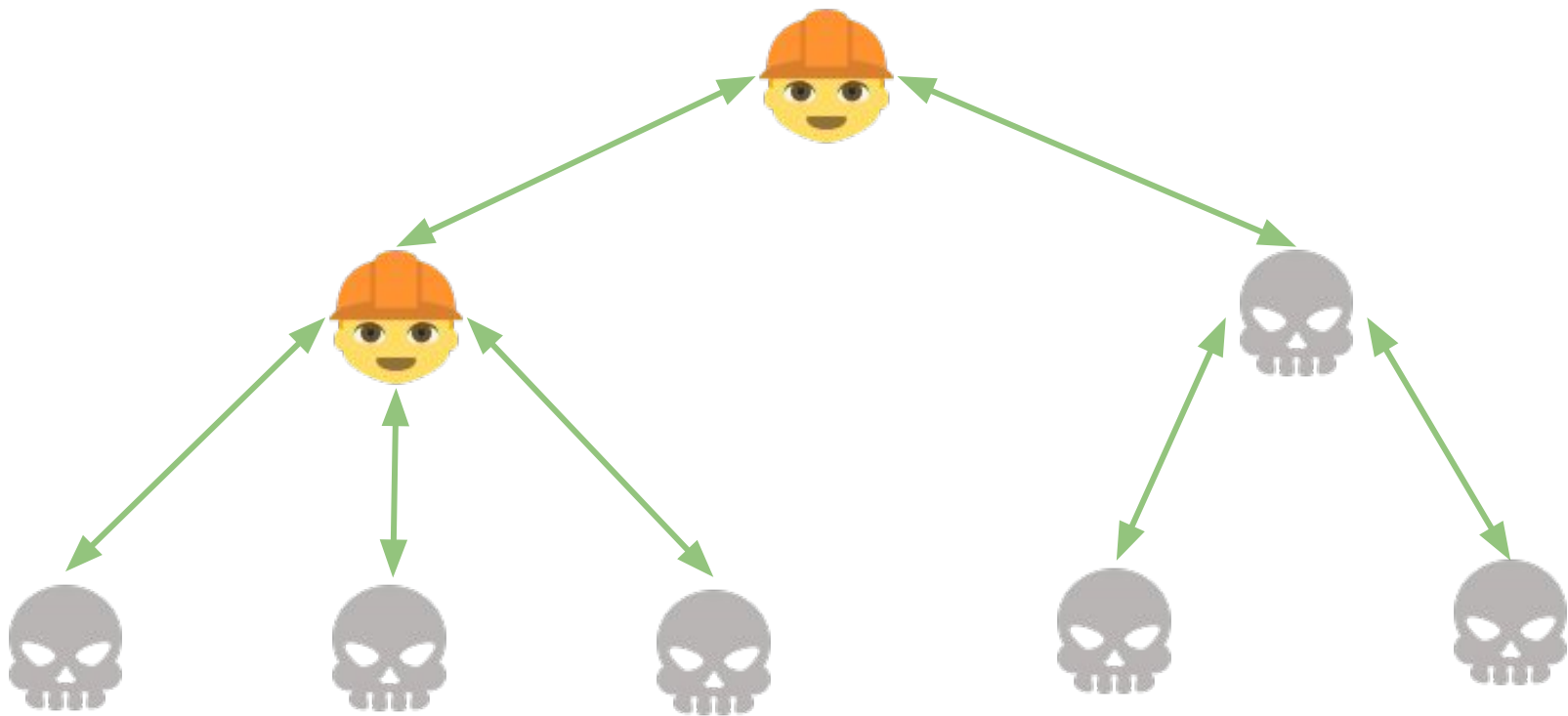
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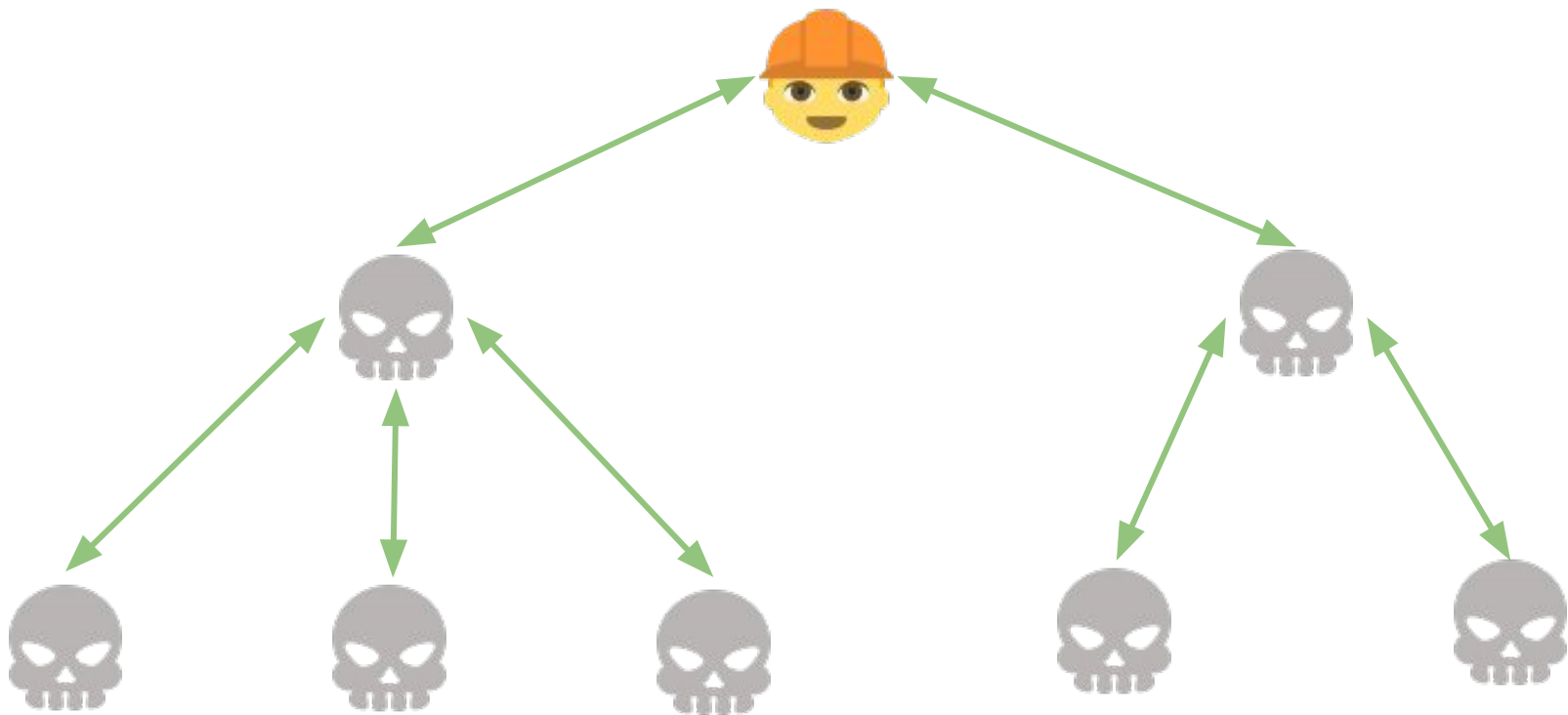
# Supervision tree



# Supervision tree

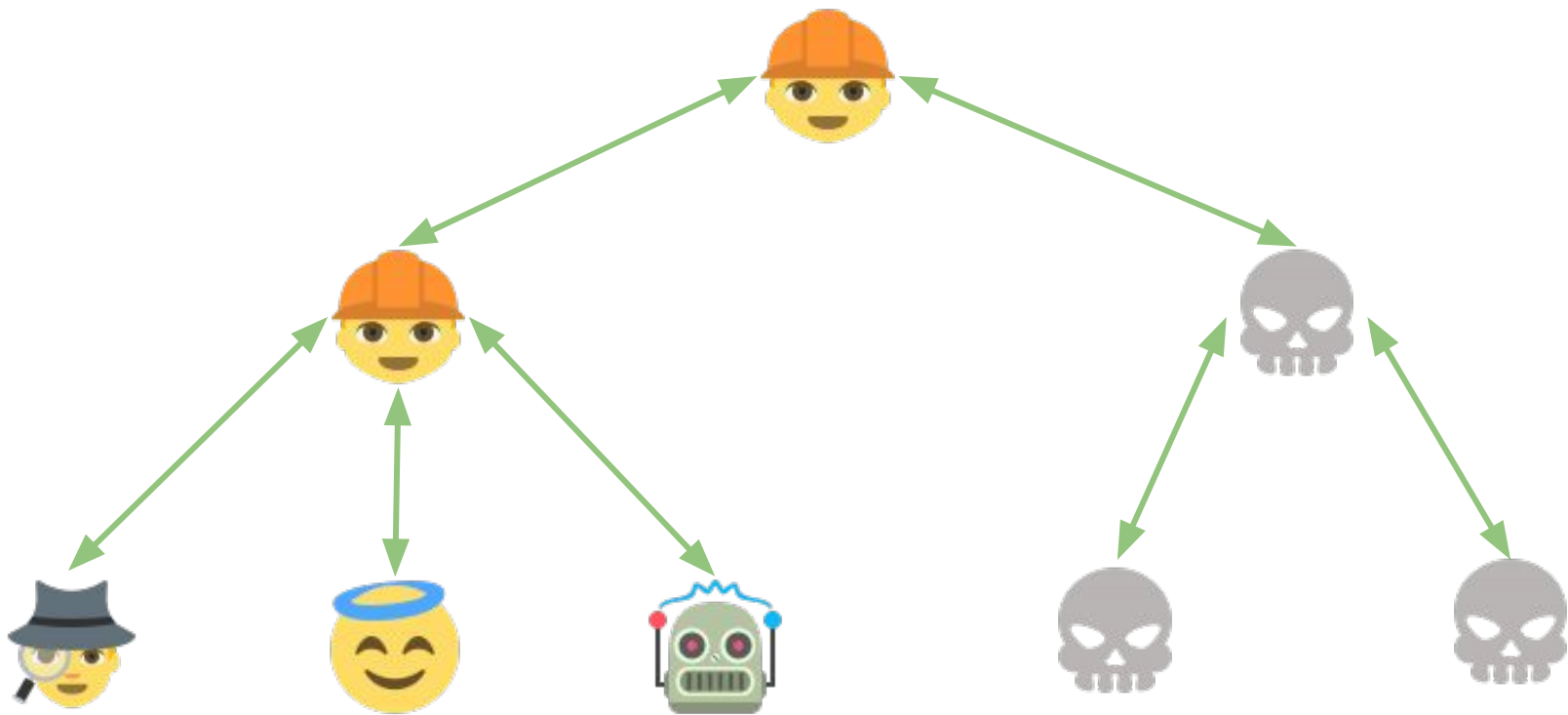


# Supervision tree

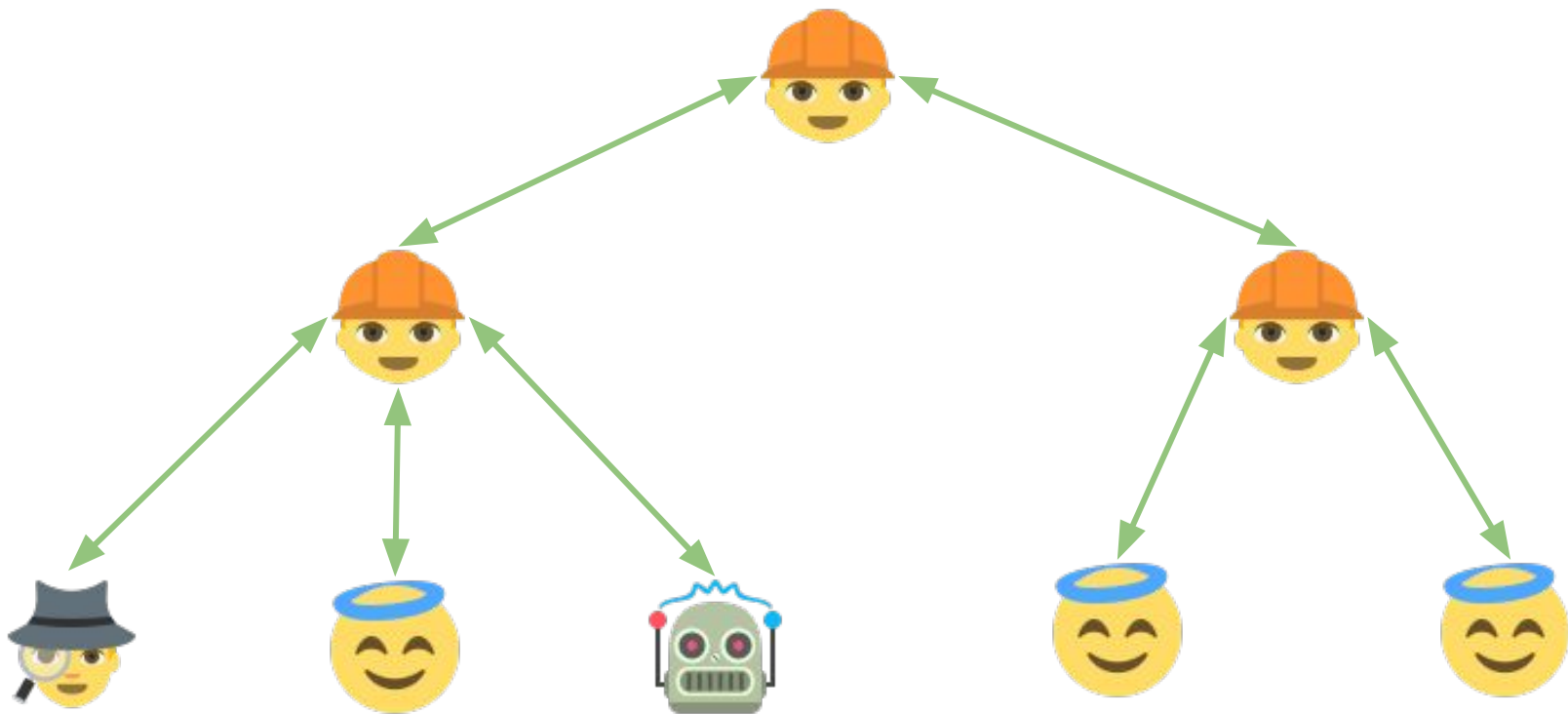




# Supervision tree



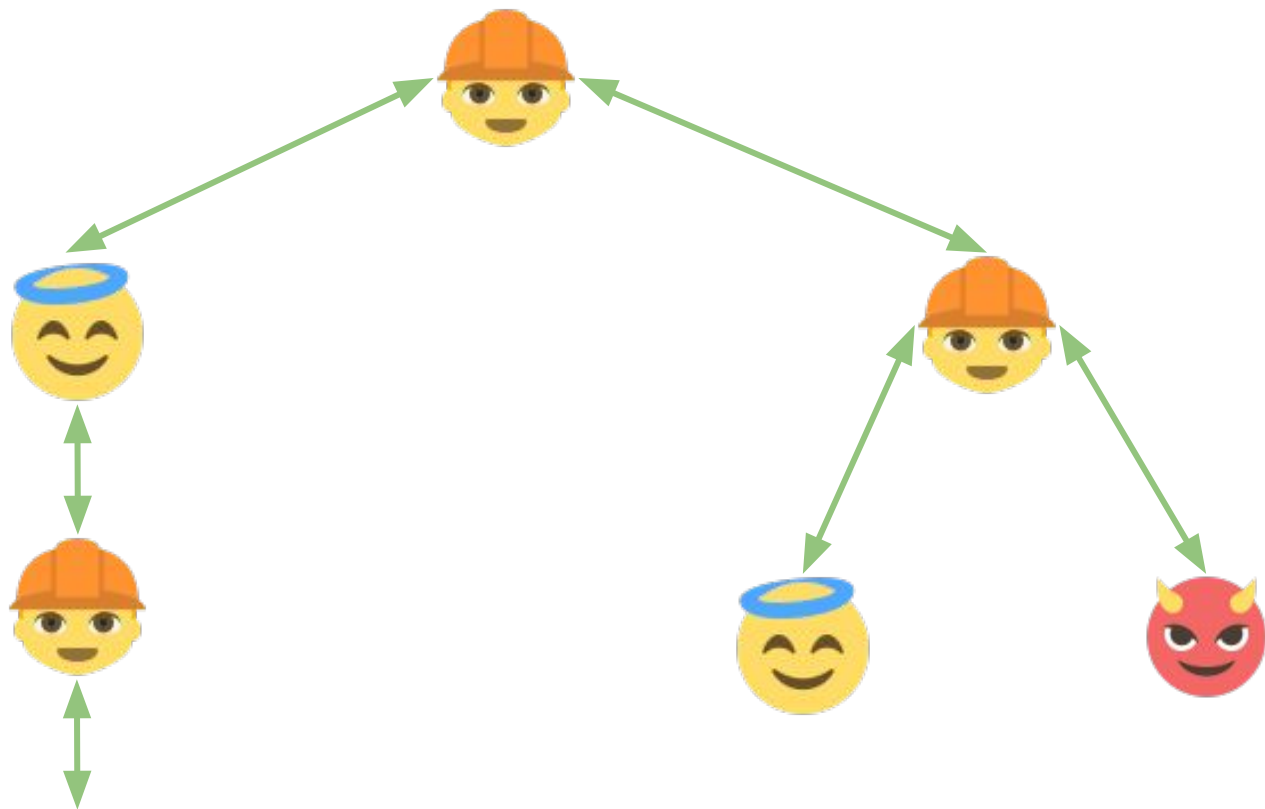
# Supervision tree



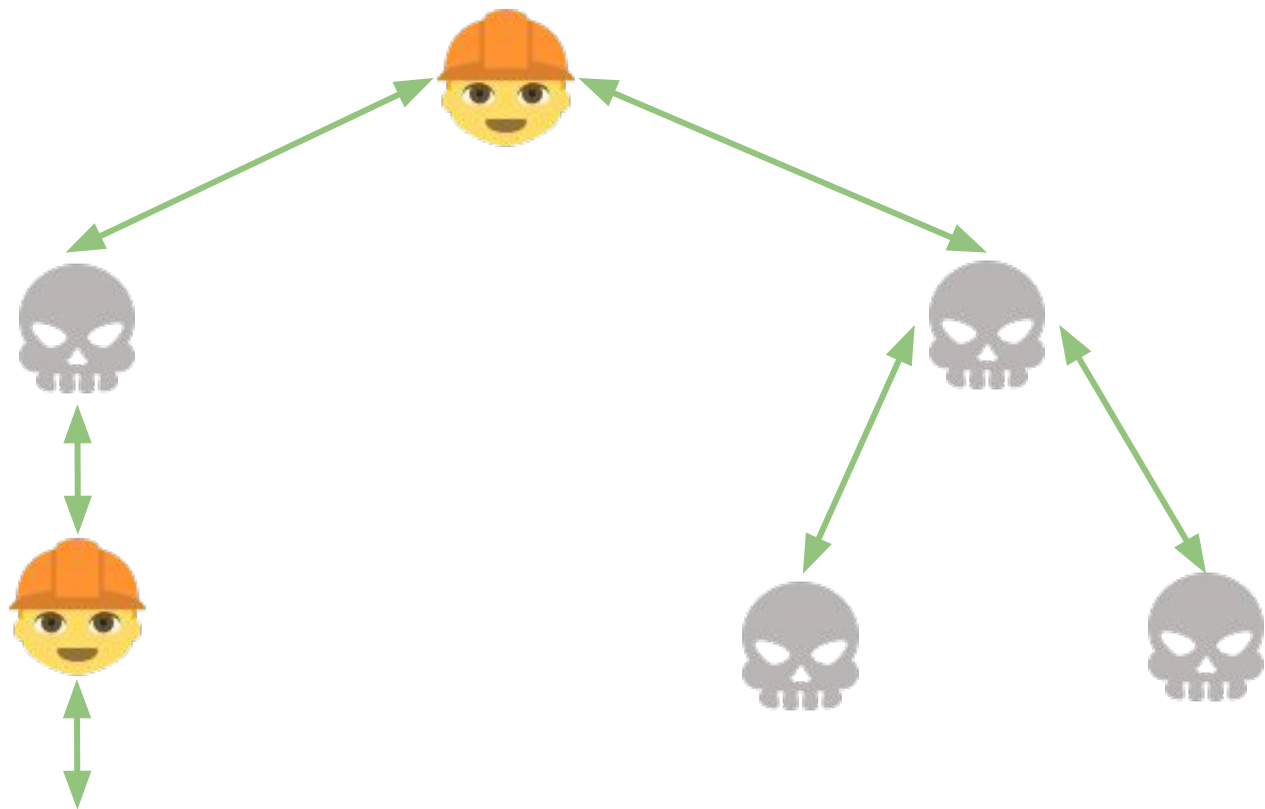
# Guarantees

- When started all descendants have successfully started
- When terminated all descendants have completely terminated
- Descendants started in order
- Descendants terminated in reverse order

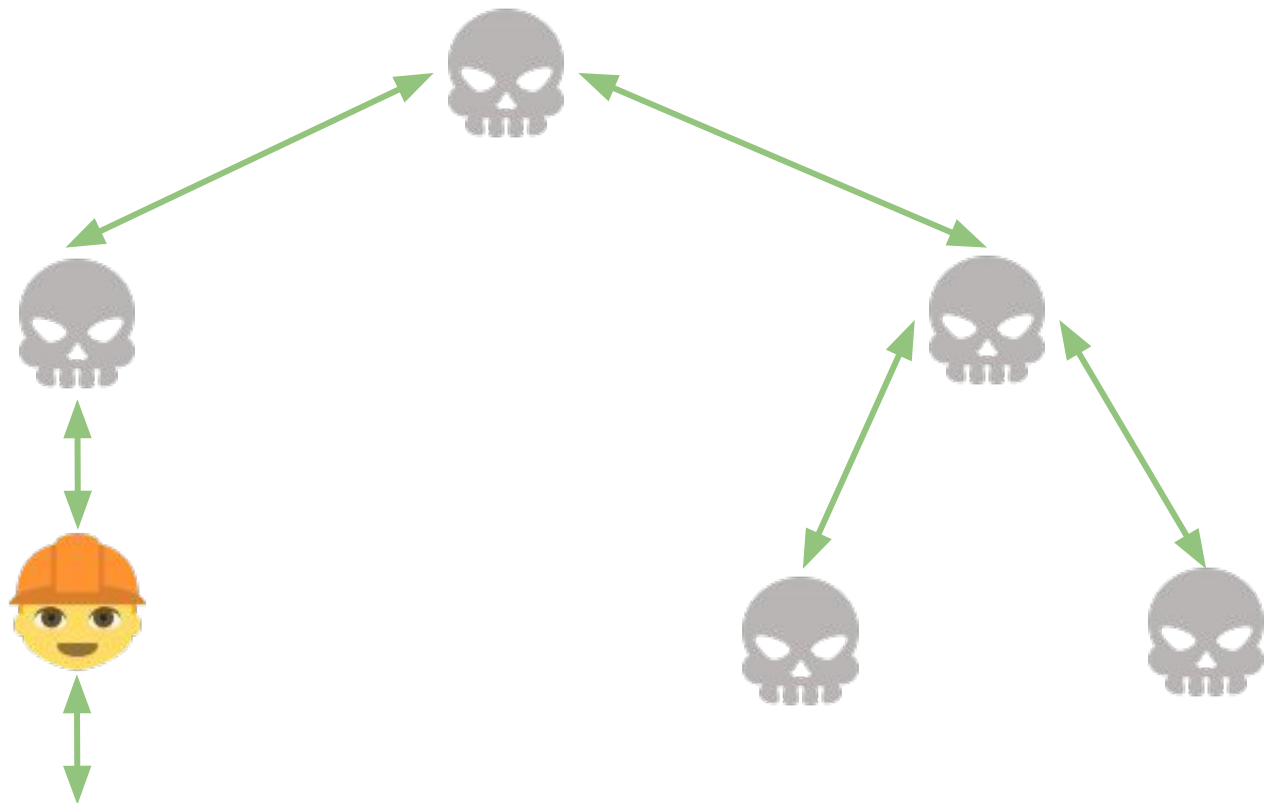
# Supervision tree



# 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`
- `Application.started_applications/0,1`

# Restart

- :temporary
- (:transient)
- :permanent



# Umbrella Applications

- Separation of concerns/functionality
- Isolated from each others faults
- Share configuration and dependencies
- Package subset of applications in different releases/nodes

# Application problems