

Reactive Systems and the Actor model



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What do we want from Reactive Systems?

How does the Actor Model accomplish this?

The Actor model

The Assignment

What do we want from Reactive Systems?



- ▶ Resilience
 - ▶ Isolation and delegation
- ▶ Elasticity
 - ▶ Decentralisation
- ▶ Message Driven
 - ▶ Asynchrony and loose coupling
- ▶ Responsiveness

How does the Actor Model accomplish this?



- ▶ What is an actor?
 - ▶ Encapsulated
 - ▶ Atomic execution
 - ▶ Location Transparency
- ▶ What can actors do?
 - ▶ Create other actors
 - ▶ Send Messages
 - ▶ Change its own behaviour eg. functions and states

- ▶ Concurrency
 - ▶ Initialisation of players
- ▶ Virtual Actors
 - ▶ Activation/Deactivation
 - ▶ Resiliency
 - ▶ Timers vs reminders