

# AWS Simple Workflow Service

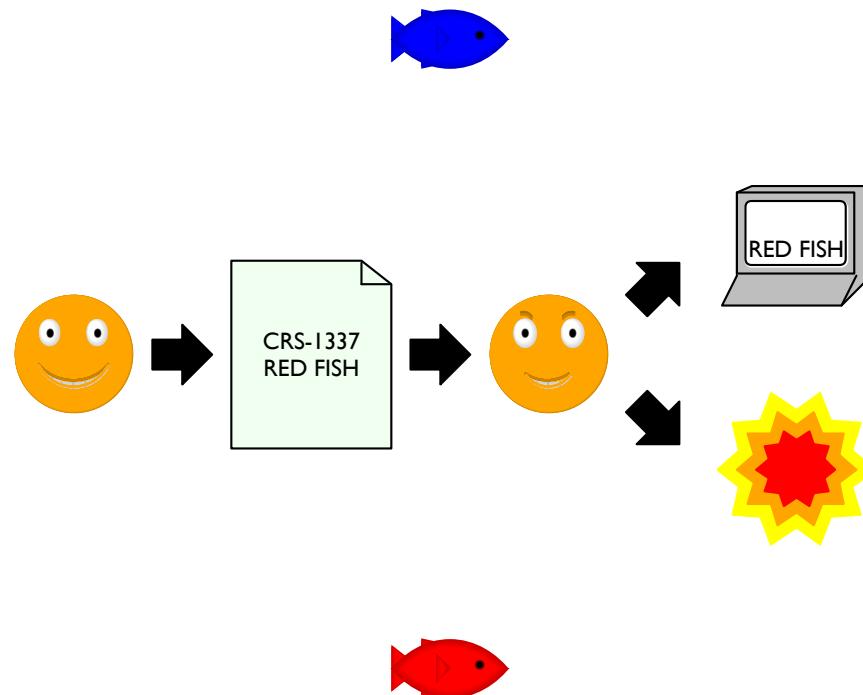
SWF

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# What is SWF?

- A workflow engine!
- A framework for orchestrating a set of related tasks.



How would you write a distributed program to automate this?

# SWF Vocabulary - I

- Domain
  - Namespace for SWF components.
- Decider
  - Stateless.
  - 'Decides' what to do next.
  - Must be deterministic.
  - *Decider Worker* or *Workflow Worker*
- Workflow Execution
  - An instance of a workflow.

# SWF Vocabulary - II

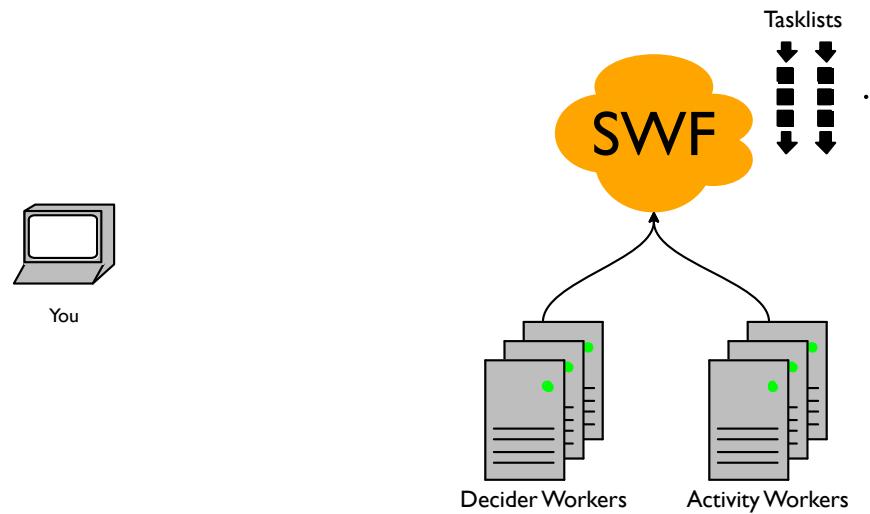
- Activity
  - A task that progresses the workflow.
  - *Activity Worker*
- Tasklist
  - A queue for tasks awaiting execution.

# Outline

- What are the tasks?
  - Obtain approval for request.
  - Apply change. (If approved)

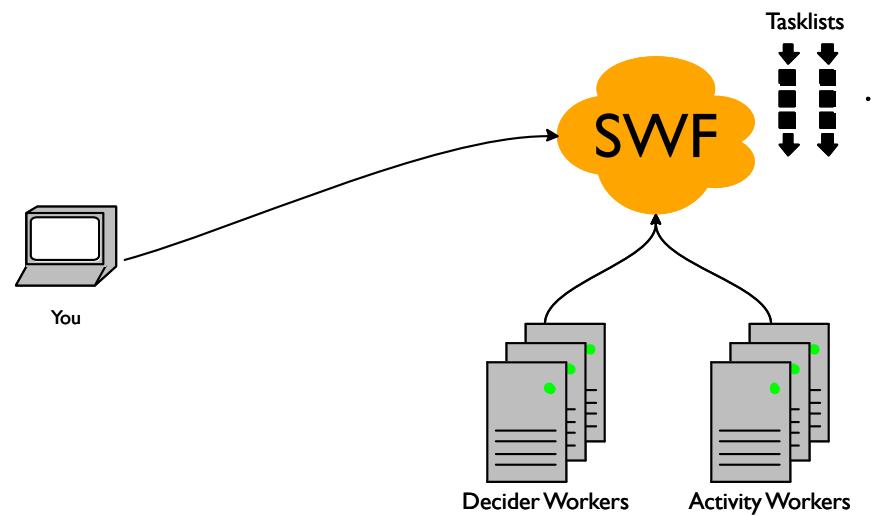
# SWF Model

Example model.



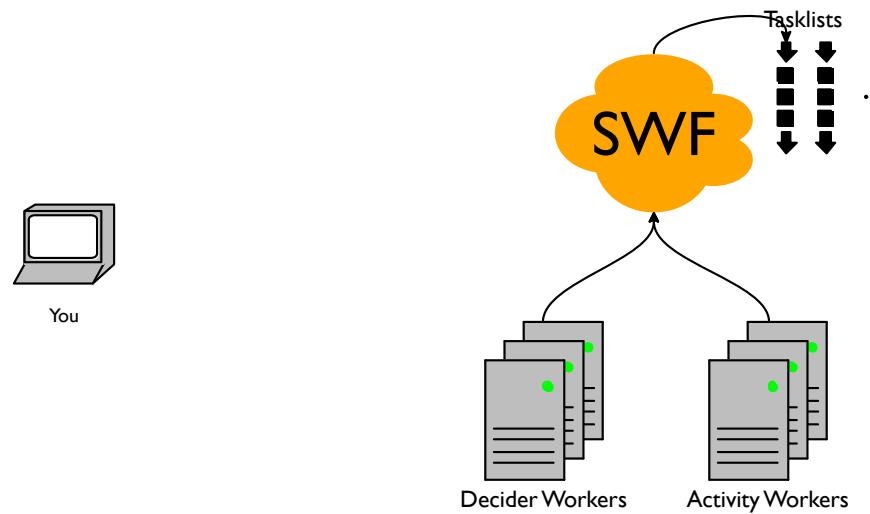
# SWF Model

You initiate a workflow by requesting a color change.



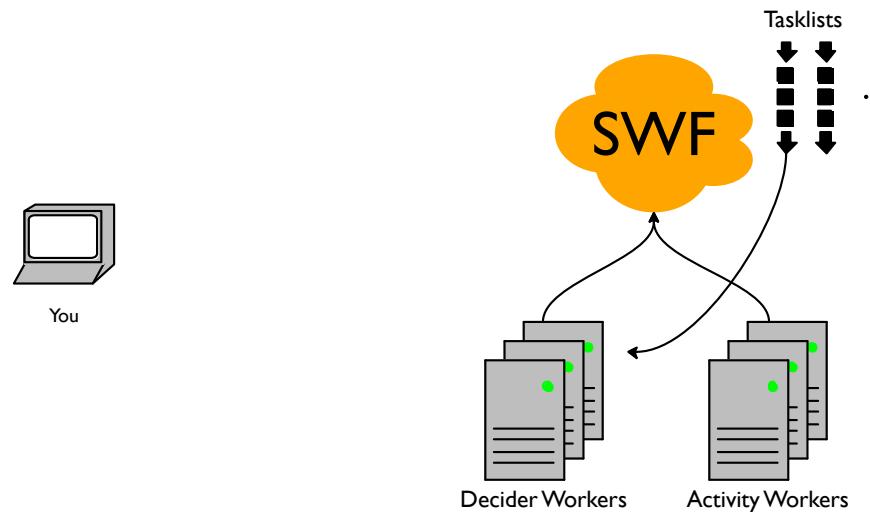
# SWF Model

SWF schedules a decision task.



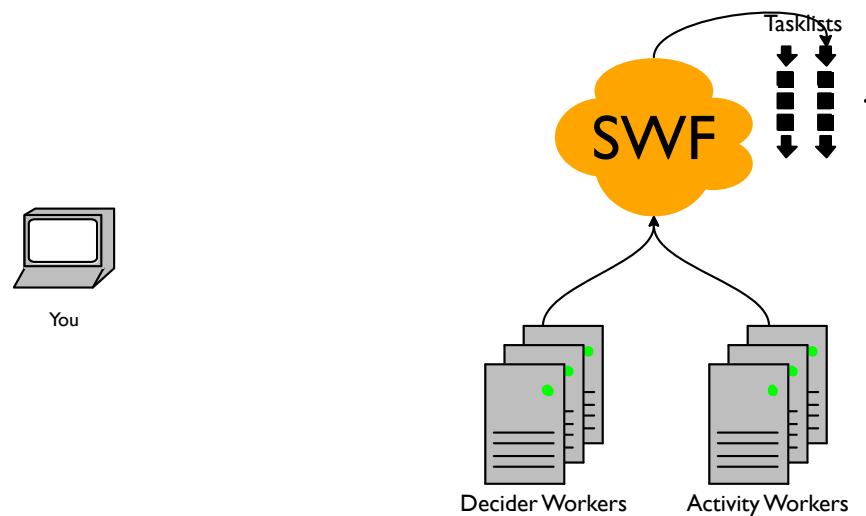
# SWF Model

A decider worker executes the task.



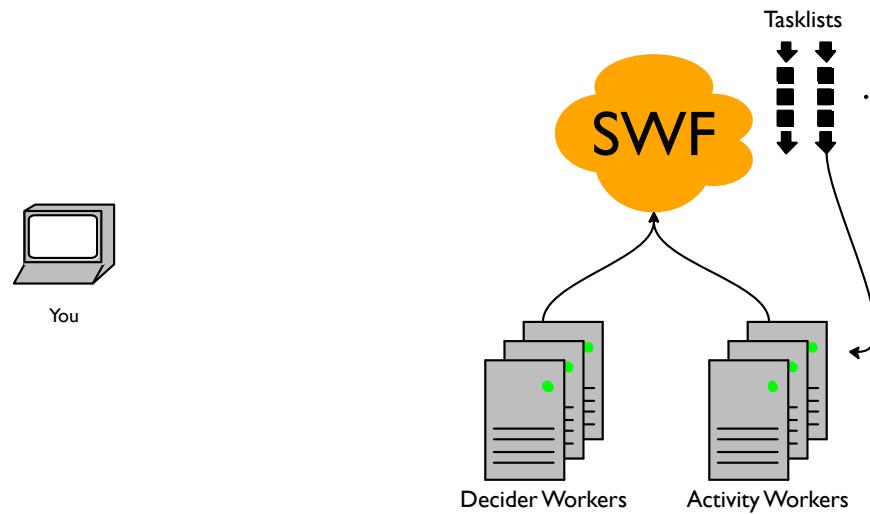
# SWF Model

SWF schedules an activity task.



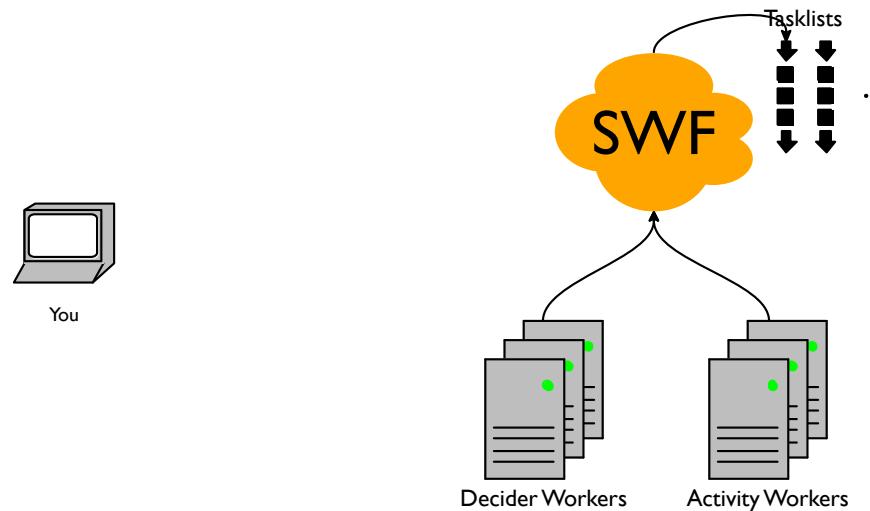
# SWF Model

An activity worker executes the task.



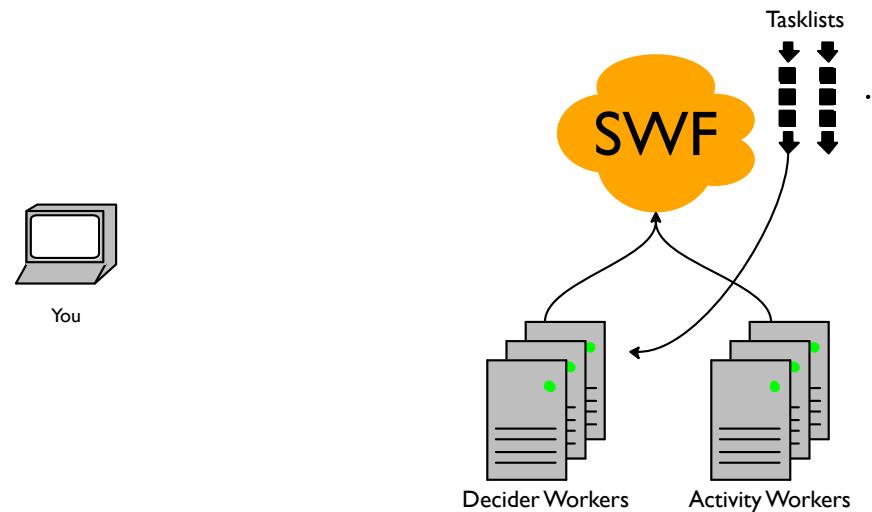
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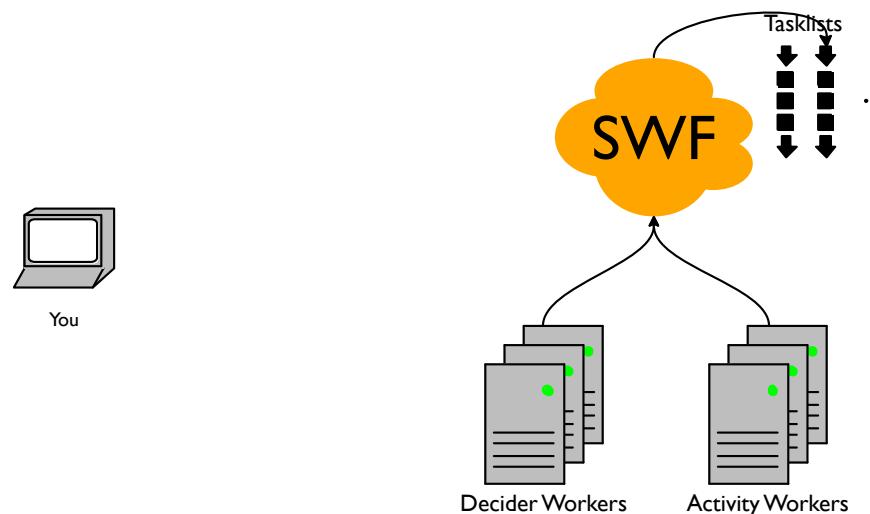
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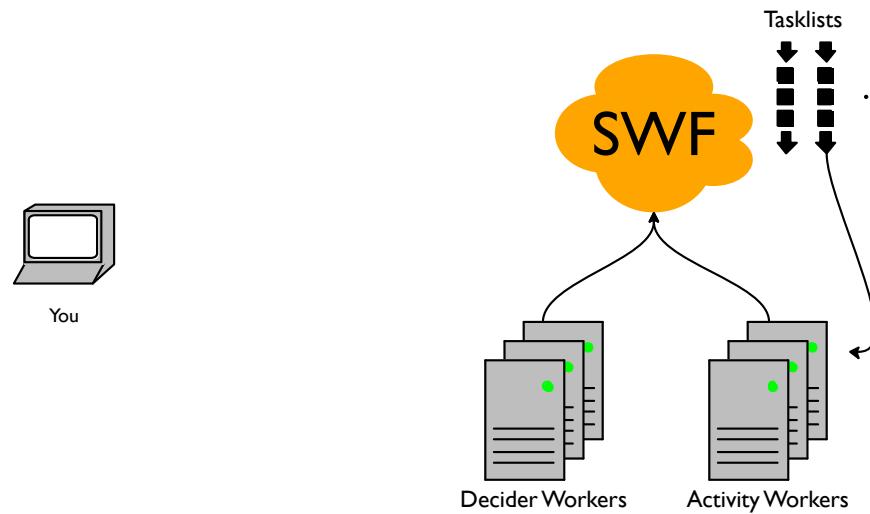
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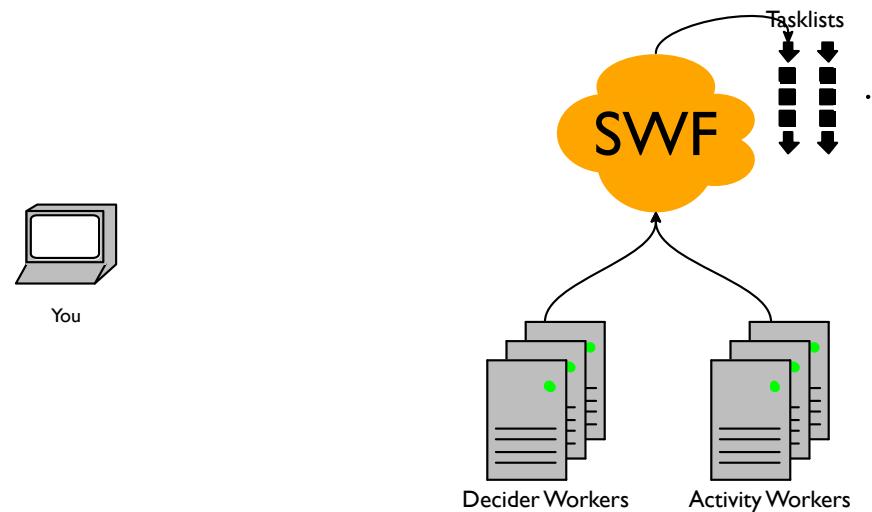
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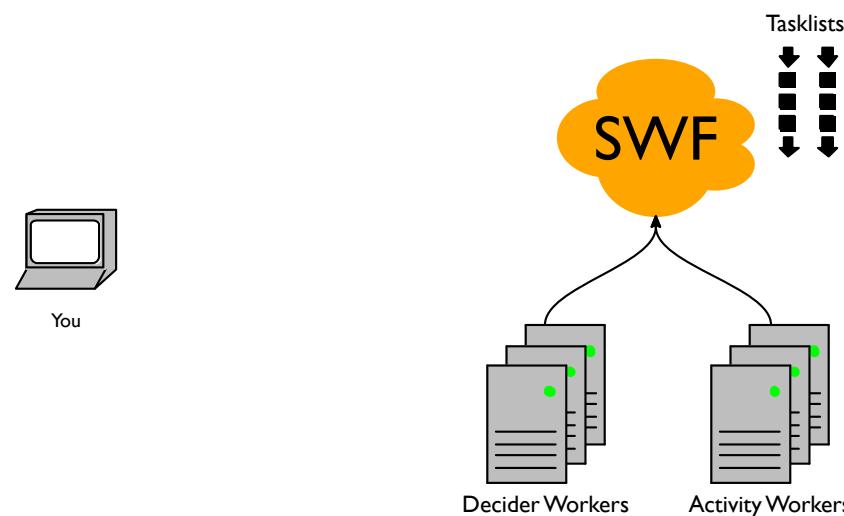
# SWF Model

SWF schedules a decision task.



# SWF Model

There are no more outstanding tasks, so the execution is complete.



# Demo

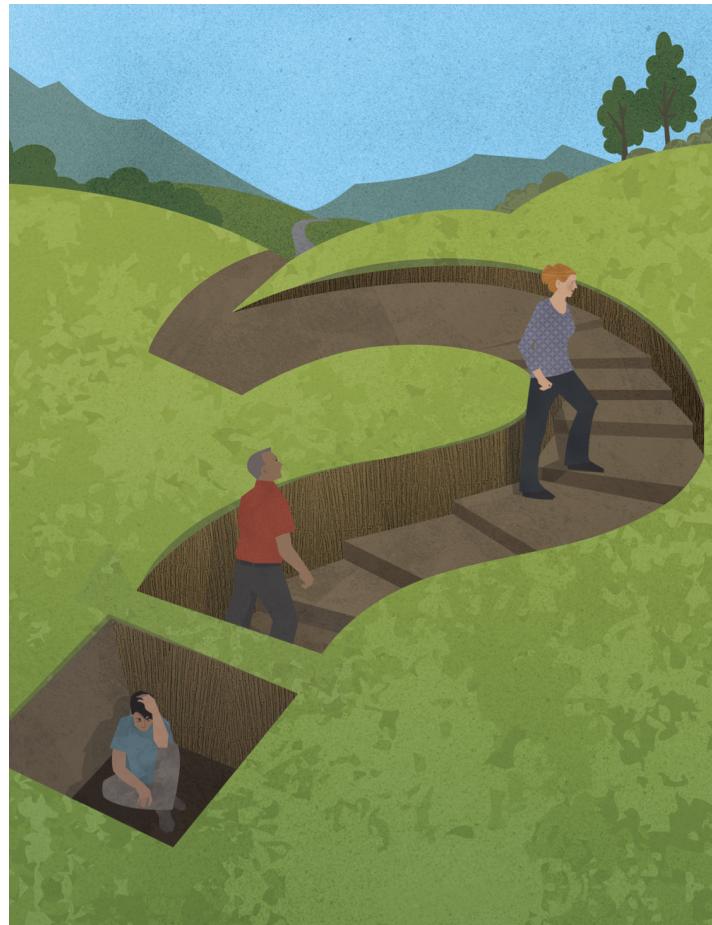


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# Additional Resources

- AWS Documentation
- GitHub: [pedropaulovc/aws-flow-maven-eclipse-samples](https://github.com/pedropaulovc/aws-flow-maven-eclipse-samples)

# Questions?



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