

SWF Basics

- SWF is a fully-managed workflow service provided by AWS.
- It allows a architect/developer to implement distributed, asynchronous applications as a workflow.
- A **workflow** coordinates and manages the execution of activities that can be run asynchronously across multiple computing devices.
- SWF has consistent execution
- Guarantees the order in which tasks are executed
- There are no duplicates tasks.
- The SWF service is primarily an API which an application can integrate it's workflow service into. This allows the service to be used by non-AWS services, such as an on-premise data center
- A workflow execution can last upto 1 year

Components of SWF

- 1) **Workflow** : A sequence of steps required to perform a specific task
 - Workflow is also commonly referred as “**decider**”
- 2) **Activities** : A single step (or unit of work) in the workflow
- 3) **Tasks** : what interacts with the “workers” that are part of a workflow
 - There are 2 types of tasks
 - Activity Task - Tells the worker to perform a function
 - Decision Task - Tells the decider the state of the workflow execution, which allows the decider to determine the next activity to be performed
- 4) **Worker** : Responsible for receiving a task and taking action on it.
 - Can be any type of component such as an EC2 instance, or even a person

Diagrammatic Representation:

