# Application Services

## SWS – Simple Workflow Service

* SWS is a web service that makes it easy to coordinate work across distributed application components. Co-ordinate tasks & workflows.
* Amazon SWF API actions are task-oriented. Amazon SQS API actions are message-oriented.
* With SWF – it is a robust platform for development, message passing between tasks
* Amazon uses SWS to process orders on its website.
* No EC2 components involved.
* It can also involve human actors.
* Task is assigned only once and never duplicated
* Workflow and activity types and its execution are scoped into a domain.
* **Domain** isolates a set of types, executions and task lists wfrom other.
* **Domains** can be registered on AWS Mgmt Console or by RegisterDomain action in the SWF API
* **Workers** are programs that interact with SWF to get tasks, process task and return results
* SWS Actors
  + WF Starters – e-commerce application
  + WF Deciders – Control flow of activity tasks.
  + WF Activity workers – Carry out actual task

Trick Question – when to use SQS or SWS

| **Attribute** | **SQS** | **SWS** |
| --- | --- | --- |
| Retention | 14 days | 1 year |
| API | Message Oriented | Task Oriented |
| Assignment | Might be assigned multiple times | Only once |
| State | Write code to implement tracking | Keeps Track of State & Events |