Core concepts

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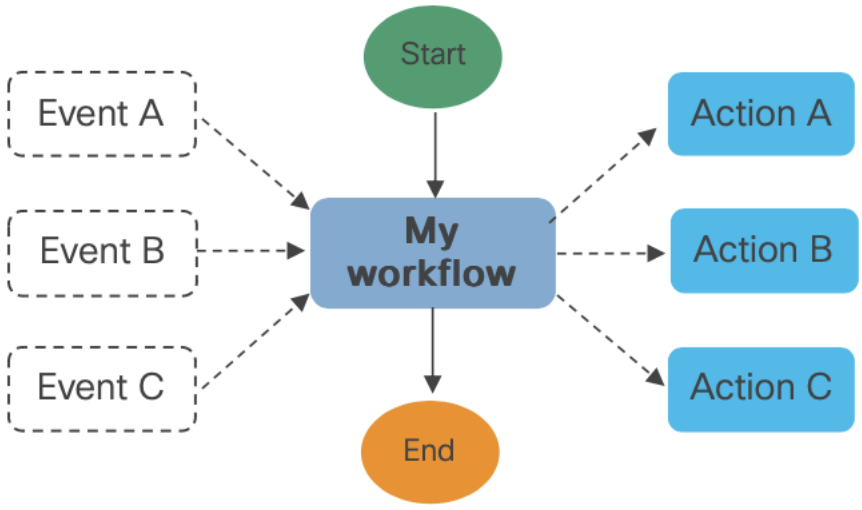
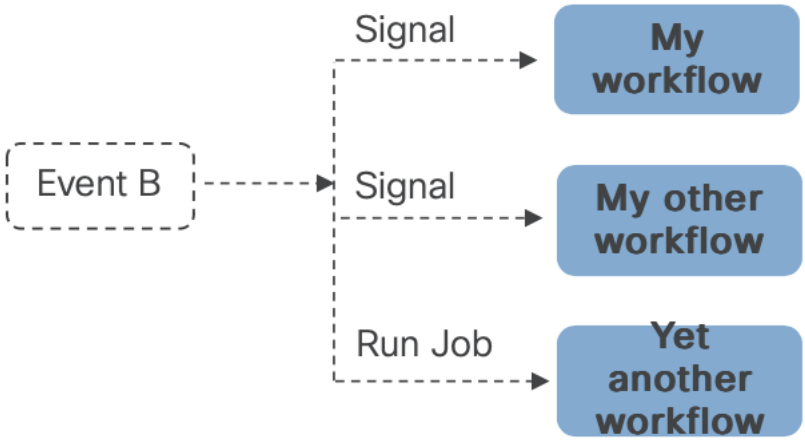
This section defines the main concepts and components used in the Crosswork Workflow Manager (CWM) that help understand how the platform works and its features. You can familiarize yourself with them to ease the very first steps with CWM.

Concept	Description
Activity	An activity is a function that executes a single, well-defined action against the target, outside system (whether it's an app or solution). Activities are defined in adapters and allow communication with an outside system.
Adapter	Adapters are responsible for communication with external services, like other applications, systems or environments. The adapters define and expose activities that are consumed by workflow definitions. Every adapter can be associated with the worker that will execute the adapter activities.
Adapter SDK	The adapter SDK automatically generates the structure for the required adapter's components. Developers can further define activities that are needed and then extend the integrations with the client environment.
CWM UI	The CWM UI is a graphical user interface of CWM that allows users to interact with the system and gives access to its core functionalities.

Concept	Description
Event	Events are signals coming from external sources that workflows run by CWM can interact with. For the CWM 1.1 version, support for interaction with external Kafka, AMQP and HTTP brokers is added. This means that events can be either consumed or produced by an instantiated workflow (a job). A workflow can listen on one or multiple events and consume them to trigger an action/actions:  can also be initiated by an event that comes in to the system: 
Execution engine	CWM has an internal worker called the execution engine. It enables the execution of workflow definition. This worker is not visible in the CWM UI.

Concept	Description
Job	A job represents the single execution of a particular workflow definition. To be able to run a job in Crosswork Workflow Manager, you need first to add your workflow definition to CWM. Running a new job instantiates a workflow definition stored in CWM. Before starting a job run, you enter the initial start data (Input variables). It means that your workflow executions are isolated and may use different data than other executions of the same workflow definition.
Job event	Events are created during workflow execution based on the occurrences defined in the workflow definition. All events that happened during workflow execution are recorded in the Job Event Log table in CWM UI.
Schedule	Scheduling a job allows you to define when a workflow execution should start at the predefined date and time in the future, once or on a recurring basis. You can create a scheduled job via CWM UI or API, but currently some of the schedule functionalities, like editing or pausing/unpausing the schedule are available only via API. Each scheduled job is a separate entity and has a unique Run ID, although all scheduled runs in a given schedule share the same Schedule ID.
Workflow	Workflows help you capture, organize and automate processes with repeatable actions performed in a specified order. In the context of CWM, documentation differentiates between:workflow definition: piece of code written in JSON or YAML, based on the Serverless Workflow Specification and vendor-neutral, domain-specific language.workflow execution (job): single execution of a workflow definition.
Workflow engine	The workflow engine manages the way how your workflow definitions are interpreted and conducted. It receives events, schedules tasks, and manages the execution of workflows.
Worker	Workers carry out the workforce and are responsible for executing the workflow definition code, relevant adapter code and activities defined in the workflow definition. Depending on your needs and scale, you can have multiple workers for every workflow definition. Your worker can be associated with one adapter and its activities or with multiple ones.

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