package com.twitter.product\_mixer.core.pipeline.step

import com.twitter.product\_mixer.core.service.Executor

import com.twitter.product\_mixer.core.service.ExecutorResult

import com.twitter.stitch.Arrow

/\*\*

\* A Step within a Pipeline, a Step is a unitary phase within an entire chain that makes up a pipeline.

\* @tparam State The request domain model.

\* @tparam ExecutorConfig The configs that should be passed into the executor at build time.

\* @tparam ExecutorInput The input type that an executor takes at request time.

\* @tparam ExResult The result that a step's executor will return.

\* @tparam OutputState The final/updated state a step would output, this is typically taking the ExResult

\* and mutating/transforming the State.

\*/

trait Step[State, -Config, ExecutorInput, ExResult <: ExecutorResult] {

/\*\*

\* Adapt the state into the expected input for the Step's Arrow.

\*

\* @param state State object passed into the Step.

\* @param config The config object used to build the executor arrow or input.

\* @return ExecutorInput that is used in the arrow of the underlying executor.

\*/

def adaptInput(state: State, config: Config): ExecutorInput

/\*\*

\* The actual arrow to be executed for the step, taking in the adapted input from [[adaptInput]]

\* and returning the expected result.

\* @param config Runtime configurations to configure the arrow with.

\* @param context Context of Executor.

\*/

def arrow(

config: Config,

context: Executor.Context

): Arrow[ExecutorInput, ExResult]

/\*\*

\* Whether the step is considered a noop/empty based off of input being passed in. Empty

\* steps are skipped when being executed.

\*/

def isEmpty(config: Config): Boolean

/\*\*

\* Update the passed in state based off of the result from [[arrow]]

\* @param state State object passed into the Step.

\* @param executorResult Executor result returned from [[arrow]]

\* @param config The config object used to build the executor arrow or input.

\* @return Updated state object passed.

\*/

def updateState(state: State, executorResult: ExResult, config: Config): State

}