

# Implementing retry in ADF activities

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## Contents

- [Issue](#)
- [Cause](#)
- [Resolution](#)

## Issue

Customer's activity failed due to a system error due to which retry which Customer has set (or internal ADF retry) has kicked in and the same activity started again, which sometimes result in multiple executions of same activity, leading to undesirable effect

Eg: Customer's web activity is kicking off a logic app workflow, and logic app is updating a SQL DB, now the web activity after kicking off logic app workflow failed with a system error due to which the internal retry kicked in, which made the web activity rerun and hence the logic app too, which updated the SQL DB again, which is something which customer does not want.

## Cause

Retries are inevitable in the service world and automatic retries will kick in when a partner service (which ADF is relying upon) is not available and the original request fails, this triggers an automatic retry from ADF to maintain the reliability of ADF service.

## Resolution

Customers should design their pipelines in such a way that its always idempotent, which means that no matter how many times the activities are run it produces the same result. If the activity ran multiple times due to the retry set by the Customer, Customer need to design their pipeline in such a way that only they retry only on failed activities with desired failures and not on every single failure.