**Lab Exercise 1– Topics and Partitions in Redpanda using rpk**

**Objective**

To understand how to create topics, inspect their configuration, and modify the number of partitions in Redpanda using the rpk command-line tool.

**Steps**

**Pre-Requisite:**

curl -LO https://github.com/redpanda-data/redpanda/releases/latest/download/rpk-linux-amd64.zip &&

mkdir -p ~/.local/bin &&

export PATH="~/.local/bin:$PATH" &&

unzip rpk-linux-amd64.zip -d ~/.local/bin/

rpk cloud login

**1. Create a New Topic**

rpk topic create my-topic --partitions 3 --replicas 3

* --partitions 3 creates the topic with 3 partitions.
* --replicas 3 ensures a single replica (sufficient for local or dev cluster).

**2. List All Topics**

rpk topic list

* Shows all available topics with partition and replica counts.

**3. Describe Topic Configuration**

rpk topic describe my-topic

* Displays detailed information about partitions, leaders, replicas, and configs.

**4. Add More Partitions**

rpk topic add-partitions my-topic --num 5

* Increases the **total** partitions of my-topic to 5.
* If it already had 3 partitions, 2 more will be added.

**5. Verify Partition Change**

rpk topic describe my-topic

* Confirm that the topic now shows **5 partitions**.

**6. Delete a Topic (Cleanup)**

rpk topic delete my-topic

* Removes the topic (useful for cleaning test setups).