**Lab Exercise 2– Creating Topics, Producing/Consuming Messages, and Real-Time Data Flow with rpk**

**Objective**

* Create topics using rpk.
* Produce messages into topics from CLI.
* Consume messages in real-time.
* Understand how Redpanda enables streaming data pipelines.

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

**Step 1: Verify Cluster Connection**

Check if your Redpanda node is running:

rpk cluster info

You should see broker info, version, etc.

**Step 2: Create a Topic**

Create a new topic called demo\_topic with 3 partitions:

rpk topic create demo\_topic -p 3

List topics to verify:

rpk topic list

**Step 3: Produce Messages**

Use the built-in interactive producer:

rpk topic produce demo\_topic

Now type some messages (hit **Enter** after each message). Example:

hello world

event-1

event-2

Press Ctrl+D to exit producer.

**Step 4: Consume Messages**

Open another terminal and run:

rpk topic consume demo\_topic --num 10

This will read the **last 10 messages**.

Or, to keep listening in real-time as new messages arrive:

rpk topic consume demo\_topic

Now go back to the producer terminal, type new messages, and you’ll see them flow to the consumer instantly.