**Lab Exercise 5– Implementing Spike Arrest Policy in Apigee**

**Objective:**

* Create a simple proxy that uses **Spike Arrest** to limit request rate.
* Configure the rate to allow **only 2 requests per minute**.
* Observe how Apigee enforces rate-limiting.

**Step 1: Create a New API Proxy**

1. Go to **Apigee UI** in Google Cloud Console.
2. Navigate to **Develop > API Proxies**
3. Click **+ CREATE PROXY**

**Fill the form:**

* **Proxy type**: Reverse Proxy
* **Proxy name**: spike-arrest-demo
* **Base path**: /spike-arrest-demo
* **Target URL**: https://mocktarget.apigee.net
* Click **Next**, then **Create**

**Step 2: Add the Spike Arrest Policy**

1. After creating, open the proxy from the list.
2. Go to the **Develop** tab.
3. Expand: **Proxy Endpoints > default > PreFlow > Request**
4. Click **+ Step**, then choose **Spike Arrest**
5. Name the policy Spike-Arrest-Limit

**Paste the following policy XML:**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<SpikeArrest continueOnError="false" enabled="true" name="Spike-Arrest-1">

<DisplayName>Spike Arrest-1</DisplayName>

<Properties/>

<Identifier ref="request.header.some-header-name"/>

<MessageWeight ref="request.header.weight"/>

<Rate>2pm</Rate>

</SpikeArrest>

This will allow **2 requests per minute** per message processor.

**Step 3: Deploy the API Proxy**

1. Go to the **Deployments** tab
2. Click **Deploy**
3. Choose environment (e.g., eval) and click **Deploy**

**Step 4: Test the API**

Use curl or Postman to make multiple quick requests:

curl https://YOUR-ENV-GROUP.apigee.net/spike-arrest-demo

Send 5–10 requests quickly (within a minute).

**Expected output:**

* The first 2 requests will succeed with 200 OK
* The rest will fail with 429 Too Many Requests

Example error response:

{

"fault": {

"faultstring": "Spike arrest violation. Allowed rate: 2pm",

"detail": {

"errorcode": "policies.ratelimit.SpikeArrestViolation"

}

}

}

**Step 5: Customize the Error Message (Optional)**

You can add a FaultRule in the ProxyEndpoint to return a cleaner message:

<FaultRules>

<FaultRule name="SpikeArrestFault">

<Condition>(fault.name = "SpikeArrestViolation")</Condition>

<Response>

<Set>

<Payload contentType="application/json">

{

"error": "Rate limit exceeded. Try again later."

}

</Payload>

<StatusCode>429</StatusCode>

<ReasonPhrase>Too Many Requests</ReasonPhrase>

</Set>

</Response>

</FaultRule>

</FaultRules>

**Step 6: Clean Up (Optional)**

To remove the proxy:

1. Go to **Develop > API Proxies**
2. Click on spike-arrest-demo
3. Choose **Delete**