**Kubernetes issues/errors:**

**1. Configuration Errors (Kubernetes Resource Limits)**

Error: OOMKilled

Description: Occurs when a pod exceeds its memory allocation, and the system kills it due to insufficient memory.

Error Code: Exit Code 137

**2. Network Misconfigurations (AWS Security Groups/VPC)**

Error: Connection Refused or Connection Timed Out

Description: This happens when inbound or outbound traffic is blocked due to misconfigured security groups or VPC peering.

Error Code: Depends on the application, but typical in network logs or connection attempts

Eg: curl: (7) Failed to connect to <service\_endpoint> port 443: Connection refused

**3. Resource Exhaustion (Kubernetes Nodes/Pods)**

Error: Evicted

Description: Pods are evicted when a node runs out of memory or disk space, or if other resource constraints are met.

Error Code: Exit Code 137 or 255

Eg: Evicted, Message: The node was low on resource: ephemeral-storage. Container is terminated. Exit code: 137

**4. Storage-Related Issues (Disk Space Exhaustion)**

Error: No Space Left on Device

Description: Occurs when a disk becomes full, preventing new data from being written.

Error Code: ENOSPC

**5. Certificate Expiry (SSL/TLS)**

Error: SSL: CERTIFICATE\_VERIFY\_FAILED

Description: Occurs when an SSL certificate has expired or is invalid.

Error Code: SSLError

Eg: SSL certificate problem: certificate has expired

**6. DNS Resolution Failures**

Error: NXDOMAIN

Description: Indicates that the domain name doesn’t exist or isn’t resolvable by DNS servers.

Error Code: NXDOMAIN (Non-Existent Domain)

**7. Permissions and Access Control (IAM/Kubernetes RBAC)**

Error: AccessDenied or 403 Forbidden

Description: Occurs when a user or service tries to access a resource for which it lacks permission.

Error Code: 403 or AccessDenied (AWS), Forbidden (Kubernetes)

Eg: An error occurred (AccessDenied) when calling the PutObject operation: Access Denied.

**8. Version Incompatibility (Kubernetes/Helm)**

Error: Failed to Install Helm Chart

Description: Occurs due to incompatible versions between Helm charts and Kubernetes.

Error Code: Chart.IncompatibleVersion

Eg: Error: Chart version incompatible with Kubernetes version.

**9. API Rate Limiting (AWS/GCP)**

Error: Rate exceeded

Description: Occurs when an API call exceeds the allowed number of requests per second.

Error Code: ThrottlingException (AWS) or 429 Too Many Requests

Eg: An error occurred (ThrottlingException) when calling the DescribeInstances operation: Rate exceeded

**10. Security Vulnerabilities (Container Scanning)**

Error: Vulnerabilities Found

Description: Occurs when scanning container images for known security vulnerabilities using tools like Clair or Aqua Security.

Error Code: CVE-<ID>

Eg: CVE-2021-3456 HIGH Vulnerability found in glibc