EKSBasic Cluster Setup Task – Minimal Cluster + Test Pod (Part 1)

Your task is to provision a **minimal EKS cluster** and run a **simple HTTP Pod (nginx)** to confirm that the scheduler works correctly and basic cluster networking is functional. This exercise simulates the very first step in a real-world DevOps project: from cluster creation to validating that workloads can be safely deployed.

The task should include next stages:

1. **Provision a EKS cluster** - Create a minimal working cluster in a chosen region (e.g., eu-central-1)

2. **Configure access to the cluster** - Set up your local kubeconfig context so that you can run administrative commands against the new cluster, then verify that the cluster is reachable

3. **Create a simple HTTP test Pod** - Run a lightweight HTTP container (e.g., nginx) as a single Pod with declared ports.

4. **Validate the setup end-to-end** - Confirm that the Pod reaches the *Running* state, establish an HTTP connection (e.g., via local port-forwarding or from another Pod in the cluster), and verify that the server responds correctly.

5. **Clean up** - Delete the test resources (Pod/Service), then delete the cluster to avoid unnecessary cloud costs.

Best practises and tips

- **Start small –** A minimal configuration (1 node is enough for validation). Always clean up resources after the exercise.

The above are required to complete the task, but if you have the time and motivation, you can add more functionality and best practices to your EKS ☺

Good luck!