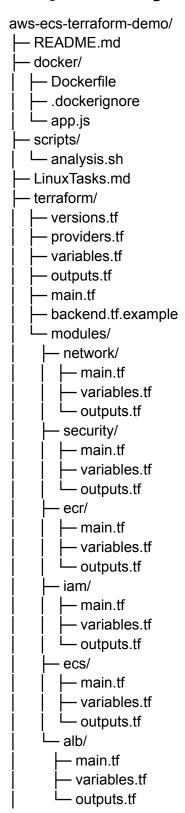
Containerised Node.js App with Terraform-Driven Infrastructure

This repository demonstrates a complete workflow for running a Node.js application inside Docker and provisioning infrastructure using Terraform.

Features:

- Containerised Node.js app
- ❖ Infrastructure provisioning via Terraform
- Automated workflows using Bash scripts
- Easy local development with **Docker**

Repository structure (tree):



Prerequisites:

☐ Node.js (if running locally without Docker)
□ Docker
□ Terraform
☐ Bash shell (Linux/Mac/WSL)

Running the Node.js App with Docker:

Run Locally:

- → cd app
- → npm install
- → node index.js

Docker Setup:

- → Build the Docker image docker build -t nodejs-app .
- → Run the container docker run -d -p 3000:3000 nodejs-app
- → Open in browser http://localhost:3000

Provisioning Infrastructure with Terraform:

- → Navigate to the Terraform directory: cd tf-code
- → Initialize Terraform: terraform init
- → Review the execution plan: terraform plan
- → Apply infrastructure: terraform apply

Bash Automation:

```
./scripts/analysis.sh # Default threshold 80%
./scripts/analysis.sh 90 # Custom threshold (90%)
```

Example output:

=== Disk Usage Re	eport (thres	hold 80°	%) ===	
Filesystem	Type	Size	Use%	Mount
/dev/sda1	ext4	50G	82 /	< HIGH

Future Improvements:

- ☐ Add CI/CD pipeline (GitHub Actions / GitLab CI)
- ☐ Integrate monitoring/logging (Prometheus & Grafana)

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