

Monitoring & Alerting Checklist

Terraform AWS EC2 Module - README

This Terraform module provisions a robust AWS EC2 instance setup, featuring advanced configuration options including VPC settings, key pair integration, IAM role assignment, user data scripts, and comprehensive tagging capabilities. It aims to simplify and standardise EC2 deployments across various environments, ensuring scalability, security, and maintainability.

Features

- Deploy EC2 instances with custom AMIs and instance types
- Optional key pair and IAM role attachment
- EBS volume configuration
- User data support
- Tagging for environment and ownership
- Enable CloudWatch monitoring

Usage

```
module "ec2" {  
  source      = "./modules/ec2"  
  instance_name = "my-app-server"  
  instance_type = "t3.medium"  
  ami_id      = "ami-0abcdef1234567890"  
  key_name     = "my-key"  
  subnet_id    = "subnet-0123456789abcdefg"  
  security_groups = ["sg-01ab23cd"]  
  volume_size   = 50  
  enable_monitoring = true  
  tags = {  
    Name      = "Application Server"  
    Environment = "production"  
    Owner     = "adesoji"  
    Project    = "Cloud Migration"  
  }  
}
```

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```
}
```

Inputs

See the module documentation table for input variable names, types, descriptions, and whether they are required.

Outputs

Outputs include:

- instance_id
- public_ip
- private_ip
- arn

Requirements

- Terraform \geq 1.3
- AWS Provider \geq 5.0

Best Practices

- Use S3 + DynamoDB for state storage
- Use Git versioning
- Run ``terraform fmt``, ``validate``, and ``plan``
- Integrate with CI/CD pipelines

Example Folder Structure

```
project-root/  
  main.tf  
  variables.tf  
  outputs.tf  
  modules/  
    ec2/
```

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main.tf

variables.tf

outputs.tf

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Troubleshooting

- IAM permission issues may block creation
- Security group misconfigs can block access
- Check your AMI and subnet IDs

Maintainer

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