Terraform: Homework 1

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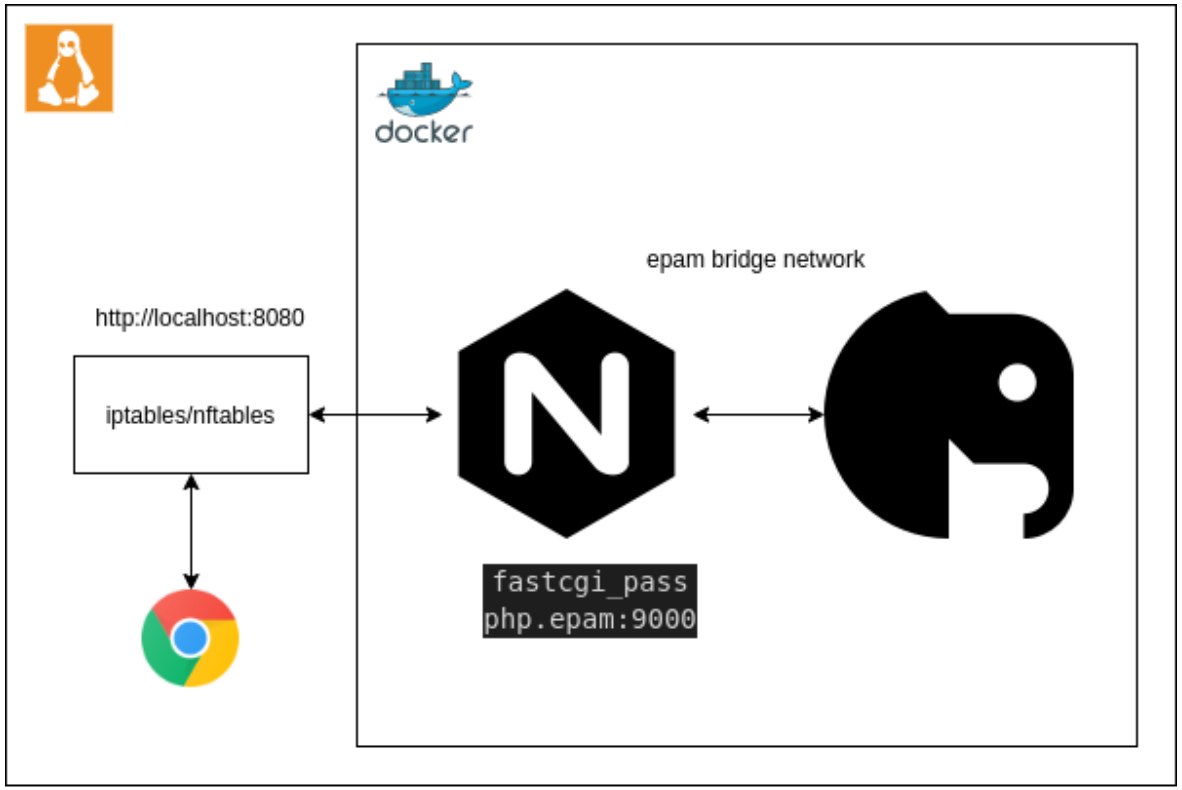
Requirements

- KISS principle(use the minimum amount of resources and arguments and no need to override default values)
- Dont's use modules and non-local backend

Task 1: Docker

Deploy nginx and php containers



Task 1: Docker

- Define three input variables:
  - Colon-separated name and tag for nginx container(default: "nginx:stable")
  - Colon-separated name and tag for php container(default: "php:7.4-fpm")
  - Internal network name(default: "epam")
- Define output variable:
  - URL to phpinfo()

Task 1: Docker

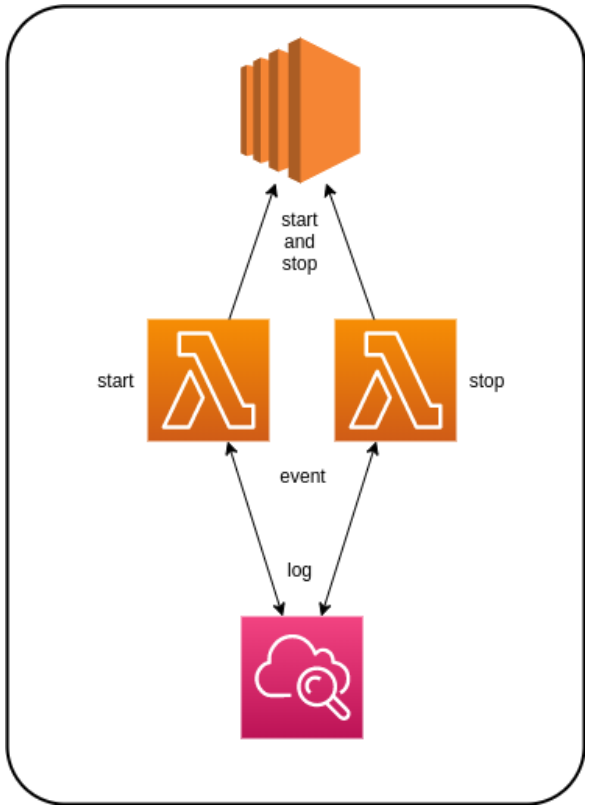
- Define five resources:
  - nginx `docker_image`
  - php `docker_image`
  - `docker_network` for containers
  - nginx `docker_container`
  - php `docker_container`
- Copy `default.conf` inside nginx configuration directory
- Copy `index.php` inside root for PHP

Task 1: Acceptance criteria

- URL in output
- phpinfo() into the URL

Task 2: AWS Lambdas

Deploy nginx and php containers



Task 2: AWS Lambdas

AWS Lambdas:

- Start and stop an EC2 instance if it has `test` tag
- Stop EC2 instances after 10 pm from Monday to Friday
- Start EC2 instances at 7 am from Monday to Friday

Task 2: AWS Lambdas

- Define three input variables:
  - memory size
  - timeout
  - runtime
  - schedule expressions
- Use `archive_file` data source
- Terraform configuration should update lambdas when source code is changed

Task 2: AWS Lambdas

- Define two functions: for start and stop
- Define resources:
  - IAM role and managed policy
  - CloudWatch even rules and targets
  - Permissions for lambdas

Task 2: AWS Lambdas

- Modify input variables to stop in the middle of the hour
- Modify input variables to tart at the beginning of the hour
- Create a test instance with a tag
- Add CloudWatch logs into README.md