

PenguinZoo – operations

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## PHASE 1

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GitHub repositories.

1. Ideally we should have three (3) repos ready for production
  - a. *main*
  - b. *develop*
  - c. **feature/\***
    - *feature/log...*
    - *feature/dashboard....*
    - Etc.

\*c. – feature branches would depend on how many features would be included in the application.

\*another repo can be created for a hotfix such as a fallback for *main* and *develop* branches when worst comes to worst

CI. continuous integration Pipeline

very basic steps for pushing code into GH repo like:

- **Checkout source code**
- **Install dependencies**
- **Run checks (linter & unit)**
- **Etc.**

\*always required to determine early bugs within the system before large integration.

\*code quality should matter but in our case we dont care (this is a project nigga)

### CD - Azure App Service

we can host the PenguinZoo backend API using this MS Azure service.

It has 3 environments slots:

1. *development*
2. *staging*
3. *production*

## PHASE 2

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full CI/CD flow

- a. trigger CI pipelines when:
    - ➔ pull req to *develop* or *main*
    - ➔ code is pushed to *feature* branch
  - b. Azure App Service for CD (staging slot): automatic deployment occurs when code is merged into *develop* branch
    - automatic deployment -> of build artifacts/software outputs
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- c. code merged into *main* branch -> production deployment process such as manual validation/approval of the code
- d. we may opt to use **GitHub Actions** or **Azure DevOps Pipelines** to fully integrate a functional DevOps pipeline into the workflow.

\*staging slot is used for testing while production slot is used by users, once the merged code is approved by any of us, the application can move from the staging slot to the production slot in Azure App Service.

IaC. Infra as a Code

a viable option for repeatable deployments and version-controlled infra. not necessary

### PHASE 3

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#### **Azure Monitor**

Necessary if we are to use App Service to check for availability+performance alerts since both services go hand in hand together. Can also be used for notification connected to our emails once the application goes live

#### **Cost Monitor**

Ako na bahala