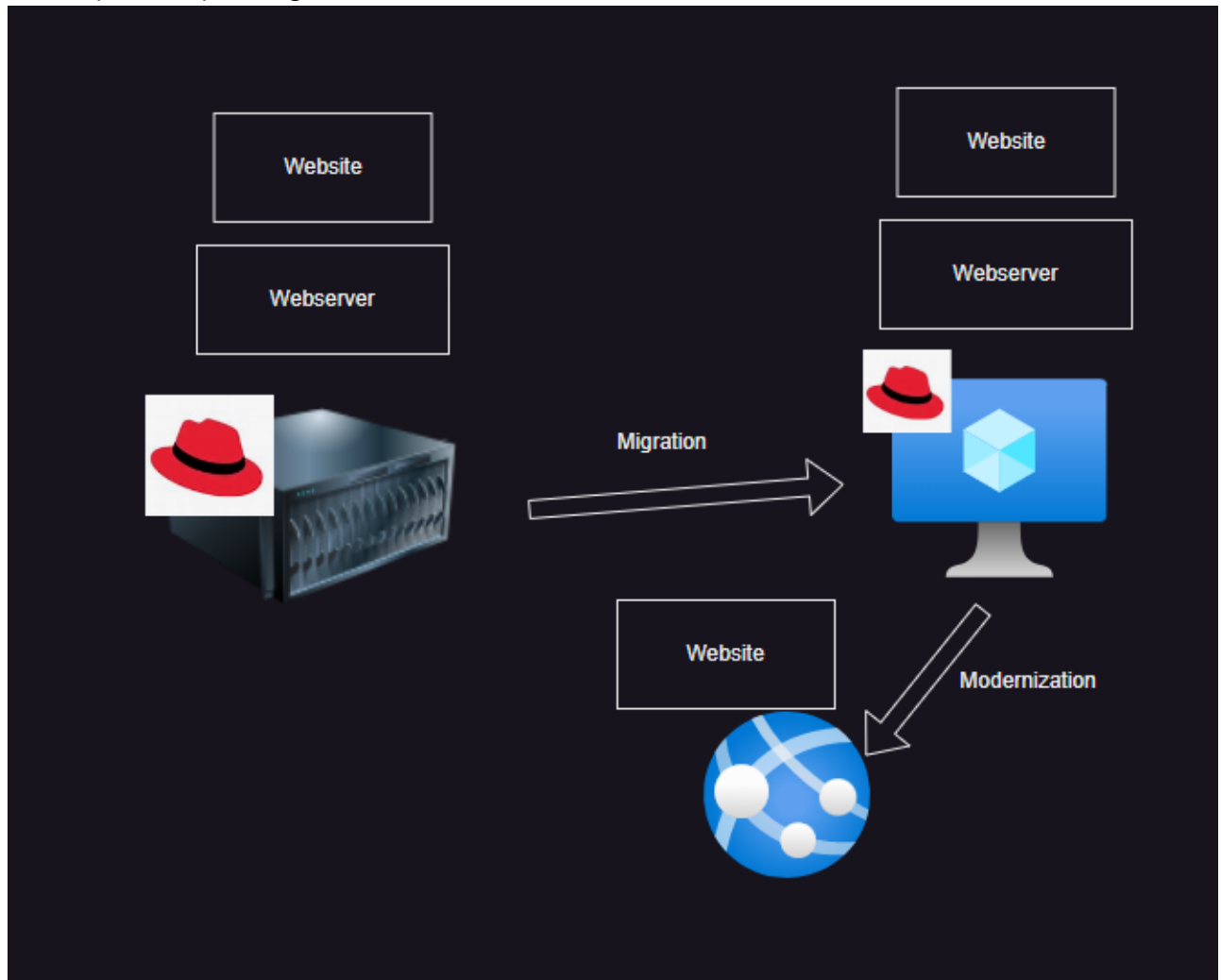# Migration Activities

- Generally any migration can be classified into two strategies
    - One time migration
    - Ongoing Migration
- Migration types according to workloads
    - Server
    - Database
    - Storage
- When it comes to Server Migration, we have two major options
    - P2V (Physical to Virtual)
    - V2V (Virtual to Virtual)
- When it comes to Database Migration
    - Same Engine
    - Transformation (oracle to mysql...)
- When it comes to storage migration
    - One-time:
        - online
        - offline
    - Ongoing:
        - Hardware based
        - software based

Modernization

- This step comes post migration.

- Modernization in Applications

    - PaaS (Platform as a Service)
    - Serverless (Vendor specific)
    - Containerization

- Modernization in Storage

    - Blob Storage
    - Data lakes into Cloud

- Modernization in Databases

    - DBaaS (Database as a service)
    - NoSQL Alternatives

- Technology shifts

    - Mainframe to Microservices Refer Here
    - Monolith to Microservices
    - To Cloud Native.

What is day-0, day-1 and day-2 in terms of migration in organizations.

- The terms "Day 0", "Day 1", and "Day 2" refer to the different stages of the software lifecycle, particularly in the context of cloud migrations and deployments:

Day 0:

- Day 0 represents the planning and design phase of the software/system lifecycle.
- This involves defining requirements, designing the architecture, planning resources, and preparing for the actual deployment.
- Key activities include requirements gathering, solution design, capacity planning, testing, and creating a detailed deployment plan.
- Getting Day 0 right is crucial, as it sets the foundation for the rest of the lifecycle.

Day 1:

- Day 1 is the deployment or "go-live" phase.
- This is when the software or system is actually deployed and made available to users.
- Activities include provisioning infrastructure, installing and configuring software, testing the deployment, and verifying everything is working as expected.
- Successful Day 1 execution depends heavily on the planning and preparation done in Day 0.
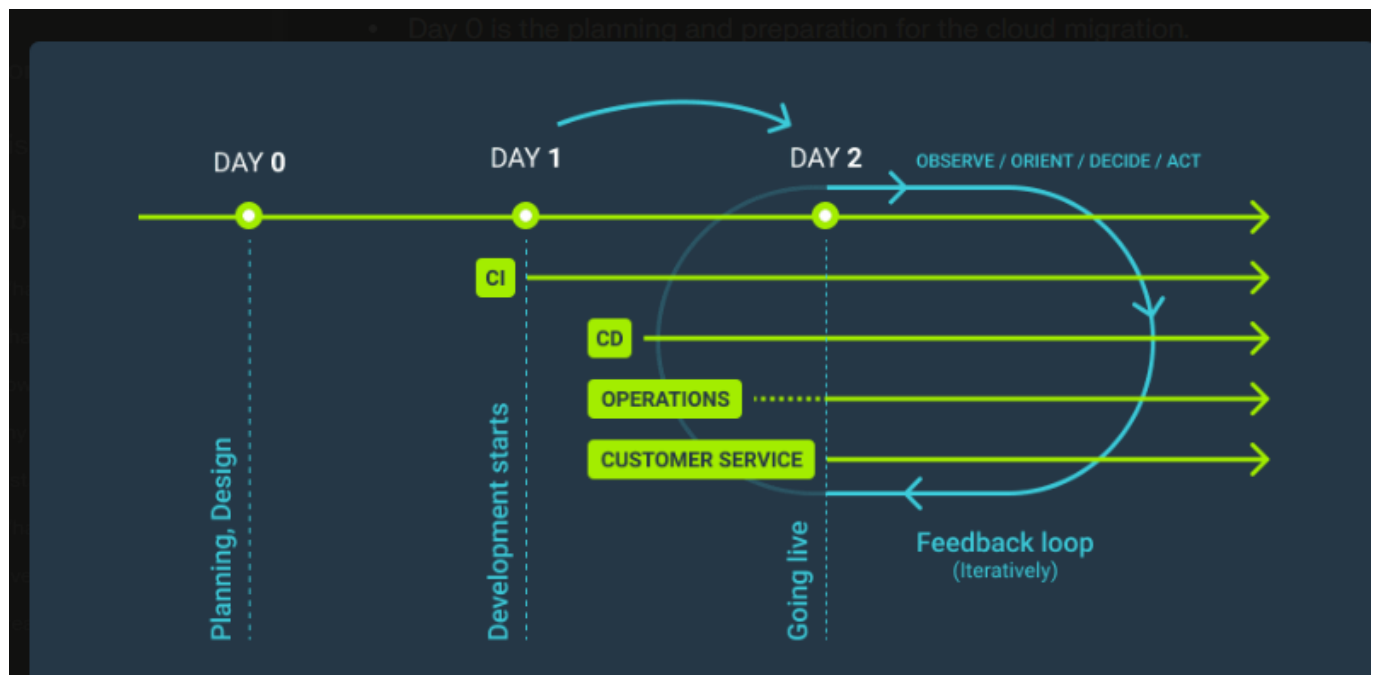
Day 2:

- Day 2 refers to the ongoing operations and maintenance phase.
- This is where the focus shifts to monitoring, optimizing, and troubleshooting the deployed system.
- Key activities include performance monitoring, security updates, backups, scaling, and incident response.
- Day 2 is an ongoing, never-ending phase that ensures the system continues to function reliably and meet business needs.

In the context of cloud migrations, these "days" represent the different stages an organization goes through when moving their applications, data, and infrastructure to the cloud:

- Day 0 is the planning and preparation for the cloud migration.
- Day 1 is the actual migration and deployment of the workloads to the cloud.
- Day 2 is the ongoing management, optimization, and maintenance of the cloud-based systems.

Successful cloud migrations require careful planning and execution across all three stages to ensure a smooth transition and reliable cloud operations going forward. Adhering to best practices for Day 0, Day 1, and Day 2 is crucial for the overall success of the cloud migration project.

- Next Steps:
    - Hybrid Networks
    - Operations Activities