Document 2: Technical Team Roles & Infrastructure Stacks

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1. Developers

Responsibilities:

- Develop and deploy software applications.
- Create and manage APIs and middleware.
- Code reviews and collaboration with infrastructure teams.

Processes:

- Agile development, version control, CI/CD pipelines.
- Unit, integration, and system testing.

Infrastructure Stacks:

- AWS, Azure, GCP, Docker, Kubernetes, and microservices frameworks.

2. Testers / Quality Assurance

Responsibilities:

- Test plan design, manual and automated testing.
- Defect management and performance/security testing.

Processes:

- Integration with CI, automated testing suites, quality gates.

Infrastructure Stacks:

- Virtualized test environments, cloud testing tools, ELK/Splunk monitoring.

3. Infrastructure Engineers

Responsibilities:

- System deployment, network design, capacity planning.
- Maintenance and security of infrastructure.

Processes:

- Infrastructure as Code (Terraform, Ansible), monitoring, maintenance windows.

Infrastructure Stacks:

- On-premise, hybrid infrastructures, network devices, storage solutions.

4. DevOps Engineers

Responsibilities:

- Manage CI/CD pipelines and automation.
- Monitor systems and handle incident responses.

Processes:

- Pipeline management, container orchestration, security audits.

Infrastructure Stacks:

- Cloud CI/CD, container registries, and monitoring/logging tools.

5. Additional Roles

- System Administrators: Daily support and configurations.
- Security Engineers: Oversight of security architecture and threat management.
- Database Administrators: Optimize databases and ensure data integrity.

6. Infrastructure Stacks Overview

Overview:

- Cloud Platforms: AWS, Azure, GCP.
- Containerization: Docker and Kubernetes.
- CI/CD: Jenkins, GitLab CI, CircleCI.
- IaC: Terraform, CloudFormation.
- Monitoring & Logging: Prometheus, Grafana, ELK, Splunk.