Sprint Plan – Group Project: “Mission: (Highly) Available!”

📅 Duration: April 22 – May 20, 2025

👥 Team Size: 5 Members

# Team Roles & Responsibilities

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| Role | Name (To be filled in) | Responsibilities |
| Project Lead & Documentation Owner |  | Coordinates planning, deadlines, and documentation. Maintains reports and leads the final presentation. |
| Infrastructure & CloudFormation Lead |  | Designs and implements modular CloudFormation templates. Manages deployment and IaC version control. |
| Web/Application Developer |  | Develops the front end and optional application logic. Integrates app with RDS and ensures multi-region functionality. |
| Disaster Recovery & DNS Lead |  | Builds DR region infrastructure, sets up RDS read replica and Route 53 failover, and simulates DR scenarios. |
| QA, Testing & Monitoring Engineer |  | Performs integration testing, monitors stack health, and ensures correct failover operation and security configuration. |

## Sprint Plan – Due April 24, 2025

* Define team roles and fill in the above table.
* Write user stories and acceptance criteria.
* Break down tasks into backlog items.
* Create a timeline and assign responsibilities.
* Choose a project management tool (Trello, Jira, Google Docs).
* Set up shared GitHub/GitLab repo.
* Submit the Sprint Plan (PDF or DOCX).

## CloudFormation Template (IaC) – Due April 29, 2025

* Design logical architecture (VPC, EC2, RDS, etc.).
* Create modular CloudFormation templates.
* Test stack deployment and parameterization.
* Comment templates and add to GitHub with README.

## Primary Region Deployment – Due May 6, 2025

* Deploy all stacks using CloudFormation.
* Confirm full connectivity: Web/App ↔ RDS.
* Add sample front-end content and DB entries.
* Capture screenshots or record a short demo.

## DR Region Deployment & Failover – Due May 13, 2025

* Replicate and modify templates for DR region.
* Create cross-region RDS read replica.
* Deploy Web/App tiers in DR region.
* Set up Route 53 with health checks and failover policy.
* Simulate failure and verify auto redirection.
* Document RPO/RTO and capture failover proof (video/screenshots).

## Final Submission & Presentation – Due May 20, 2025

* Clean and organize all CloudFormation templates.
* Finalize README.md and code comments.
* Create architecture diagram (Lucidchart/draw.io).
* Record a 5-minute team presentation or slide deck.
* Write final summary report.
* Submit GitHub repo link, demo media, and final documentation.