# Project Plan: Three-Tier Architecture in AWS

**🧱 Phase 1: Foundation**

| **Step** | **Task** |
| --- | --- |
| 1 | VPC Creation (custom, not default) |
| 2 | Subnets (Public & Private, across 2 AZs) |
| 3 | Internet Gateway (attach to VPC) |
| 4 | Route Tables (public & private, configured correctly) |
| 5 | NAT Gateway (for private subnet internet access) |

**🕸️ Phase 2: Networking & Security**

| **Step** | **Task** |
| --- | --- |
| 6 | Security Groups (Web, App, DB tier rules) |
| 7 | NACLs (basic config, with mention in report) |
| 8 | Key Pair creation (for SSH into EC2) |

**🖥️ Phase 3: Compute Setup**

| **Step** | **Task** |
| --- | --- |
| 9 | EC2 Instances (Web Tier: Public Subnet) |
| 10 | EC2 Instances (App Tier: Private Subnet) |
| 11 | Load Balancers (External ALB for Web, Internal ALB for App) |

**💾 Phase 4: Database Tier**

| **Step** | **Task** |
| --- | --- |
| 12 | Amazon Aurora (or RDS MySQL/Postgres) – private subnet only |
| 13 | Test DB connection from App Tier EC2 |

**🚦 Phase 5: Validation**

| **Step** | **Task** |
| --- | --- |
| 14 | Test flow: Browser → Web → App → DB |
| 15 | Logs, Monitoring, Scaling (optional for bonus points) |
| 16 | Cleanup steps (to avoid billing surprises) |

A screenshot of a computer

AI-generated content may be incorrect.