

The Solution

Parnas Tables (Tabular Notation)

| User Role | Resource Type | Action | Owner? | Result |
|-----------|---------------|--------|--------|---------|
| Admin | * (any, DC) | * | * | ✓ Allow |
| User | Public | Read | * | ✓ Allow |
| User | Shared | Read | * | ✓ Allow |
| User | * | Read | Yes | ✓ Allow |
| User | * | Write | Yes | ✓ Allow |
| User | * | Delete | Yes | ✓ Allow |
| User | Public | Write | No | ✗ Deny |
| User | Public | Delete | No | ✗ Deny |
| User | Shared | Write | No | ✗ Deny |
| User | Shared | Delete | No | ✗ Deny |
| User | Private | * | No | ✗ Deny |
| Guest | Public | Read | * | ✓ Allow |
| Guest | Private | Read | * | ✗ Deny |
| Guest | * | Write | * | ✗ Deny |
| Guest | * | Delete | * | ✗ Deny |

Why Completeness Matters

Missing Cases == Bugs

| User Role | Resource Type | Action | Owner? | Result |
|-----------|---------------|--------|--------|---------|
| Admin | * | * | * | ✓ Allow |
| User | Public | Read | * | ✓ Allow |
| Guest | Public | Read | * | ✓ Allow |