

Sequence Diagram - Command Execution

Shows the flow of executing a validated command and updating device state.

| Participant | Action | Result |
|------------------------|------------------------------|------------------------------------|
| User | Execute command | |
| Frontend | POST /api/execute | {"device": "...", "action": "..."} |
| App | Validate command | Check validity |
| App | new CommandExecutorVisitor() | Create visitor |
| CommandExecutorVisitor | visit(deviceCommand) | Execute command |
| CommandExecutorVisitor | getState(deviceName) | Get device state |
| DeviceStateManager | getState() | Return DeviceState |
| CommandExecutorVisitor | Update state based on action | ON/OFF/INCREASE/etc |
| DeviceState | setOn() / setBrightness() | Update device properties |
| Repository | saveCommand() | Save to history |
| CommandExecutorVisitor | Return ExecutionResult | Success/failure |
| App | Return ResponseEntity | Return execution result |
| Frontend | Display result | Show to user |