

Sequence Diagram - Composite Command Execution

Shows how composite commands (multiple commands grouped together) are executed.

| Participant | Action | Result |
|------------------------|-------------------------------|---------------------------|
| User | Execute composite command | "Turn on all lights" |
| App | new CompositeCommand() | Create composite |
| App | Add DeviceCommandExpression 1 | "living room light", "ON" |
| App | Add DeviceCommandExpression 2 | "bedroom light", "ON" |
| CompositeCommand | interpret(context) | Interpret all commands |
| CompositeCommand | Loop: interpret each command | Process each command |
| App | new CommandExecutorVisitor() | Create visitor |
| CommandExecutorVisitor | visit(compositeCommand) | Execute composite |
| CommandExecutorVisitor | Loop: visit each command | Execute each command |
| DeviceStateManager | Update state for each device | Update all devices |
| Repository | saveCommand() for each | Save all commands |
| CommandExecutorVisitor | Return ExecutionResult | All commands executed |
| App | Return success | All lights turned on |