

# Activity Diagram - Command Flow

## Activity Flow:

### 1. Receive Command Input

From user voice or text input

### 2. Parse Command

Extract device name, action, and parameter

### 3. Validate Command

Check if device and action are valid

### 4. Create Command Expression

Create DeviceCommandExpression object

### 5. Create Context

Create VoiceCommandContext

### 6. Interpret Command

Interpret and calculate confidence

### 7. Create Executor

Create CommandExecutorVisitor

### 8. Execute Command

Visit and execute the command

### 9. Get Device State

Retrieve current device state

### 10. Update Device State

Update based on action type

### 11. Save to Repository

Save command to history

### 12. Return Response

Return success or error response

### 13. Display Result

Show result to user

## Decision Points:

- After Validation: If valid → Continue, If invalid → Return Error
- Action Type: ON/OFF, INCREASE/DECREASE, SET, DIM/BRIGHTEN, LOCK/UNLOCK