

Sequence Diagram - Command Interpretation

Shows the flow of interpreting a natural language command into a structured command.

Participant	Action	Result
User	Enter voice command	
Frontend	POST /api/interpret	{"command": "turn on living room light"}
App	parseDevice(command)	Extract device name
App	parseAction(command)	Extract action
App	parseParameter(command)	Extract parameter (if any)
App	new VoiceCommandContext()	Create context
App	new DeviceCommandExpression()	Create command expression
DeviceCommandExpression	validate()	Validate device and action
DeviceCommandExpression	interpret(context)	Interpret command
DeviceCommandExpression	calculateConfidence()	Calculate confidence score
Repository	setLastRawCommand()	Save raw command
App	generateAlternatives()	Generate alternative commands
App	Return ResponseEntity	Return interpretation result
Frontend	Display interpretation	Show to user