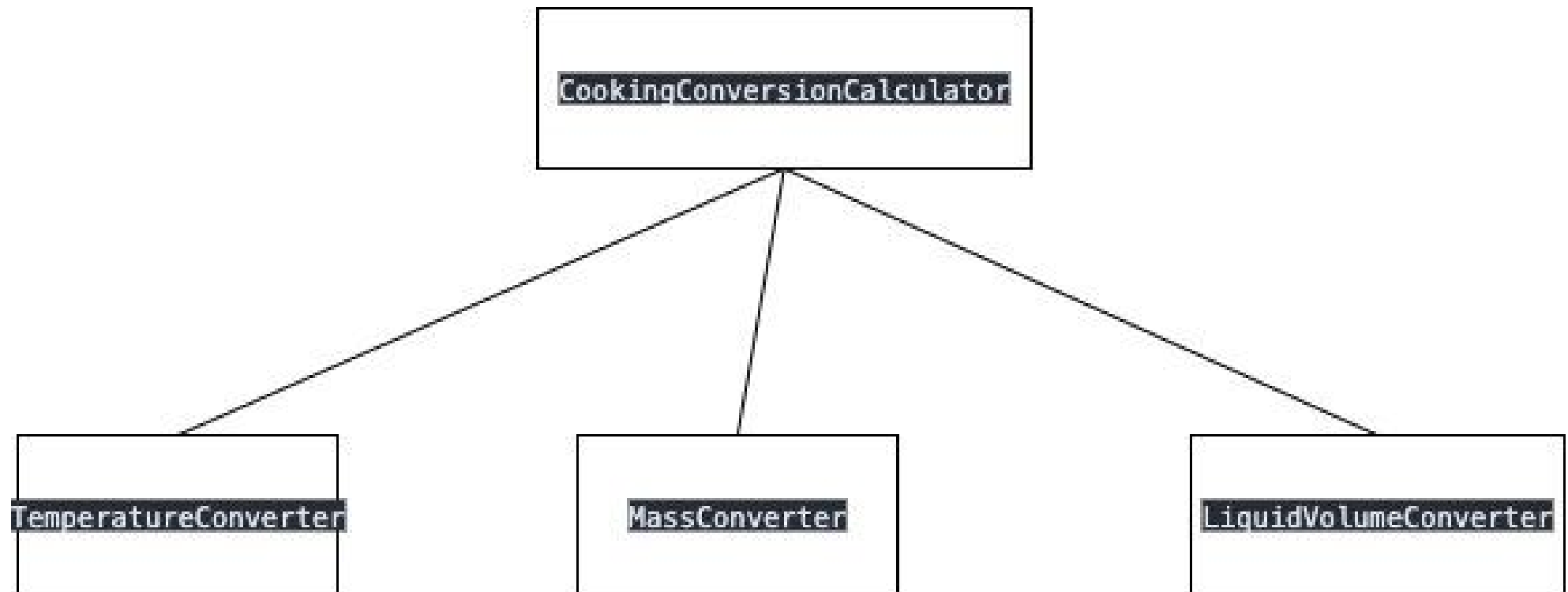


Program Structure



Top-down Integration

Unit under test	List of Stubs/Drivers	result	Stub's return value	Expected results	Actual results	Pass/Fail/No run
CookingConversionCalculator.convert() – Invalid Case	TemperatureConverterStub, MassConverterStub, LiquidVolumeConverterStub	Success	0.0 (returned for invalid choice)	0.0	0.0	Pass
CookingConversionCalculator.convert() – Mass	MassConverterStub	Success	250.0 (stubbed value for 2 cup to gram)	250.0	250.0	Pass
CookingConversionCalculator.convert() – Temperature	TemperatureConverterStub	Success	212.0 (stubbed value for 100 celsius to fahrenheit)	212.0	212.0	Pass

CookingConversionCalculator.convert() – Edge Cases	Stubs as appropriate	Success	edge value (e.g., 0, negative, boundary value)	edge case handled correctly	ได้ผลลัพธ์ตรงตามเส้นทาง	Pass
CookingConversionCalculator.convert() – LiquidVolume	LiquidVolumeConverterStub	Success	250.0 (stubbed value for 1 cup to ml)	250.0	250.0	Pass
CookingConversionCalculator – with MassConverter	JUnit as Driver; MassConverter (real or stub)	Success	250.0	250.0	250.0	Pass
CookingConversionCalculator – Boundary Values	JUnit as Driver	Success	0.0 (boundary)	0.0 or correct boundary	ถูกต้อง	Pass
System Integration (top-down & bottom-up)	JUnit as Driver, all real implementations	Success	Full correct value by true calculation	Full correct value	ตรงกันทุก test	Pass

CookingConversionCalculator.convert() – Invalid Case	TemperatureConverterStub, MassConverterStub, LiquidVolumeConverterStub	Success	0.0 (returned for invalid choice)	0.0	0.0	Pass

Bottom-up Integration

Unit under test	List of Stubs/Drivers	result	Stub's return value	Expected results	Actual results	Pass/Fail/No run
CookingConversionCalculator – with LiquidConverter	JUnit as Driver; LiquidVolumeConverter (real or stub)	Success	250.0	250.0	250.0	Pass
MassConverter.convert() (unit method)	JUnit as Driver	Success	250.0 (real calculation 2 cup to gram)	250.0	250.0	Pass
CookingConversionCalculator – with TemperatureConverter	JUnit as Driver; TemperatureConverter (real or stub)	Success	212.0 (or true value from real method)	212.0 (or true value)	212.0 (or true value)	Pass

TemperatureConverter.convert() (unit method)	JUnit as Driver	Success	212.0	212.0	212.0	Pass
LiquidVolumeConverter.convert() (unit method)	JUnit as Driver	Success	250.0 (real calculation 1 cup to ml)	250.0	250.0	Pass