# Exercise #1: Replacing a Broken Thermometer

- Problem Statement
  - You are on an expedition climbing Denali (6.193 m), one of the coldest mountains on earth. You need to reliably read the outside temperature for the last n hours (temperature curve) in Celsius
  - Inside the tent you are using a fancy digital thermometer with software implemented in Java. The program uses a *ThermoInterface* which provides the temperature in Celsius. It connects to the outside thermometer which runs software containing a class called `CelsiusThermo`

TemperatureCurve	«interface» *ThermoInterface*	CelsiusThermo
	+ getTempC()	+ getTempC()
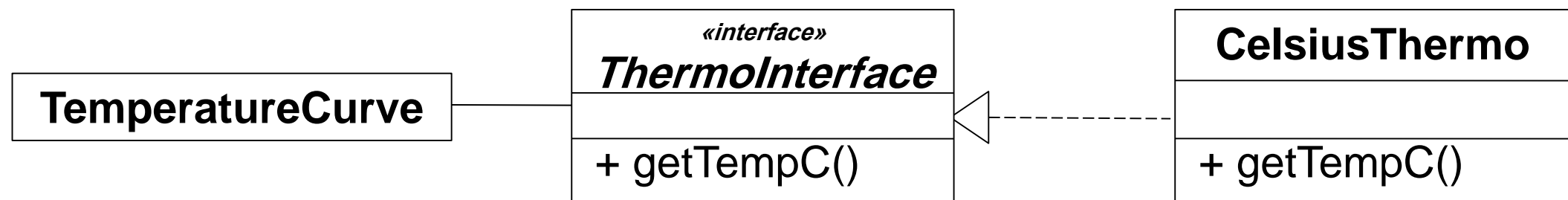
  - Somebody stepped on your outside Celsius thermometer (`CelsiusThermo`) and broke it
  - There is one more thermometer on the expedition, but this measures the temperature in Fahrenheit

Your Task: Write an adapter that solves the following problem (15 min)

- Reuse the code from the Fahrenheit thermometer (`FahrenheitThermo`) while still providing temperatures in Celsius in `TemperatureCurve`

  tempCelsius = (tempFahrenheit -32.0) * (5.0/9.0)

- Constraint: The `TemperatureCurve` code should only be minimally changed

- Source code for the exercise is offered on Moodle

  Upload your solution to Moodle: ☐ Exercise 1 – Student Solution Upload