

# **Week 4:**

## **b. MVC example**

(adapted from Swing version written by  
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# Model-View-Controller (MVC) Design Pattern

TA Exercise

1. percentage pie chart
2. color chooser (MVC together)

# MVC

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Based on the **divide and conquer** principle:

## **Model**

Holds the abstract data (e.g. a number) and methods to handle it.

## **View**

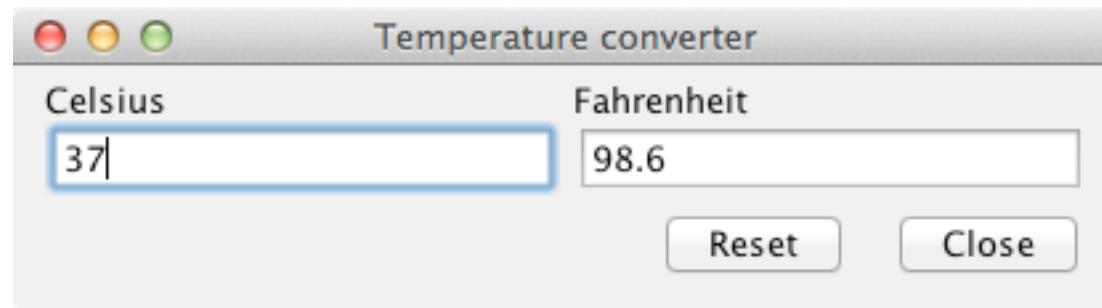
Defines the visual representation of a data (e.g. a slider to represent a number).

## **Controller**

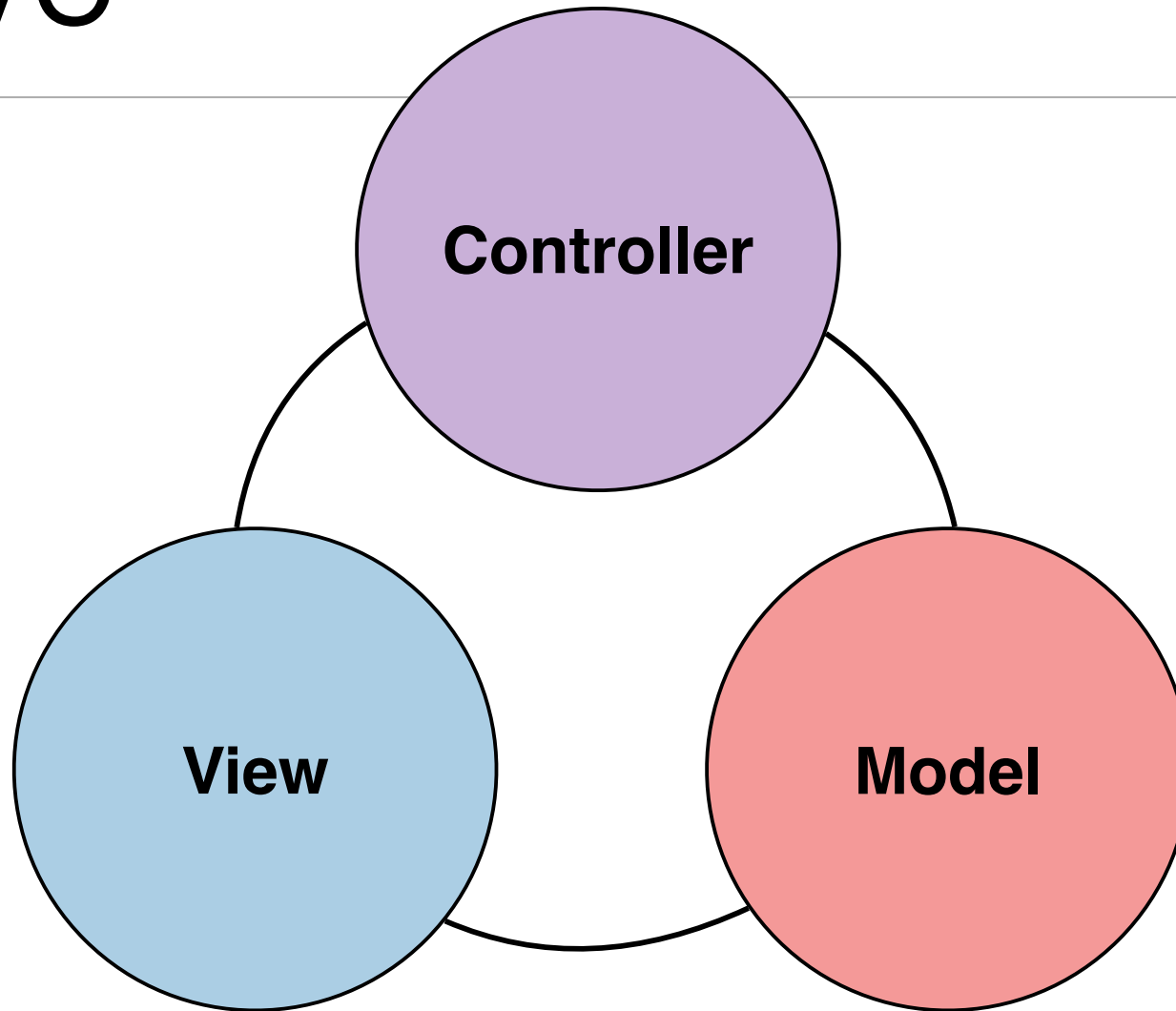
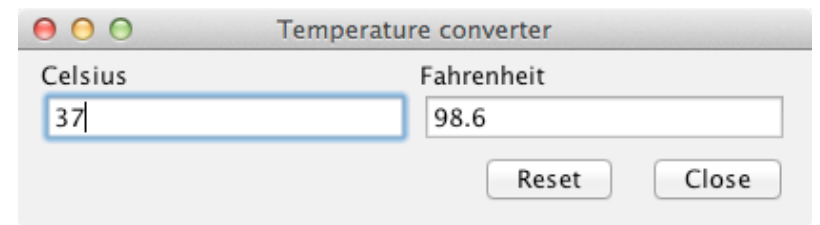
Manages the user input and sets the application behavior (e.g. adds a listener to the slider that updates the number).

# MVC

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# MVC



# Example

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Temperature  
Converter

## Controller

### TemperatureController

- Listener/Handler on TextFields
- Listener/Handler on closeButton
- Listener/Handler on resetButton

## View

### TemperatureView

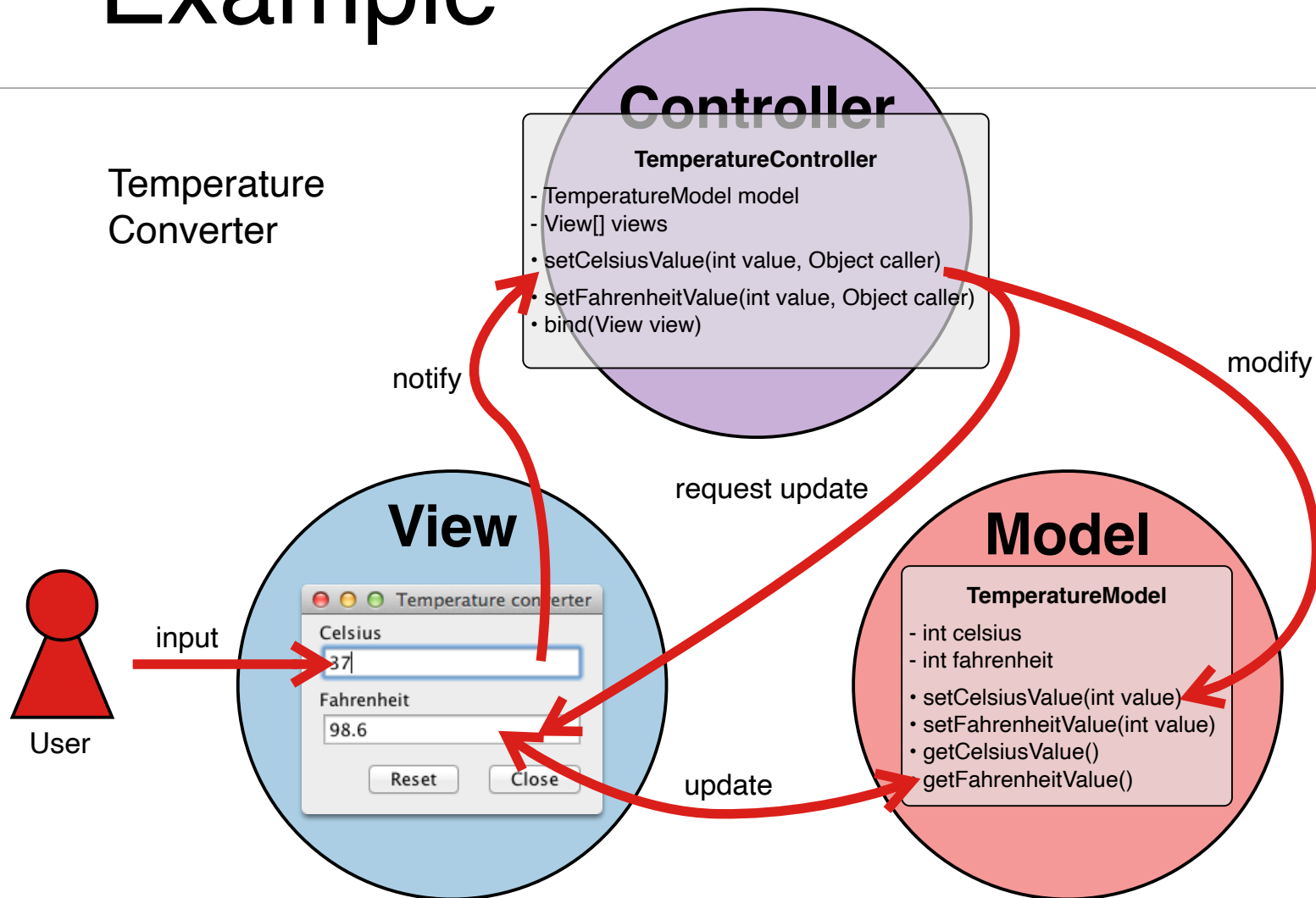
- TextField celsiusValue
- TextField fahrenheitValue
- Button closeButton
- Button resetButton

## Model

### TemperatureModel

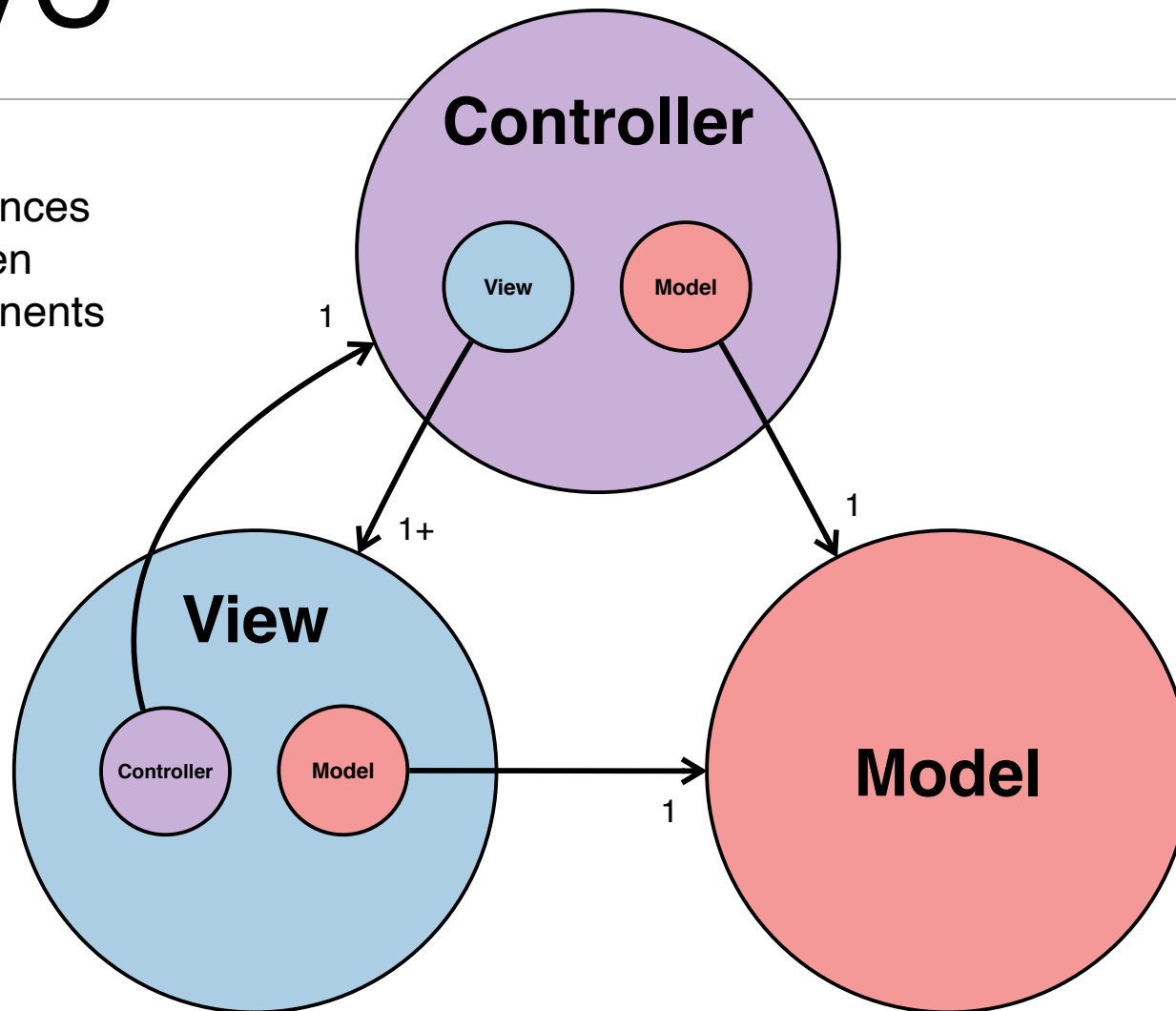
- float celsius
- float fahrenheit
- setCelsiusValue(float value)
- setFahrenheitValue(float value)
- getCelsiusValue()
- getFahrenheitValue()

# Example



# MVC

References  
between  
components





# In-class exercise

# In-class exercise

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Go to our website:

<http://www.lri.fr/~anab/teaching/HCID-ProgIS/>

go to TA1 and let's reorganise our code of temp converter

# Example

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Color  
Chooser

