

Lección 1: MultiCaseScreen

Lesson_1_Visualizing_Climate_Data_template

Screens: MultiCaseScreen + - ⚙

```

when [showDataButton v].Click
do [call topChartData2D v .Clear
call spreadsheet1 v .ReadSheet
sheetName "Spirit Lake"
call spreadsheet2 v .ReadSheet
sheetName "Otsego Lake"]

```



```

when [spreadsheet1 v].GotSheetData
sheetData
do [set topChartLabel v .Text v to "Spirit Lake, Orleans, Iowa"
call topChartData2D v .ImportFromSpreadsheet
spreadsheet spreadsheet1 v
xColumn "Year"
yColumn "Ice"
useHeaders true]

```



```

when [spreadsheet2 v].GotSheetData
sheetData
do [set topChartLabel v .Text v to "Otsego Lake, Cooperstown, NY"
call BotonChartData2D1 v .ImportFromSpreadsheet
spreadsheet spreadsheet2 v
xColumn "Year"
yColumn "Ice"
useHeaders true]

```

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- Control
- Logic
- Math
- Text
- Lists
- Dictionaries
- Colors
- Variables
- Procedures
- MultiCaseScreen
- HorizontalArrang

Rename Delete

tia

pp-inve...00f9.json

Show Warnings

zing_Climate_Data_template

Screens: singleCaseScreen + - ⚙

```

when [homeButton v].Click
do [open another screen screenName "Screen1"]

```



```

when [showDataButton v].Click
do [call topChartData2D v .Clear
call BotonChartData2D1 v .Clear
call spreadsheet1 v .ReadSheet
sheetName "Spirit Lake"]

```



```

when [spreadsheet1 v].GotSheetData
sheetData
do [set topChartLabel v .Text v to "Spirit Lake, Orleans, Iowa"
call topChartData2D v .ImportFromSpreadsheet
spreadsheet spreadsheet1 v
xColumn "Year"
yColumn "Ice"
useHeaders true]
call BotonChartData2D1 v .ImportFromSpreadsheet
spreadsheet spreadsheet1 v
xColumn "Year"
yColumn "Temp"
useHeaders true

```

Show Warnings

ite_Data_template

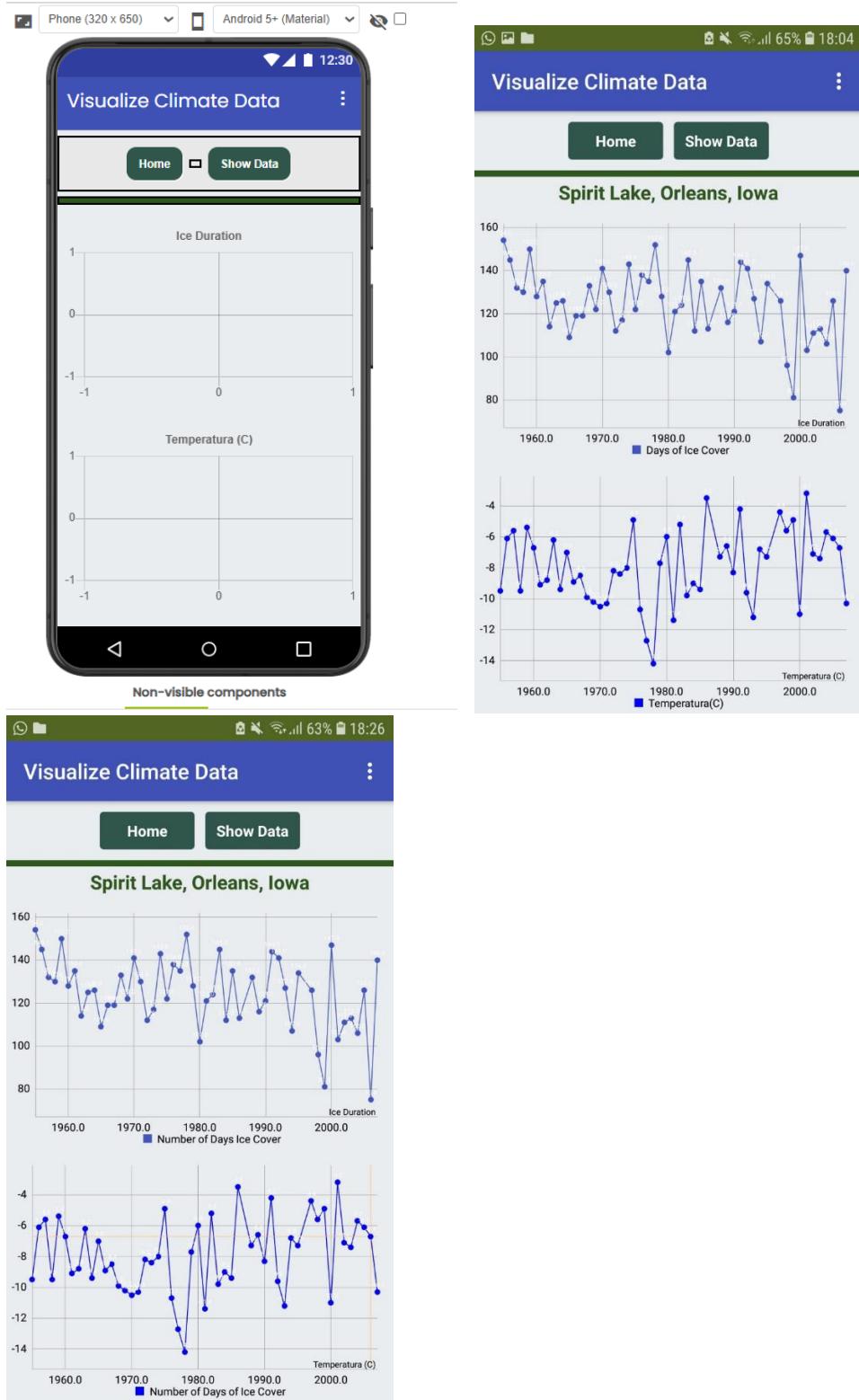
Screens: Screen1 + - ⚙

```

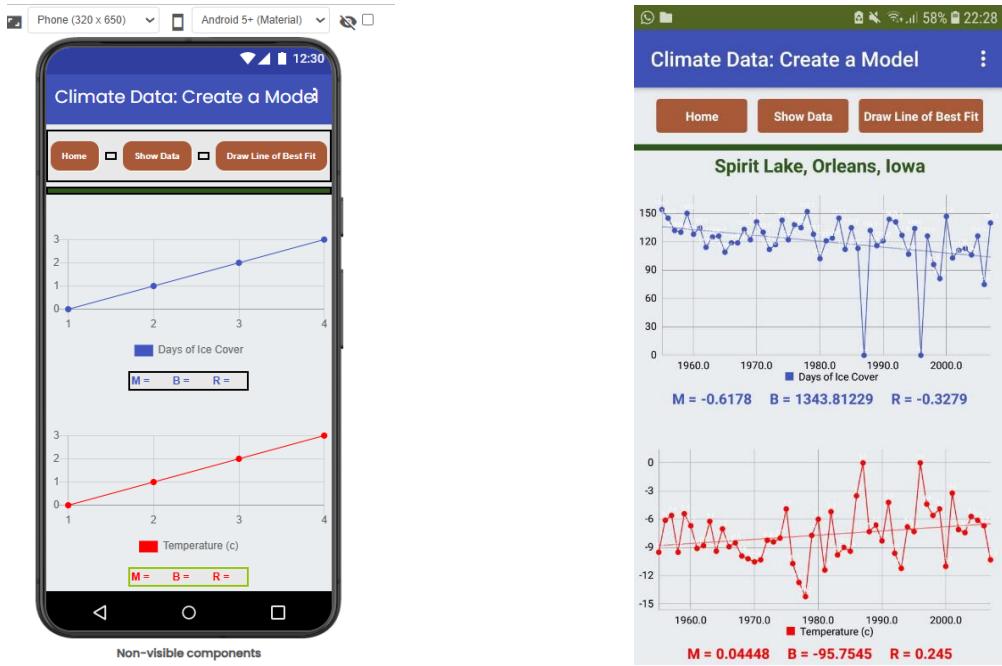
when [singleCaseScreenButton v].Click
do [open another screen screenName "singleCaseScreen"]

when [multicaseScreenButton v].Click
do [open another screen screenName "MultiCaseScreen"]

```



Lección 2: Draw Line of Best Fit



ta_template [Donate to App Inventor](#)

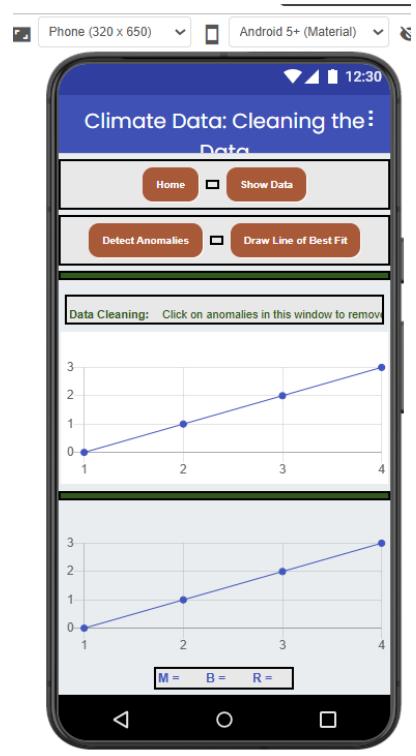
Screens: drawLOBFscreen

```

when homeButton .Click
do open another screen screenName [ Screen1 ]
when showDataButton .Click
do call topChartData2D .Clear
call bottomChartData2D .Clear
call spreadsheet1 .ReadSheet
sheetName [ "Spirit Lake" ]
when spreadsheet1 .GotSheetData
sheetData
do set topChartLabel .Text to [ "Spirit Lake, Orleans, Iowa" ]
call topChartData2D .ImportFromSpreadsheet
spreadsheet [ spreadsheet1 ]
xColumn [ "Year" ]
yColumn [ "Ice" ]
useHeaders [ true ]
call bottomChartData2D .ImportFromSpreadsheet
spreadsheet [ spreadsheet1 ]
xColumn [ "Year" ]
yColumn [ "Temp" ]
useHeaders [ true ]
when drawLineOfBestFitButton .Click
do set topTrendline1 .ChartData to [ topChartData2D ]
set bottomTrendline .ChartData to [ bottomChartData2D ]
set topSlopeValueLabel .Text to [ topTrendline1 .LinearCoefficient ]
set topY_intValueLabel .Text to [ topTrendline1 .YIntercept ]
set topCor_coefValueLabel .Text to [ topTrendline1 .CorrelationCoefficient ]
set bottomSlopeValueLabel .Text to [ bottomTrendline .LinearCoefficient ]
set bottomY_intValueLabel .Text to [ bottomTrendline .YIntercept ]
set bottomCor_coefValueLabel .Text to [ bottomTrendline .CorrelationCoefficient ]

```

Lección 3: Clean the data



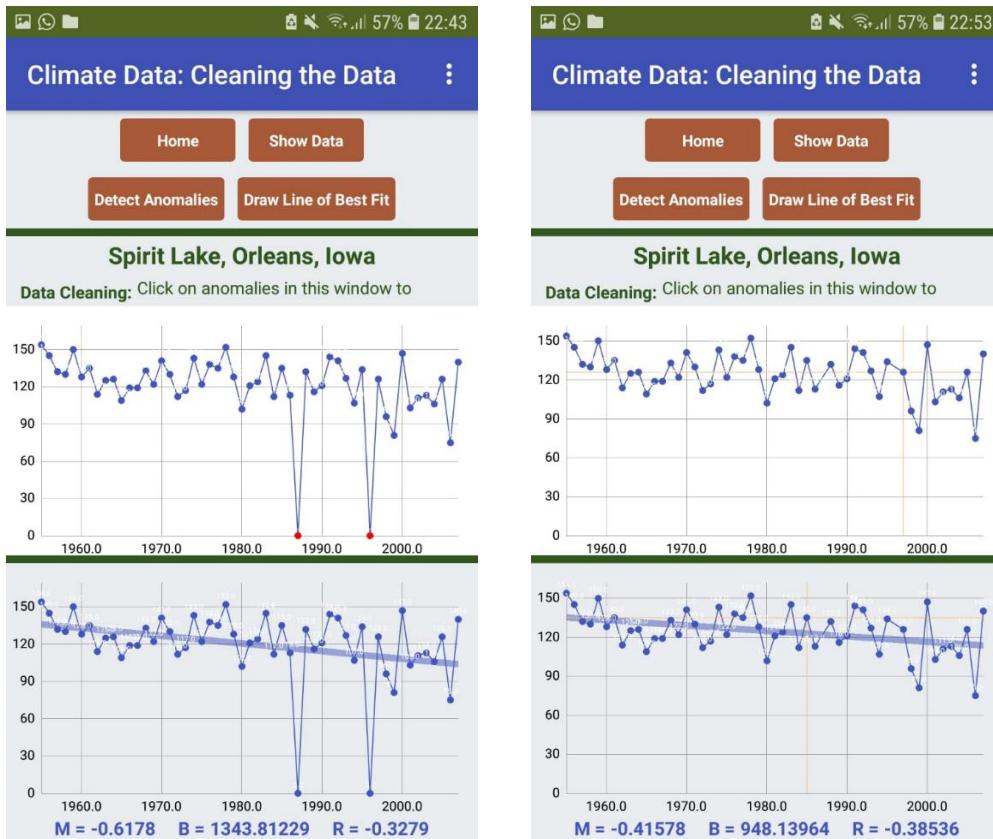
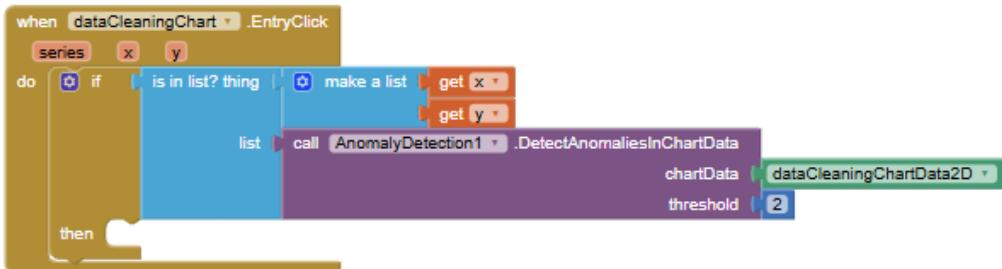
```

when detectAnomaliesButton .Click
do call dataCleaningChartData2D .HighlightDataPoints
    dataPoints | call AnomalyDetection1 .DetectAnomaliesInChartData
        chartData | dataCleaningChartData2D
        threshold | 2
    color | red

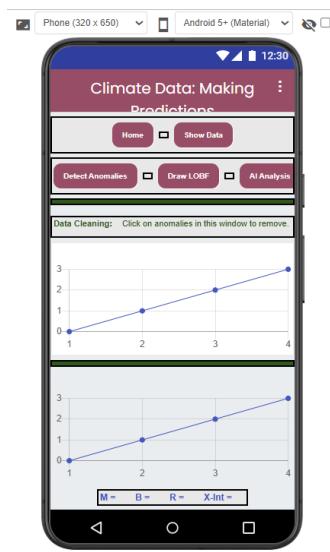
when dataCleaningChartData2D .EntryClick
x | y
do call dataCleaningChartData2D .RemoveEntry
    x | get x
    y | get y
call cleanedChartData2D .Clear
call cleanedChartData2D .ImportFromList
list | call dataCleaningChartData2D .GetAllEntries

when Trendline1 .Updated
results
do set SlopeValueLabel .Text to Trendline1 .LinearCoefficient
set Y_intValueLabel .Text to Trendline1 .YIntercept
set Cor_coefValueLabel .Text to Trendline1 .CorrelationCoefficient

```



Lección 4: Comparing Math Predictions and AI



```

when Trendline1 .Updated
  results
do set SlopeValueLabel . Text to Trendline1 . LinearCoefficient
  set Y_intValueLabel . Text to round [ Trendline1 . YIntercept ]
  set Cor_coefValueLabel . Text to round [ Trendline1 . CorrelationCoefficient ]
  set X_intValueLabel . Text to round [ Trendline1 . XIntercepts ]
  call cleanedChartData . ExtendDomainToInclude
    x [ Trendline1 . XIntercepts ]

```

```

when detectAnomaliesButton .Click
do call dataCleaningChartData2D .HighlightDataPoints
  dataPoints | call AnomalyDetection1 . DetectAnomaliesInChartData
    charData [ dataCleaningChartData2D ]
    threshold 2
  color red

```

```

when dataCleaningChart .EntryClick
  series x y
do call dataCleaningChartData2D . RemoveEntry
  x [ get x ]
  y [ get y ]
call cleanedChartData2D .Clear
call cleanedChartData2D .ImportFromList
list | call dataCleaningChartData2D . GetAllEntries

```

```

when AiAnalysisButton .Click
do set dataCleaningChart . Visible to false
  set dataCleaningHorizontalArrangement . Visible to false
  set AiResponseHorizontalArrangement . Visible to true
  call ChatBot1 .Converse
    question join [
      " Dado los siguientes datos para el numero anual "
      " Numero de dias que un lago de agua dulce estuvo ... "
      call cleanedChartData2D . GetAllEntries
      " El coeficiente de correlacion para mejor ajuste... "
      Trendline1 . CorrelationCoefficient
      " La pendiente de la linea de mejor ajuste es... "
      Trendline1 . LinearCoefficient
      " La intercepcion en "y" para la linea de mejor aj... "
      Trendline1 . YIntercept
      " Primero, que predice el año que probablemente no... "
      " Como relaciona esta tendencia con el cambio c... "
      " Que pasa con las personas que viven cerca? "
      " Limita tus respuestas a 120 palabras "
    ]

```

```

when ChatBot1 .GotResponse
  responseText
do set AiResponseTextBox . Text to get responseText

```

