

Lección 1: MultiCaseScreen

Lesson_1_Visualizing_Climate_Data_template

Donate to App Inventor

Screens: MultiCaseScreen + - ⚙

ult-in

Control

Logic

Math

Text

Lists

Dictionaries

Colors

Variables

Procedures

MultiCaseScreen

HorizontalArrang

pp-inve_00f9.json

Upload File ...

when homeButton Click

do open another screen screenName Screen1

when showDataButton Click

do

call topChartData2D Clear

call spreadsheet1 ReadSheet

sheetName Spirit Lake

call spreadsheet2 ReadSheet

sheetName Otsego Lake

when spreadsheet1 GoSheetData

sheetData

do

set topChartLabel Text to Spirit Lake, Orleans, Iowa

call topChartData2D ImportFromSpreadsheet

spreadsheet spreadsheet1

xColumn Year

yColumn Ice

useHeaders true

when spreadsheet2 GoSheetData

sheetData

do

set topChartLabel Text to Otsego Lake, Cooperstown, NY

call BotonChartData2D1 ImportFromSpreadsheet

spreadsheet spreadsheet2

xColumn Year

yColumn Ice

useHeaders true

0

0

Show Warnings

Projects

Connect

Build

Settings

Help

En

zing_Climate_Data_template

Donate to App Inventor

Screens: singleCaseScreen + - ⚙

when homeButton Click

do open another screen screenName Screen1

when showDataButton Click

do

call topChartData2D Clear

call BotonChartData2D1 Clear

call spreadsheet1 ReadSheet

sheetName Spirit Lake

when spreadsheet1 GoSheetData

sheetData

do

set topChartLabel Text to Spirit Lake, Orleans, Iowa

call topChartData2D ImportFromSpreadsheet

spreadsheet spreadsheet1

xColumn Year

yColumn Ice

useHeaders true

call BotonChartData2D1 ImportFromSpreadsheet

spreadsheet spreadsheet1

xColumn Year

yColumn Temp

useHeaders true

0

0

Show Warnings

Projects

Connect

Build

ite_Data_template

Donate to App Inventor

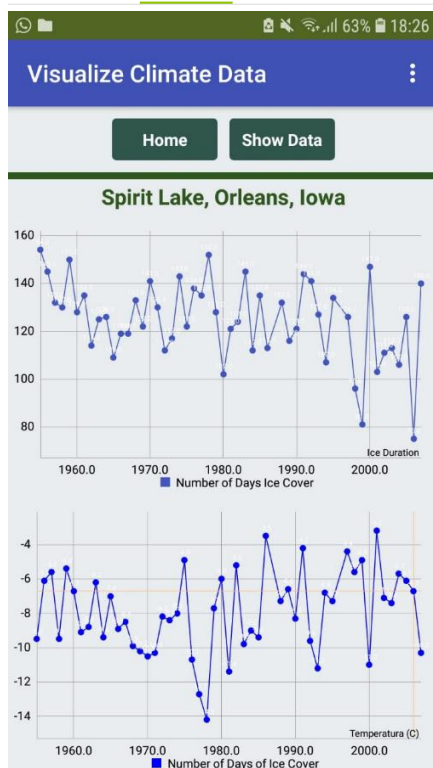
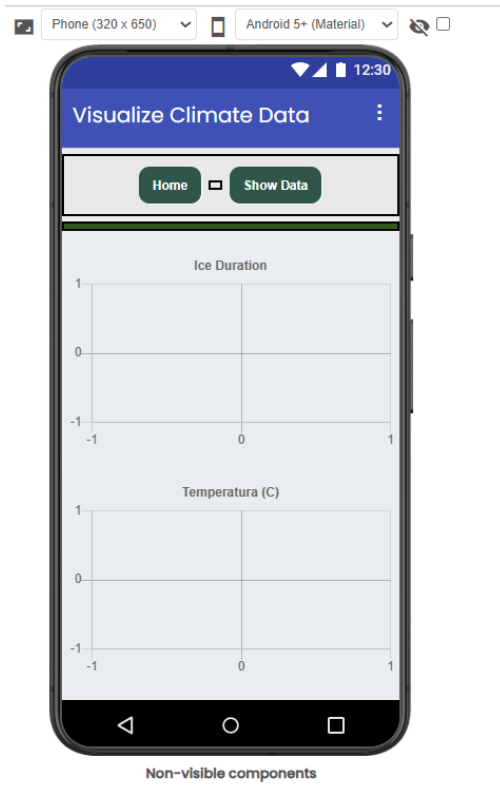
Screens: Screen1 + -

when singleCaseScreenButton Click

do open another screen screenName singleCaseScreen

when multicaseScreenButton Click

do open another screen screenName MultiCaseScreen



Lección 2: Draw Line of Best Fit



Projects Connect Build Settings

ta_template Donate to App Inventor Screens: drawLOBFscreen

```

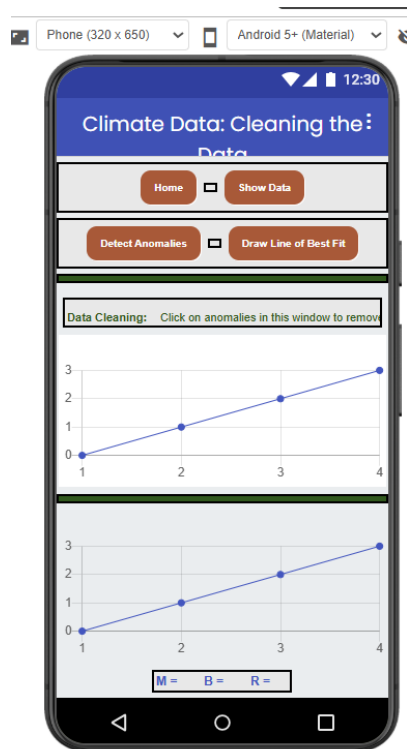
when homeButton.Click
do
  open another screen screenName Screen1

when showDataButton.Click
do
  call topChartData2D.Clear
  call bottomChartData2D.Clear
  call spreadsheet1.ReadSheet
  spreadsheet1.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 bottomTrendline1.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 bottomTrendline1.LinearCoefficient
  set bottomY_intValueLabel.Text to bottomTrendline1.YIntercept
  set bottomCor_coefValueLabel.Text to bottomTrendline1.CorrelationCoefficient
  
```

Lección 3: Clean the data



```

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

```

```

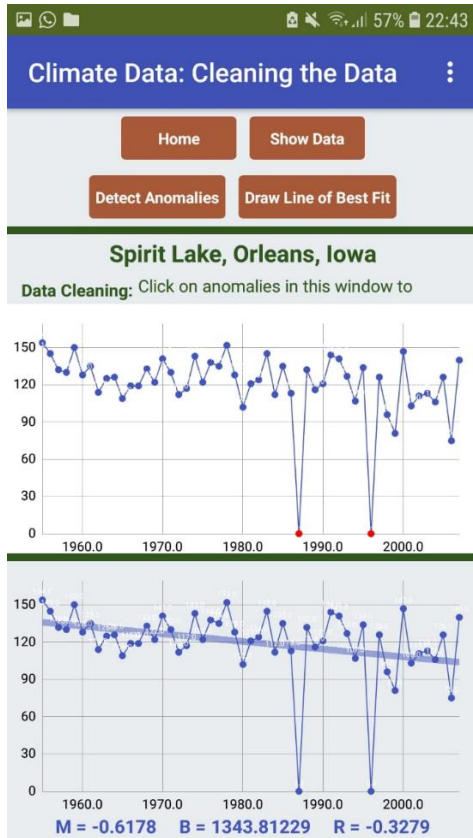
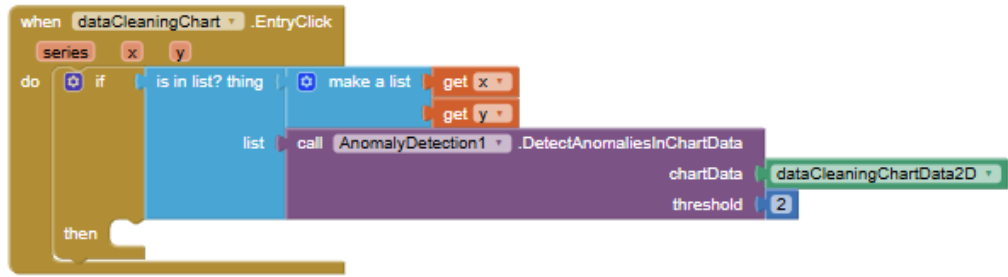
when dataCleaningChartData2D.EntryClick
do
  call dataCleaningChartData2D.RemoveEntry
    x
    y
  call cleanedChartData2D.Clear
  call cleanedChartData2D.ImportFromList
    list
    call dataCleaningChartData2D.GetAllEntries

```

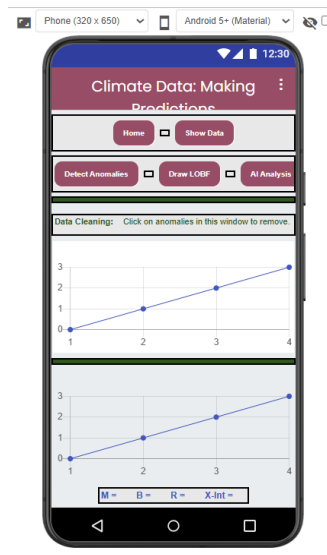
```

when Trendline1.Updated
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 Trendline1 - .CorrelationCoefficient
  set X_intValueLabel - .Text to round Trendline1 - .XIntercepts
  call cleanedDataChart - .ExtendDomainToInclude
    x Trendline1 - .XIntercepts

```

```

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

```

```

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
      " Lapendiente 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 serelaciona 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

```

