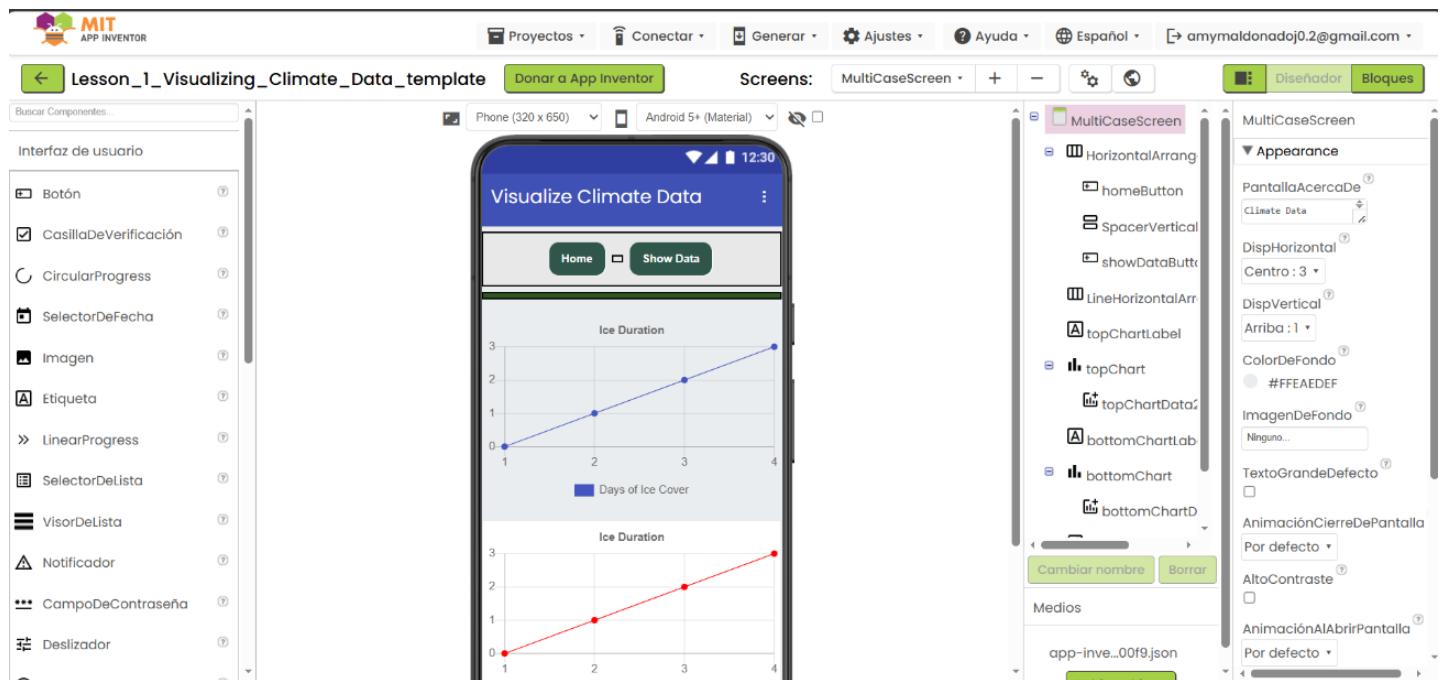


**Tarea 9 (22/12/2025):** Proyecto IceMelt: Modeling and Predicting Climate Change  
**Por:** Amy Maldonado Jaramillo



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Lesson\_1\_Visualizing\_Climate\_Data\_template

Screens: Screen1 + - ⚙️ 🌎

Integrados

- Control
- Lógica
- Matemáticas
- Texto
- Listas
- Diccionarios
- Colores
- Variables
- Procedimientos

Screen1

cuando singleCaseScreenButton .Clic  
ejecutar abrir otra pantalla Nombre de la pantalla singleCaseScreen

cuando multicaseScreenButton .Clic  
ejecutar abrir otra pantalla Nombre de la pantalla MultiCaseScreen

The screenshot shows the App Inventor interface with the following details:

- Top Bar:** Includes a back arrow, the title "Lesson\_1\_Visualizing\_Climate\_Data\_template", a "Donar a App Inventor" button, and a "Screens:" dropdown set to "singleCaseScreen".
- Left Sidebar:** A tree view of components:
  - Integrados
    - Control
    - Lógica
    - Matemáticas
    - Texto
    - Listas
    - Diccionarios
    - Colores
    - VARIABLES
    - Procedimientos
  - singleCaseScreen
  - HorizontalArrang
- Bottom Buttons:** "Cambiar nombre", "Borrar", and two status indicators (yellow triangle 0, red circle 0).
- Code Area:** Three blocks of code are shown:
  - A gold block triggered by "cuando homeButton .Clic": "ejecutar abrir otra pantalla Nombre de la pantalla Screen1".
  - A gold block triggered by "cuando showDataButton .Clic": "ejecutar llamar topChartData2D .Limpiar", "llamar bottomChartData2D .Limpiar", and "llamar spreadsheet1 LeerHoja" with "nombreHoja" set to "Spirit Lake".
  - A gold block triggered by "cuando spreadsheet1 .ObtenidoDatosHoja":
    - "ejecutar poner topChartLabel .Texto como" with "Spirit Lake, Orleans, Iowa".
    - "llamar topChartData2D .ImportarDesdeHojaCálculo" with "hojadecálculo" set to "spreadsheet1", "columnaX" set to "Year", and "columnaY" set to "Ice".
    - "usarEncabezados" set to "verdadero".
    - "llamar bottomChartData2D .ImportarDesdeHojaCálculo" with "hojadecálculo" set to "spreadsheet1", "columnaX" set to "Year", and "columnaY" set to "Temp".
    - "usarEncabezados" set to "verdadero".

The screenshot shows the MIT App Inventor Designer interface. The top navigation bar includes 'Proyectos', 'Conectar', 'Generar', 'Ajustes', 'Ayuda', 'Español', and a user email 'amymaldonadoj0.2@gmail.com'. Below the navigation is a title bar for 'Lessons\_2\_and\_3\_Modeling\_and\_Cleaning\_Climate\_Data\_template' with a 'Donar a App Inventor' button. The main workspace displays two screens: 'drawLOBFscreen' and 'drawLOBFscreen'. The left screen shows a graph titled 'Climate Data: Create a Model' with a blue line of best fit through four data points at (1,0), (2,1), (3,2), and (4,3). The right screen shows a similar graph with a red trendline through the same points. The left sidebar lists components: Botón, CasillaDeVerificación (checked), CircularProgress, SelectorDeFecha, Imagen, Etiqueta, LinearProgress, SelectorDeLista, VisorDeLista, Notificador, CampoDeContraseña, and Deslizador. The right sidebar shows the component tree for 'drawLOBFscreen' and various properties like 'Days of Ice Cover' color (#FFAEDEF), chart colors, and background images.

## **Tarea 9 (22/12/2025): Proyecto IceMelt: Modeling and Predicting Climate Change**

**Por:** Amy Maldonado Jaramillo

The screenshot shows the App Inventor 2 interface with the following details:

- Top Bar:** Projects, Connect, Build, Settings, Help, English, and a user email (amymaldonadoj0.2@gmail.com).
- Project Title:** Lesson\_4\_Predictions\_template
- Header Buttons:** Donate to App Inventor, Screens: makePredictionsScreen, and Designer/Blocks tabs.
- Sidebar (Left):**
  - Built-in categories: Control, Logic, Math, Text, Lists, Dictionaries, Colors, Variables, Procedures.
  - Specific screens: makePredictionsScreen, buttonHorizontal.
- Workspace (Main Area):** Displays several blocks of code:
  - when homeButton - Click: do open another screen screenName [Screen1 -]
  - when showDataButton - Click: do call cleanedChartData2D - .Clear, call dataCleaningChartData2D - .Clear, call spreadsheet1 - ReadSheet sheetName [Spirit Lake -]
  - when spreadsheet1 - GotSheetData sheetData: do set topChartLabel - Text to [Spirit Lake, Orleans, Iowa -], call cleanedChartData2D - ImportFromSpreadsheet spreadsheet [spreadsheet1 -], xColumn [Year -], yColumn [Ice -], useHeaders [true -], call dataCleaningChartData2D - ImportFromSpreadsheet spreadsheet [spreadsheet1 -], xColumn [Year -], yColumn [Ice -], useHeaders [true -]
  - when drawLineOfBestFitButton - Click: do set Trendline1 - ChartData to cleanedChartData2D -
  - when Trendline1 - Updated results: do set SlopeValueLabel - Text to [Trendline1 - LinearCoefficient -], set Y\_intValueLabel - Text to [round - Trendline1 - YIntercept -], set Cor\_coeffValueLabel - Text to [Trendline1 - CorrelationCoefficient -]
- Bottom Tools:** Rename, Delete, Show Warnings (with 0 warnings), and a trash bin icon.

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User Interface

- Button
- CheckBox
- CircularProgress
- DatePicker
- Image
- Label
- LinearProgress
- ListPicker
- ListView
- Notifier
- PasswordTextBox
- Slider
- Spinner

Screens: makePredictionsScreen

Properties for dataCleaningChart:

- AxesTextColor: Default
- BackgroundColor: White
- Description:
- GridEnabled: checked
- Height: Fill parent...
- Width: Fill parent...
- LabelsFromString:
- LegendEnabled: unchecked
- ValueFormat: Decimal
- Visible:

```

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 topTrendline .ChartData to topChartData2D
set bottomTrendline .ChartData to bottomChartData2D
set topSlopeValueLabel .Text to topTrendline .LinearCoefficient
set topY_intValueLabel .Text to topTrendline .YIntercept
set topCor_coefValueLabel .Text to topTrendline .CorrelationCoefficient
set bottomSlopeValueLabel .Text to bottomTrendline .LinearCoefficient
set bottomY_intValueLabel .Text to bottomTrendline .YIntercept
set bottomCor_coefValueLabel .Text to bottomTrendline .CorrelationCoefficient

```

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Projects ▾ Connect ▾ Build ▾ Settings ▾ Help ▾ English ▾ amymaldonadoj0.2@gmail.com ▾

### \_Modeling\_and\_Cleaning\_Climate\_Data\_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 bottomTrendline2.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 bottomTrendline2.LinearCoefficient]
[set bottomY_intValueLabel.Text to bottomTrendline2.YIntercept]
[set bottomCor_coefValueLabel.Text to bottomTrendline2.CorrelationCoefficient]

```

⚠ 0 ⚡ 0 Show Warnings

### Lessons\_2\_and\_3\_Modeling\_and\_Cleaning\_Climate\_Data\_template

Donate to App Inventor

cleanedchart

- ↑ Trendline1
- ☰ trendlineValues
  - Ⓐ SlopeLabel
  - Ⓐ SlopeValueLab
  - Ⓐ Y\_intLabel
  - Ⓐ Y\_intValueLab
  - Ⓐ Cor\_coefLabel
  - Ⓐ Cor\_coefValue
- ☒ spreadsheet
- ⓘ AnomalyDetectic
- ⊕ Any component

Rename Delete

```

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

when showDataButton.Click
do [call cleanedChartData2D.Clear]
[call dataCleaningChartData2D.Clear]
[call spreadsheet1.ReadSheet]
[sheetName | "Spirit Lake"]

when spreadsheet1.GotSheetData
sheetData
do [set topChartLabel.Text to "Spirit Lake, Orleans, Iowa"]
[call dataCleaningChartData2D.ImportFromSpreadsheet]
[spreadsheet | spreadsheet1]
[xColumn | "Year"]
[yColumn | "Ice"]
[useHeaders | true]
[call cleanedChartData2D.ImportFromSpreadsheet]
[spreadsheet | spreadsheet1]
[xColumn | "Year"]
[yColumn | "Ice"]
[useHeaders | true]

when drawLineOfBestFitButton.Click
do [set trendline1.ChartData to cleanedChartData2D]

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

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

when trendline1.Updated
results
do [set SlopeLabel.Text to trendline1.LinearCoefficient]
[set Y_intValueLabel.Text to trendline1.YIntercept]
[set Cor_coefValueLabel.Text to trendline1.CorrelationCoefficient]

```

⚠ 0 ⚡ 0 Show Warnings