



INTRODUÇÃO ao MIT APP INVENTOR

Para acesso a internet:

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AGENDA DIA 2 de 2

01

LAYOUT DA TELA

02

Quando clicar no Botão

03

Condicional IF

04

Inserir Ferramenta lógica

05

Verificar se campo vazio

06

msg ERRO

07

Calcular e exibir resultado

08

Comparar Texto

09

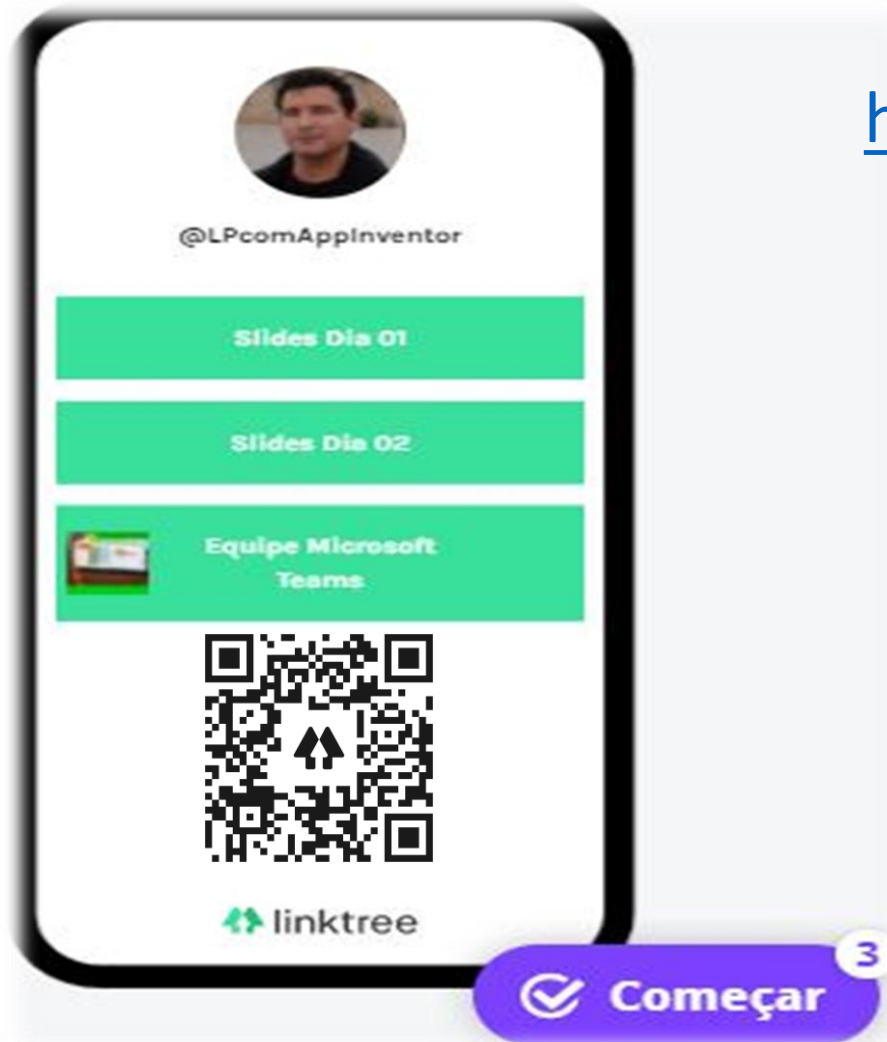
Verdadeiro e falso da
Comparação

10

Testar App desenvolvido!



0 - APRESENTAÇÃO



<https://linktr.ee/LPcomAppInventor>



01 – LAYOUT DO APP

The image shows the App Inventor web interface. On the left is the **Palette** with categories: User Interface, Layout, Media, Drawing and Animation, Maps, Sensors, Social, Storage, Connectivity, LEGO® MINDSTORMS®, Experimental, and Extension. The **Layout** section is expanded, showing **HorizontalArrangement**, **HorizontalScrollArrangement**, **TableArrangement**, **VerticalArrangement**, and **VerticalScrollArrangement**. A blue callout box highlights these layout options.

The **Viewer** on the right shows a mobile app preview for 'Screen1'. The design is built using nested layouts:

- A **Label** at the top.
- A **HorizontalArrangement** containing two input fields.
- A **HorizontalArrangement** containing two input fields.
- A **HorizontalArrangement** containing two input fields.
- A **Button** at the bottom.

An arrow points from the **VerticalArrangement** option in the Palette to the first **HorizontalArrangement** in the design, indicating its use in the layout structure.

To the right of the design view is a final rendered app preview titled 'App para Cálculo de Média Escolar'. It features:

- Input fields for 'Nota 1:' and 'Nota 2:'.
- Input fields for 'Peso 1:' (with value 2) and 'Peso 2:' (with value 3).
- A 'Calcular Média' button.
- A 'MÉDIA' label in a grey box.

A curved arrow indicates the transition from the design view to the rendered app.

02 – Quando clicar no Botão

Clique com o
botão
esquerdo do
mouse na
Ferramenta
BtnMedia

Media_com_Pesos2

Screen1 Add Screen ... Remove Screen Publish to Gallery

Designer Blocks

Blocks

- OrganizaçãoHorizontal
- OrganizaçãoVertical
 - Legenda1
 - TxT1
 - Legenda2
 - TxT2
- OrganizaçãoVertical
 - Legenda3
 - LBLmedia
- HorizontalArrangement
 - Label2
 - TXTPeso1
- HorizontalArrangement
 - Label3
 - TXTPeso2
- BtnMedia**
- LBLmsg
- Any component

Rename Delete

Media

Upload File ...

Viewer

when BtnMedia .Click

do

when BtnMedia .GotFocus

do

when BtnMedia .LongClick

do

when BtnMedia .LostFocus

do

when BtnMedia .TouchDown

do

when BtnMedia .TouchUp

do

BtnMedia BackgroundColor

Arraste p/ Projeto

when BtnMedia .Click

do

03 – Estrutura Condicional IF

Vá nas
ferramentas de
Controle
E escolha a
opção de IF
que tenha:
if....then.....
else if... then
else...

Media_com_Pesos2

Screen1 Add Screen ... Remove Screen Publish to Gallery

Designer Blocks

Blocks

Built-in

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

Screen1

- TituloApp
- OrganizaçãoHorizonta
- OrganizaçãoVertic
- Legenda1
- TxT1
- Legenda2
- TvT9

Rename Delete

Media

Upload File ...

Viewer

if then

when BtnMedia .Click

do

if then else if then else

If the first value is true, then do the first block of statements. Otherwise, if the second value is true, do the second block of statements. If none of the values are true, do the last block of statements.

for each number from 1 to 5 by 1

do

Show Warnings

for each item in list

do

Arraste p/ Projeto

04 – Inserir ferramenta de Lógica

Media_com_Pesos2 Screen1 Add Screen ... Remove Screen Publish to Gallery Designer Blocks

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Dictionaries
 - Colors
 - Variables
 - Procedures
- Screen1
 - TituloApp
 - OrganizaçãoHorizontal
 - OrganizaçãoVertical
 - Legenda1
 - TxT1
 - Legenda2
 - TvT2

Rename Delete

Media

Upload File ...

Viewer

when BtnMedia .Click

do

- if
- then
- else if
- then
- else

2 0

Show Warnings

Designer Blocks

05 – Verificar se campo vazio

Media_com_Pesos2 Screen1 Add Screen ... Remove Screen Publish to Gallery Designer Blocks

Blocks

- Lists
- Dictionaries
- Colors
- Variables
- Procedures
- Screen1
 - TituloApp
 - OrganizaçãoHorizontal1
 - OrganizaçãoVertical1
 - Legenda1
 - TxT1**
 - Legenda2
 - TxT2
 - OrganizaçãoVertical2
 - Legenda3
 - LBLmedia
 - HorizontalArrangement1

Rename Delete

Media

Upload File ...

Viewer

TxT1 . Height

set TxT1 . Height to

set TxT1 . HeightPercent to

TxT1 . Hint

set TxT1 . Hint to

TxT1 . MultiLine

set TxT1 . MultiLine to

TxT1 . NumbersOnly

set TxT1 . NumbersOnly to

TxT1 . ReadOnly

set TxT1 . ReadOnly to

TxT1 . Text

Returns the textbox contents.

A text string.

join

length

is empty

compare texts <

trim

upcase

starts at text piece

contains text piece

split text at

when BtnMedia . Click

do

if

TxT1 . Text =

then

else if

then

else

10:36

06 – Exibir msg de ERRO p/ Nota 1

Media_com_Pesos2

Screen1 Add Screen ... Remove Screen Publish to Gallery

Designer Blocks

Blocks

- OrganizaçãoHorizontal1
 - OrganizaçãoVertical1
 - Legenda1
 - TxT1
 - Legenda2
 - TxT2
 - OrganizaçãoVertical2
 - Legenda3
 - LBLmedia
- HorizontalArrangement1
 - Label2
 - TXTpeso1
- HorizontalArrangement2
 - Label3
 - TXTpeso2
- BtnMedia
- LBLmsg

Any component

Rename Delete

Media

Upload File ...

Viewer

when BtnMedia .Click

do

if TxT1 .Text = "0"

then set LBLmsg .Text to "Favor Preencher Nota 1"

else if

then

else

LBLmsg .BackgroundColor

set LBLmsg .BackgroundColor to

LBLmsg .FontSize

set LBLmsg .FontSize to

LBLmsg .HTMLContent

LBLmsg .HasMargins

set LBLmsg .HasMargins to

LBLmsg .Height

set LBLmsg .Height to

set LBLmsg .HeightPercent to

LBLmsg .Text

set LBLmsg .Text to

Returns the text displayed by the label.

06 – Exibir msg de ERRO p/ Nota 2

Media_com_Pesos2

Screen1 Add Screen ... Remove Screen Publish to Gallery

Designer Blocks

Blocks

- OrganizaçãoHorizontal1
 - OrganizaçãoVertical1
 - Legenda1
 - TxT1
 - Legenda2
 - TxT2
 - OrganizaçãoVertical2
 - Legenda3
 - LBLmedia
- HorizontalArrangement1
 - Label2
 - TXTpeso1
- HorizontalArrangement2
 - Label3
 - TXTpeso2
- BtnMedia
- LBLmsg

Any component

Rename Delete

Media

Upload File ...

Viewer

LBLmsg . BackgroundColor

set LBLmsg . BackgroundColor to

LBLmsg . FontSize

set LBLmsg . FontSize to

LBLmsg . HTMLContent

LBLmsg . HasMargins

set LBLmsg . HasMargins to

LBLmsg . Height

set LBLmsg . Height to

set LBLmsg . HeightPercent to

LBLmsg . Text

set LBLmsg . Text to

Returns the text displayed by the label.

when BtnMedia . Click

do

if TxT1 . Text =

then

else if

then

else

07 – Calcular e exibir resultado

Media_com_Pesos2

Screen1 Add Screen ... Remove Screen Publish to Gallery

Designer Blocks

Blocks

Built-in

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

Screen1

TituloApp

OrganizaçãoHorizontal1

OrganizaçãoVertical1

- Legenda1
- TxT1
- Legenda2
- TvT?

Rename Delete

Media

Viewer

when BtnMedia .Click

do

if

then TxT1 .Text =

then set LBLmsg .Text to "Favor Preencher Nota 1"

else if

then TxT2 .Text =

then set LBLmsg .Text to "Favor Preencher Nota 2"

else set LBLmedia .Text to

when BtnMedia .Click

do

if

then TxT1 .Text =

then set LBLmsg .Text to "Favor Preencher Nota 1"

else if

then TxT2 .Text =

then set LBLmsg .Text to "Favor Preencher Nota 2"

else set LBLmedia .Text to

$$\frac{Nota1 * Peso1 + Nota2 * Peso2}{(Peso1 + Peso2)}$$

É necessário arrastar um bloco dentro de outro.

Show Warnings

12:04

11

07 – Calcular e exibir resultado

Media_com_Pesos2

Screen1 Add Screen ... Remove Screen Publish to Gallery

Designer Blocks

Blocks

Built-in

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

Screen1

- TituloApp
- OrganizaçãoHorizontal1
- OrganizaçãoVertical1
 - Legenda1
 - TxT1
 - Legenda2
 - TxT2

Rename Delete

Media

Viewer

when BtnMedia Click

do

if TxT1 Text =

then set LBLmsg Text to Favor Preencher Nota 1

else if TxT2 Text =

then set LBLmsg Text to Favor Preencher Nota 2

else set LBLmedia Text to

$$\frac{\text{TxT1 Text} \times \text{TXTpeso1 Text} + \text{TxT2 Text} \times \text{TXTpeso2 Text}}{\text{TXTpeso1 Text} + \text{TXTpeso2 Text}}$$

2 0

Show Warnings

Nota1*Peso1 + Nota2*Peso2
 (Peso1 + Peso2)

08 – Ferramenta Comparar texto

Media_com_Pesos2 Screen1 Add Screen ... Remove Screen Publish to Gallery Designer Blocks

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text**
 - Lists
 - Dictionaries
 - Colors
 - Variables
 - Procedures
- Screen1
 - TituloApp
 - OrganizaçãoHorizontal1
 - OrganizaçãoVertical1
 - Legenda1
 - TxT1
 - Legenda2

Viewer

when BtnMedia Click

do

if TxT1 Text =

then set LBLmsg Text to "Favor Preencher Nota 1"

else if TxT2 Text =

then set LBLmsg Text to "Favor Preencher Nota 2"

else set LBLmedia Text to $\frac{(TxT1 \text{ Text} \times TXTpeso1 \text{ Text}) + (TxT2 \text{ Text} \times TXTpeso2 \text{ Text})}{TxTpeso1 \text{ Text} + TxTpeso2 \text{ Text}}$

if compare texts BtnMedia Text > "6" or compare texts BtnMedia Text = "6"

then set LBLmsg Text to "Parabéns, você passou!"

else set LBLmsg Text to "Volte Semestre que vem!"

compare texts

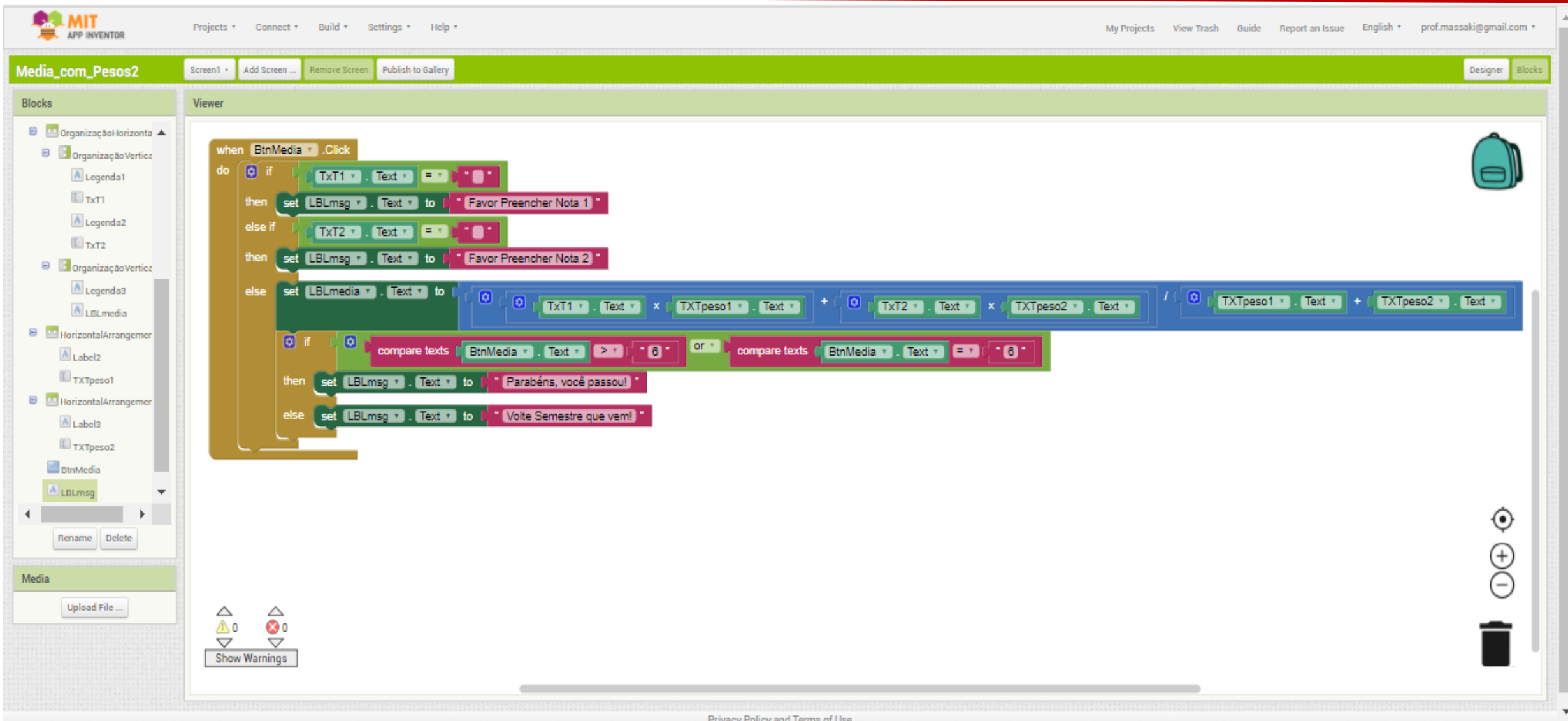
Tests whether text1 is lexicographically less than text2. if one text is the prefix of the other, the shorter text is considered smaller. Uppercase characters precede low

compare texts < **compare texts** > **compare texts** = **compare texts** ≠ **compare texts** >

Media

Upload File ...

09 – Verdadeiro e Falso da Comparação



The screenshot shows the MIT App Inventor web interface. The project is named "Media_com_Pesos2". The left sidebar contains a "Blocks" palette with various UI components like "OrganizaçaoHorizontal", "OrganizaçaoVertical", "Legenda1", "TxT1", "Legenda2", "TxT2", "Legenda3", "LBLmedia", "HorizontalArranger", "Label2", "TXTPeso1", "Label3", "TXTPeso2", "BtnMedia", and "LBLmsg". The main workspace shows a logic block for the "when BtnMedia.Click" event. The logic is as follows:

```
when BtnMedia.Click
do
  if TxT1.Text == [ ]
  then set LBLmsg.Text to "Favor Preencher Nota 1"
  else if TxT2.Text == [ ]
  then set LBLmsg.Text to "Favor Preencher Nota 2"
  else
    set LBLmedia.Text to (TxT1.Text * TXTPeso1.Text + TxT2.Text * TXTPeso2.Text) / (TXTPeso1.Text + TXTPeso2.Text)
    if compare texts BtnMedia.Text > "0" or compare texts BtnMedia.Text == "0"
    then set LBLmsg.Text to "Parabéns, você passou!"
    else set LBLmsg.Text to "Volte Semestre que vem!"
```

The bottom of the interface shows a "Show Warnings" button and a "Privacy Policy and Terms of Use" link.

10 – Agora é só testar seu app

The screenshot shows the MIT App Inventor web interface. At the top, there's a navigation bar with 'Projects', 'Connect', 'Build', 'Settings', and 'Help'. On the right, it says 'My Projects', 'View Trash', 'Guide', 'Report an Issue', 'English', and a user email 'prof.massaki@gmail.com'. Below this, the project name 'Media_com_Pesos2' is displayed, along with buttons for 'Screen1', 'Add Screen ...', 'Remove Screen', and 'Publish to Gallery'. On the far right of this bar are 'Designer' and 'Blocks' tabs.

The left sidebar contains a 'Blocks' palette with categories like 'OrganizaçãoHorizontal', 'OrganizaçãoVertical', 'HorizontalArrangement', and 'HorizontalArrangement'. The main workspace is divided into a 'Viewer' area on the left and a 'Scratch-style' block editor on the right. The 'Viewer' area shows a preview of the app with a button labeled 'BtnMedia' and a text label 'LBLmsg'. The 'Scratch-style' block editor shows a logic script: a 'when BtnMedia .Click' event triggers a 'do' loop. Inside the loop, there's an 'if' statement with three branches: 'TxT1 .Text' leads to 'set LBLmsg .Text', 'TxT2 .Text' leads to 'set LBLmsg .Text', and 'else' leads to 'set LBLmedia .Text'. Below this, there's a 'compare' block with 'TxT2 .Text' and 'TXTpeso2 .Text' connected by a '+' sign. Another 'compare texts' block follows, with 'BtnMedia .Text' and '"6"' connected by an '=' sign.

A 'Connect to Companion' dialog box is open in the center. It has a green header and contains the text: 'Launch the MIT AI2 Companion on your device and then scan the barcode or type in the code to connect for live testing of your app. [Need help finding the Companion App?](#)'. Below the text is a QR code and the code 'fhdjbd'. At the bottom of the dialog is a 'Cancel' button.

❖ *Beginner Tutorials*

<http://appinventor.mit.edu/explore/ai2/beginner-videos>

Dicas de App Inventor (Mateus Queiroz)

<https://www.canva.com/design/DAEnIU7nJEQ/ymLwoqAN8AKN10NScSMEGA/edit>

The MIT App Inventor Library: Documentation & Support

<http://appinventor.mit.edu/explore/library>

Introdução à interface (Aula 01) - APP Inventor 2

<https://www.youtube.com/watch?v=fQZ0Xb09GrY&list=PL1F1BSB8N7c9Y7N6pkTrUHNltnJJ7oGsq&index=7>

MIT App Inventor: Aula 3 - Entrada de dados

<https://www.youtube.com/watch?v=ZX2gT-lfBU&list=PL1F1BSB8N7c9Y7N6pkTrUHNltnJJ7oGsq&index=10>