

Oficina de Computação

Desenvolvimento de Aplicativos para
Dispositivos Móveis





Bem-Vindas!!!

Programação de Celulares:
Não é Mágica,
é Ciência!

Hoje você deixará de ser um mero **usuário** de aplicativos para se tornar um **desenvolvedor de aplicativos!**

“Ixi, é difícil...”

“É coisa de Nerd...”

“Só profissionais sabem...”

“Só quando eu for adulto...”



Brincadeira de Criança...



26/05/2015 – G1:

Alagoano de 14 anos cria aplicativo e fatura cerca de R\$ 100 mil por mês



03/05/2013 – O Globo:

Menino de 12 anos cria aplicativo de educação e vira sucesso na internet



19/10/2013 – Super Interessante:

Menino de 8 anos cria aplicativo para incentivar alimentação saudável



E SE TUDO ESTIVER
ERRADO...?

O que vamos fazer hoje?

Vamos criar um aplicativo capaz de prever o futuro!!! Ohhh...



O que vamos fazer hoje?



Preparem-se!

Pois vamos começar...

Nossas ferramentas...

MIT App Inventor 2

Uma plataforma web para desenvolvimento de aplicativos para dispositivos **Android**

ai2.appinventor.mit.edu

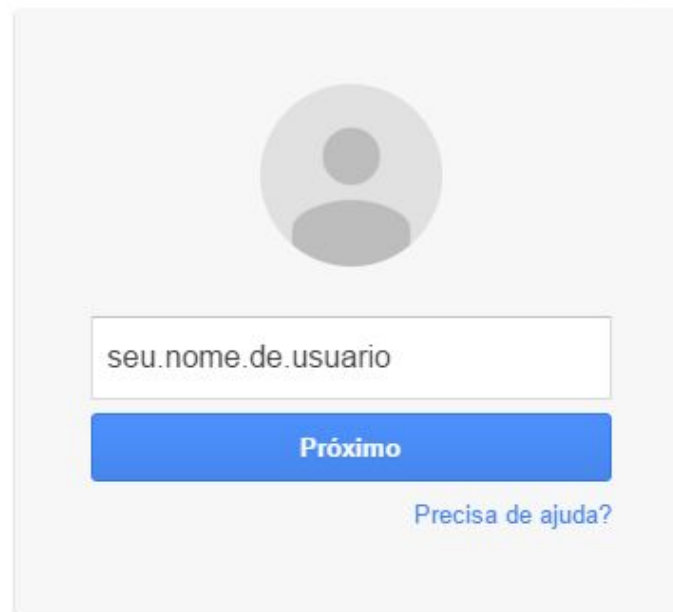


Minha conta do Google?



Apenas uma conta. Tudo o que o Google oferece.

Fazer login usando sua Conta do Google



A simulated login form for a Google account. It features a grey circular placeholder for a profile picture at the top center. Below the picture is a white text input field containing the placeholder text "seu.nome.de.usuario". Underneath the input field is a prominent blue button with the white text "Próximo". To the right of the button, the text "Precisa de ajuda?" is displayed in a smaller, blue font.

[Criar uma conta](#)

Uma Conta do Google para tudo o que o Google oferece



Permissão para acesso...



The application **MIT ApplInventor Version 2** is requesting permission to access your Google Account.

Please select an account that you would like to use.

seu.nome.de.usuario@gmail.com

Google is not affiliated with the contents of **MIT ApplInventor Version 2** or its owners. If you sign in, Google will share your email address with **MIT ApplInventor Version 2** but not your password or any other personal information.

Allow

No thanks

[Sign in to another account](#)

Remember this approval for the next 30 days

Criando um projeto...

The image shows a screenshot of the App Inventor web interface. At the top, there is a green navigation bar with three buttons: "Start new project", "Delete Project", and "Publish to Gallery". Below this is a section titled "My Projects" with a sub-header "Name". A modal dialog box is open in the foreground, titled "Create new App Inventor project". Inside the dialog, there is a label "Project name:" followed by a text input field containing the text "aluno1_aluno2_2701". At the bottom of the dialog, there are two buttons: "Cancel" and "OK".

Start new project Delete Project Publish to Gallery

My Projects

Name

Create new App Inventor project

Project name:

Cancel OK

Conhecendo a
plataforma...

Área de Designer

The image shows the LEGO MINDSTORMS Designer software interface, which is used for creating mobile applications. The interface is divided into several main sections:

- Palette:** Located on the left, it contains various UI components categorized under "User Interface" (Layout, Media, Drawing and Animation, Sensors, Social, Storage, Connectivity) and "LEGO® MINDSTORMS®".
- Viewer:** The central area displays a preview of the mobile application. It shows a screen titled "Screen1" with a status bar at the top (9:48) and an Android navigation bar at the bottom. The screen content includes a label "Text for Label1" (highlighted with a yellow box), a text box, a checkbox with "Text for CheckBox1" and "add items..." below it, and a button with "Text for Button1".
- Components:** Located on the right, it lists the components currently on the screen: "Screen1", "Label1" (selected), "TextBox1", "CheckBox1", "Spinner1", and "Button1". Below the list are "Rename" and "Delete" buttons.
- Properties:** The rightmost section shows the properties for the selected "Label1" component. Properties include: BackgroundColor (None), FontBold (unchecked), FontItalic (unchecked), FontSize (14.0), FontTypeface (default), HasMargins (checked), Height (Automatic...), Width (Automatic...), Text (Text for Label1), TextAlignment (left), TextColor (Black), and Visible (checked).
- Media:** A section at the bottom right with an "Upload File ..." button.

Área de Blocks

The image shows a software interface for building blocks. It is divided into two main sections: 'Blocks' on the left and 'Viewer' on the right.

Blocks Panel:

- Built-in:**
 - Control (orange square)
 - Logic (green square)
 - Math (blue square)
 - Text (red square)
 - Lists (light blue square)
 - Colors (grey square)
 - Variables (orange square)
 - Procedures (purple square)
- Screen1 (light green square)
- Any component (text)

At the bottom of the 'Blocks' panel are two buttons: 'Rename' and 'Delete'.

Viewer Panel:

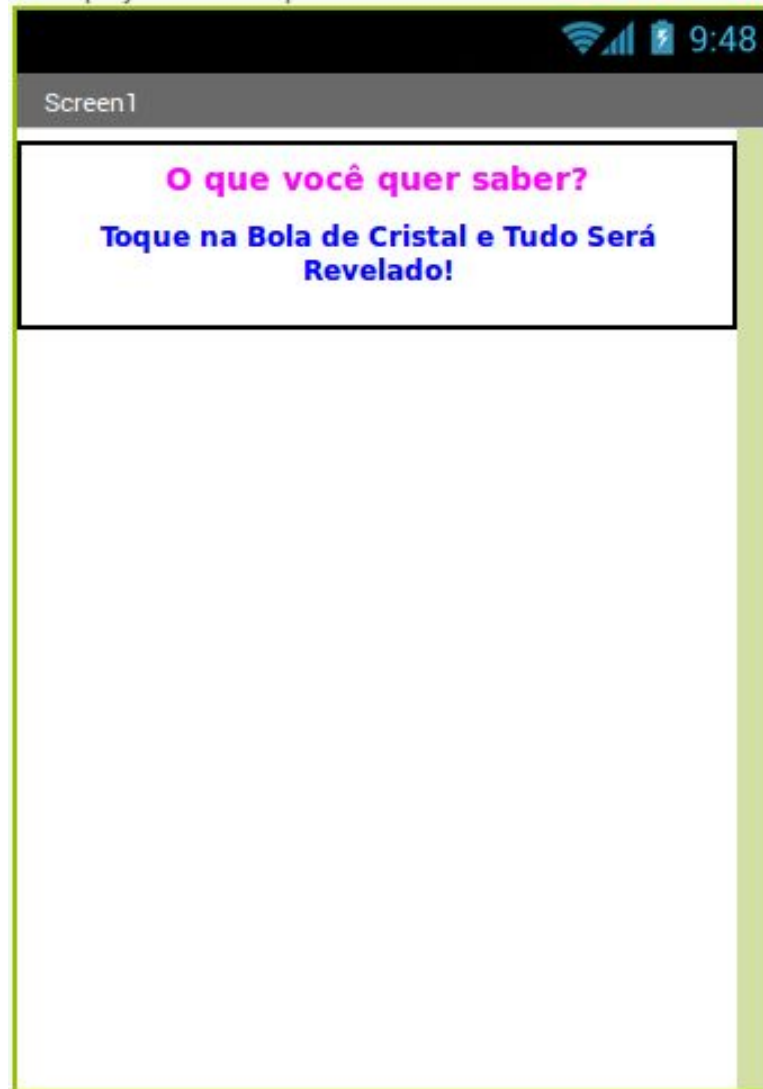
The 'Viewer' panel is a large white area for visualizing the blocks. It contains a green trash can icon in the top right corner and a green trash can icon in the bottom right corner. At the bottom left of the viewer, there are two warning icons (a yellow triangle and a red triangle) with the number '0' next to each, and a button labeled 'Show Warnings'.

Media Panel:

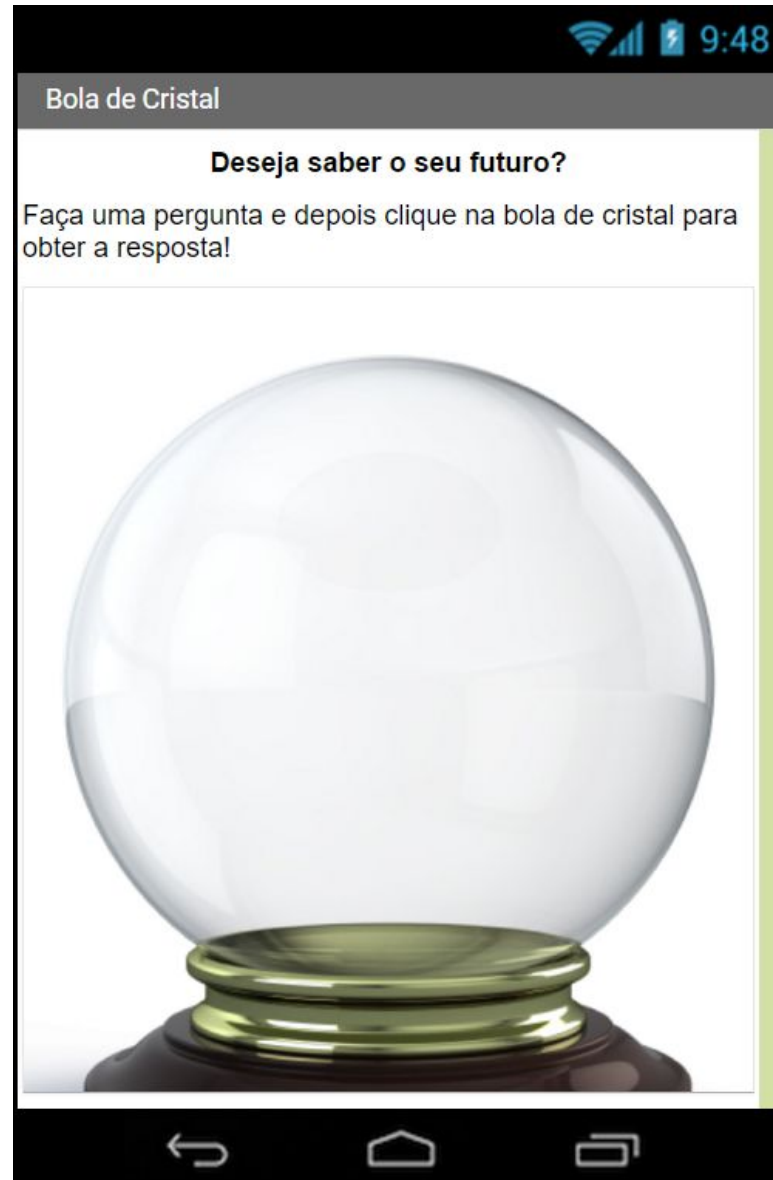
Below the 'Blocks' panel is a 'Media' section with a button labeled 'Upload File ...'.

Vamos começar
pelo Designer...

Passo 1 - Caixa de Texto



Passo 2 - Botão



Agora vamos
aos Blocks...

Passo 3

The screenshot displays the MIT App Inventor 2 Beta web interface. At the top, the MIT App Inventor logo and 'Beta' version are on the left, and navigation links for 'Projects', 'Connect', 'Build', and 'Help' are in the center. On the right, there are links for 'My Projects', 'Gallery', 'Guide', and 'Report an Issue'. Below the navigation bar, a green header bar shows the project name 'teste' and buttons for 'Screen1', 'Add Screen ...', and 'Remove Screen'. The main workspace is divided into two panels: 'Blocks' on the left and 'Viewer' on the right. The 'Blocks' panel shows a tree view with 'Built-in' categories (Control, Logic, Math, Text, Lists, Colors, Variables, Procedures) and a 'Screen1' category containing a 'Bola_de_Cristal' component. The 'Viewer' panel shows a list of event blocks for 'Bola_de_Cristal':

- when Bola_de_Cristal .Click
- do
- when Bola_de_Cristal .GotFocus
- do
- when Bola_de_Cristal .LongClick
- do
- when Bola_de_Cristal .LostFocus
- do
- when Bola_de_Cristal .TouchDown
- do
- when Bola_de_Cristal .TouchUp

The 'do' blocks are currently empty. A single 'when Bola_de_Cristal .Click' block is shown being dragged from the 'Blocks' panel into the 'Viewer' panel.

Passo 4

The screenshot displays the MIT App Inventor 2 Beta web interface. At the top, the navigation bar includes the MIT App Inventor logo, the text "MIT App Inventor 2 Beta", and menu items for "Projects", "Connect", "Build", and "Help". On the right side of the navigation bar are links for "My Projects", "Gallery", "Guide", "Report an Issue", and "English".

Below the navigation bar is a green header bar with the project name "teste" on the left, a dropdown menu for "Screen1", and buttons for "Add Screen ..." and "Remove Screen".

The main workspace is divided into two panels: "Blocks" on the left and "Viewer" on the right.

The "Blocks" panel shows a tree view of components. Under "Built-in", there are categories for Control, Logic, Math, Text, Lists, Colors, Variables, and Procedures. Under "Screen1", there is a "VerticalArrangement1" component containing a "Bola_de_Cristal" component. The "Any component" category is also visible.

The "Viewer" panel shows a sequence of code blocks for the "Bola_de_Cristal" component:

- set Bola_de_Cristal . Height to
- set Bola_de_Cristal . HeightPercent to
- Bola_de_Cristal . Image
- set Bola_de_Cristal . Image to
- Bola_de_Cristal . ShowFeedback
- set Bola_de_Cristal . ShowFeedback to
- Bola_de_Cristal . Text
- set Bola_de_Cristal . Text to
- Bola_de_Cristal . TextColor
- set Bola_de_Cristal . TextColor to

A yellow highlight is placed on the "set Bola_de_Cristal . Text to" block in the sequence. To the right of the "Viewer" panel, a separate code block is shown, representing a click event handler:

```
when Bola_de_Cristal . Click  
do set Bola_de_Cristal . Text to
```

Sound1

Components

- [-] Screen1
 - [A] Label1
 - [A] Label2
 - [Button] Button1
 - [Speaker] Sound1

Rename Delete

Properties

Sound1

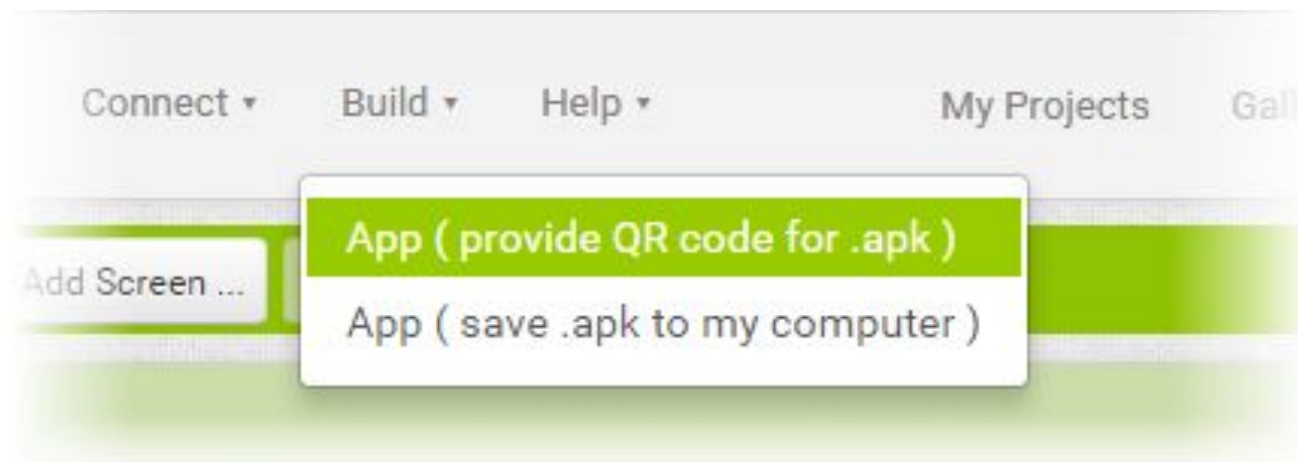
Source

MagicWandNoise.mp3...

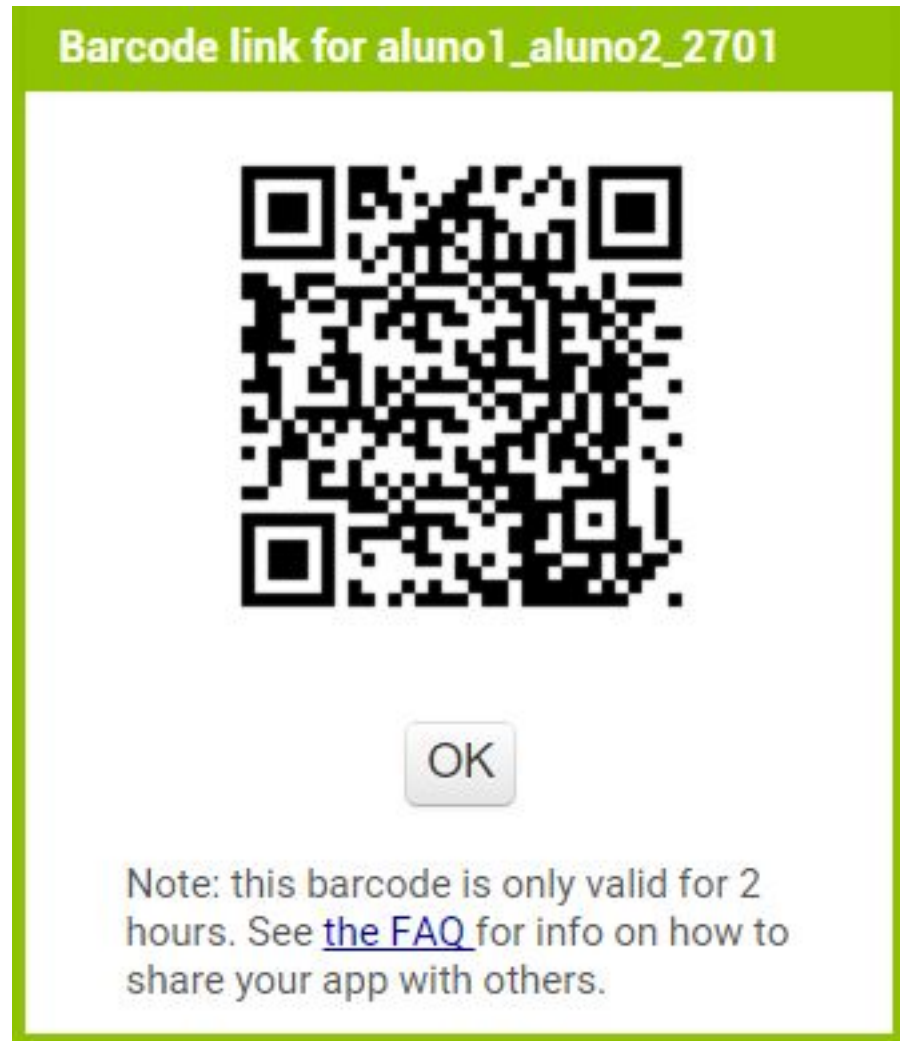
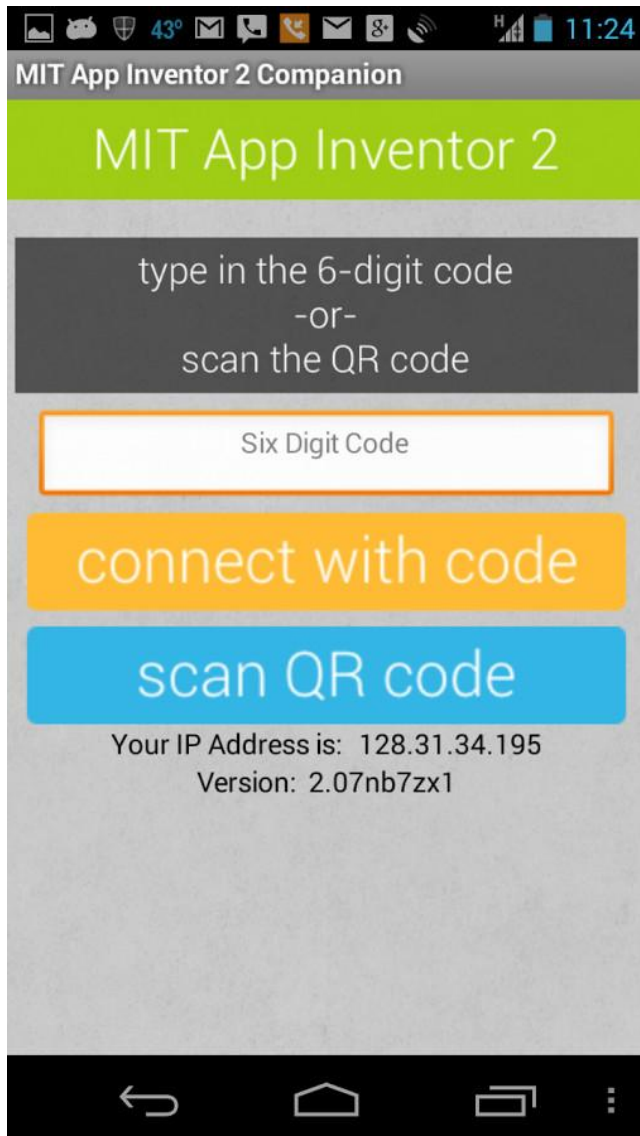
Vamos testar?

Como testar?

Primeiro, acesse o **Google Play** e instale o aplicativo **MIT AI2 Companion**. Depois...



Como testar?

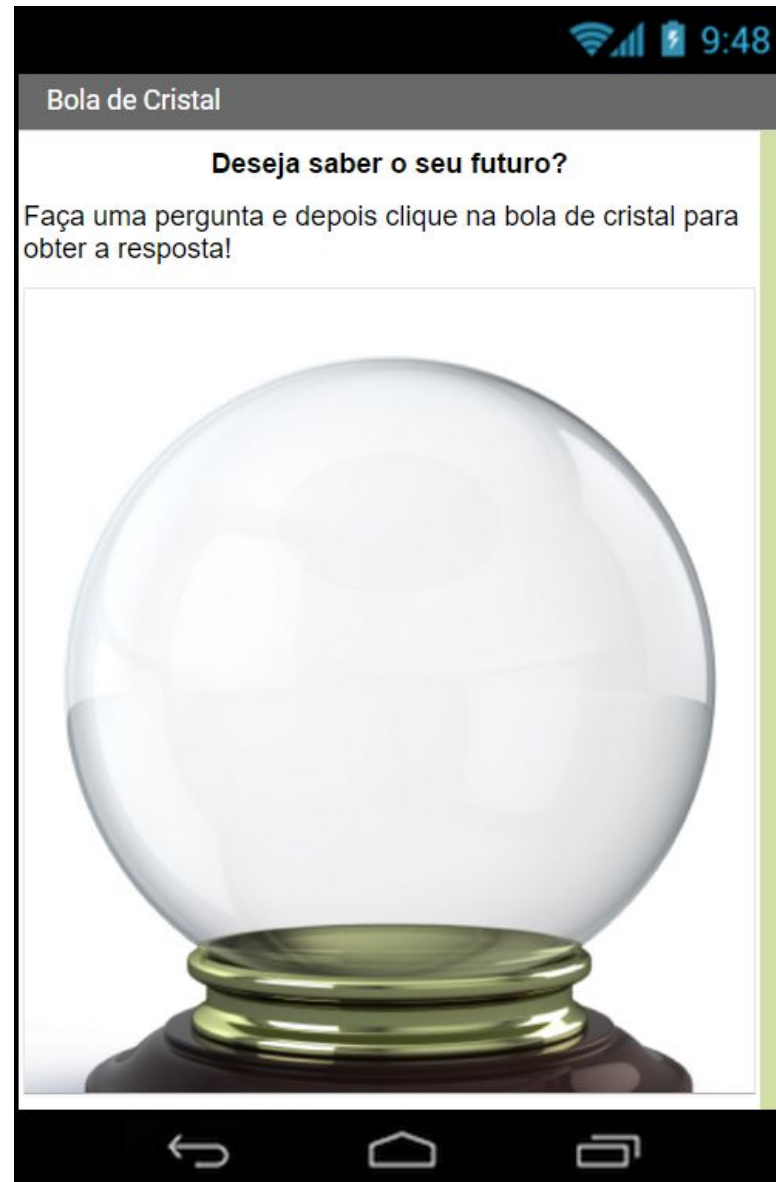


Vamos
melhorar?

Passo 5



Designer pronto!



Chegou a hora do
Grande Desafio!

Você está sendo desafiado...

Fazer a resposta aparecer quando se chacoalha o celular!!!

Mudar o design do aplicativo!

Salvem seus projetos!

