Password Purr Tutorial

Summary

Many people turn to their pets when they get stressed for comfort. In this tutorial, you'll create a de-stressing app that allows people to make a cat purr. In addition, you'll learn how to add password protection so that the cat isn't accessible to everyone. The skills learned in this tutorial include handling basic block-coding interactivity, media, and multiple screens.



Setting Up App Inventor

If you need help getting started and set up with App Inventor, please visit our <u>Setting Up</u> <u>App Inventor page</u>.

Neo Interface

- We'll be doing this project in the new App Inventor interface, Neo. This will make App Inventor look more modern.
- To switch to the Neo interface, go to your Projects space.
- On the top menu bar, click on "Settings" > "User Interface Settings"

Projects New project New Folder	Move	Move	To Trash	User Interfa	ce Settings	ublish to Gallery
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Name						
HelloPurrStarter						
Chat_App						
RL_TametheDog_Starter						
translate_tutorial						
FakeVoices_Starter						
FindTheGold_MS_VTemplate						
MyPiano_template_MS						
myToDoList_Starter						
FakeVoices_App						
TourGuide_template						
SoundLibrary_Starter						
MyPiano_Final						

• Click on the "Neo" interface, and click "OK"

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Import Project Template

- First, we have to import the starter file needed for this project.
- To do this, go to the cloud icon in the top left bar.

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FakeVoices_App		Oct 16, 2024, 9:24:28 AM	Oct 16, 2024, 3:25:18 PM
FakeVoices_Starter		Oct 16, 2024, 9:13:58 AM	Oct 16, 2024, 9:20:48 AM
Rt_TarrietheDog_Starter		Sep 18, 2024, 10:33:36 PM	Oct 15, 2024, 5:56:53 PM
TourGuide_template		Sep 30, 2024, 9:06:49 PM	Oct 15, 2024, 5:56:44 PM
HelloPurrStorter		Oct 6, 2024, 8:57:27 PM	Oct 15, 2024, 5:55:44 PM
rnyToDoList_Storter		Oct 8, 2024, 12:22:38 PM	Oct 15, 2024, 5:48:31 PM
SoundLibrary_Starter		Oct 8, 2024, 12:36:06 AM	Oct 8, 2024, 2:51:42 AM
translate_tutorial		Oct 7, 2024, 11:40:05 PM	Oct 8, 2024, 12:11:52 AM
MyPiano_Final		Oct 2, 2024, 3:45:45 PM	Oct 6, 2024, 8:25:54 PM
MyPiano_template_MS		Sep 29, 2024, 5:49:57 PM	Oct 2, 2024, 3:47:06 PM
FindTheOold_MS_VTemplate		Sep 29, 2024, 6:38:07 PM	Sep 30, 2024, 9:03:35 PM
Facemesh_StarterProject		Sep 23, 2024, 9:45:01 PM	Sep 29, 2024, 6:01:42 PM

• Click on the template titled "HelloPurrStarter," and click "OK"



Password Screen

- Now that we have our project open, we need to add some components.
- We will first create our password screen.
- Click into the "User Interface" on the Components palette, and drag a "Label."



• Similarly, drag and drop a "PasswordTextBox" and a "Button" component for submission.

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ListView					
A Notifier				I	
. PasswordTextBox	8				
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- Let's make everything look better.
- Center all the elements by clicking the "Screen1" component, and selecting "AlignHorizontal" >> "Center: 3"

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- Center the items vertically with "AlignVertical" too.
- Now click on the "Label1" component, and change its "Text" property to "Enter Your Password"

	Text for Button 1	
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• Increase the "FontSize" property of the text to 36.

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Text for Button1	HTMLFormat [®] HasMargins [®] C Rename Delete Automato

• Now click on the "Button1" component, and change its "Text" property to "Submit." Increase font size if desired.

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Cat Screen

- Now we will work on the screen displaying the cat..
- Add a new screen by clicking on the "+" button on the top bar next to Screen1.

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- Click "OK"
- We want the cat to be clickable, so it will be a button. Drag a button from the components palette.

- Click on the "Image" property on the right bar, and select "kitty.png"
- Erase the "Text" field in the button.



- From the components palette, drag in a label.
- Change the label's "Text" property to "Pet the Cat!"



• Increase the label's "Font" property to 36.

• Center Screen2 horizontally and vertically.



- Lastly, from the "Media" Components on the left, drag a "Sound" component.
- Set the Sound's "Source" property to "meow.mp3."

HelloPurrStarter	
Camcorder	0
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• Player	۲
 Sound 	
SoundRecorder	Ŷ
SpeechRecognizer	1
TextToSpeech	۲
才 A Translator	Ŷ
VideoPlayer	1
Drawing and Animation	
Maps	
Charts	

Block Code - Screen1

- Now we are ready to use block coding to give functionality to our components in the user interface! We'll be setting up the password protection.
- Click on the block editor, and switch to Screen1



- When the submit button is clicked, we want to check whether the text input is equal to the password. If so, we switch screens.
- Click on the "Button1" drawer and Drag the "When Button1.Click" event handler block.



- From the Control drawer, drag an "If...then...else" block.
- From the Logic drawer, drag in an "=" comparator block.



• Drag in appropriate blocks from the "PasswordTextBox1" drawer and "Text" drawer to compare the password text against any phrase you want, though it is advised to keep it simple.





- If the password is correct, switch to Screen2. Click into the "Control" drawer again and scroll all the way down to find the "open another screen" block.
- Make sure to change the input to "Screen2."
- If the password is incorrect, reset the password text box to blank.

+ HelloPurrStarter	Screens: Screen + -	S Designer Blocks
 Built-in Control Logic Math Text Lists Dictionaries Colors Variables Procedures Screenl Labell ProsswordTextBoxl Rename Delete Media 	do result evaluate but ignore result open another screen screenName startValue get start value close screen close screen close screen with value result close screen with value result	Button1 .Click if PasswordTextBox1 .Text = : "lovecats" then open another soreen screenName Screen2 else set PasswordTextBox1 .Text to """ else set PasswordTextBox1 .Text to """ ••••••••••••••••••••••••••••••••••
dd meow mp3	Privacy Policy and Terms	s of Use

Block Code - Screen2

- Now we're ready to code the cat!
- Switch to Screen2.
- Click on the "Blocks" editor in the top right corner.
- Drag the "When Button1.Click do" yellow event handler block from the left.





• Now the cat will meow when you tap or click on it.

Testing Your Code - AI Companion

- Now it's time to test your code on a mobile device!
- On your laptop/computer, make sure to switch to Screen1 first.
- Make sure if you have App Inventor installed on your mobile device. If you don't have App Inventor setup, please visit our <u>Setting Up App Inventor page</u>.
- To connect your mobile device, click the "Connect" button in the top center >> "Al Companion"



• A QR Code should pop up



- Open up the App Inventor app on your mobile device and click "scan QR code."
- Don't scan the QR code above—it's just an example. Scan the QR code on your own laptop/computer with your mobile device.
- The password screen should show up on your mobile device.
- Test it out!
- Ideally, you should be able to enter a password, then get taken to a picture of a cat. If you tap on the cat, it should purr!

Expand Your App

- To extend the project further, here are some suggestions of what you could do:
 - Make the app look nicer! Play around with font properties, colors, and positioning. How professional can you make it look?
 - How about different animals? Can you make the app switch to a random screen, each one with a different animal and sound, each time the password is inputted? (Hint: Store the screens into a list, and use the "pick a random item" list block.)

- Have a counter that keeps track of the number of incorrect password attempts, and stops the user if there are too many attempts.
- What other ideas do you have? Try them out!