NoteTaker

NoteTaker is an app that allows you to enter notes and see your previously entered notes. It is an example of an app with dynamic, user-generated data. The data is persistent, meaning if you close the app and reopen it, the notes will still be there. The data is not shared amongst apps or users as the notes are stored on the device, not on the web.

This lesson shows three iterations, each of them slightly more complex:

Iteration 1. The data is not persistent (saved in the database).
Iteration 2. The data is stored in a TinyDB database.
Iteration 3. The notes are timestamped.

Check out the app

The app lets you enter notes in the top text box and then lists them in reverse-chronological order in the blue notes area.
Create the user interface for the NoteTaker app

- EntryTextBox, set Hint to "please enter a note"
- SubmitButton with image
- NotesLabel, this is where the list will be displayed.
- Clock is used to timestamp notes
- TinyDB is found in the Storage drawer. It is used to store data persistently.
Create a global variable 'notes' to store the notes the user enters. Initialize it to 'create empty list' because when the app starts, there aren't any notes yet. Program the SubmitButton.Click so that it adds what the user has entered in the text box to the list, and displays the updated list. Create a procedure 'listToText' which takes a list as a parameter and converts it into a text object with multiple lines.
Iteration 2: Add TinyDB persistence so the notes are still there when the app is closed and reopened.

At the bottom of SubmitButton.Click, add a call to TinyDB1.StoreValue to store the updated list of notes. When the app is reopened, use TinyDB.GetValue to bring the notes back in from the database into the variable 'notes'.
Iteration 3. Add a timestamp to each note-- the list becomes a list of lists.

The notes list is now a list of lists. Each 'note' is itself a two-item list with the first item being the text of the note and the second item being the timestamp for the note. To test, you may need to clear out the database of the MIT App Companion to get rid of the data that was formatted in a different say (iteration 2). To do this, on your device, go to Settings | Applications, choose MIT AI2 Companion, and clear data.