

# EG-M42 Software for Smartphone: **List Handling with TinyDB**

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# Outline

- Phonebook based on TinyDB
- Contacts based on TinyDB



# Phonebook based on TinyDB: Overview of TinyDB

- Data are stored as a table of *tag-value* pair.

- | Tag        | Value       |
|------------|-------------|
| Joseph Kim | 01792602024 |

- Two main blocks for DB operations

- GetValue

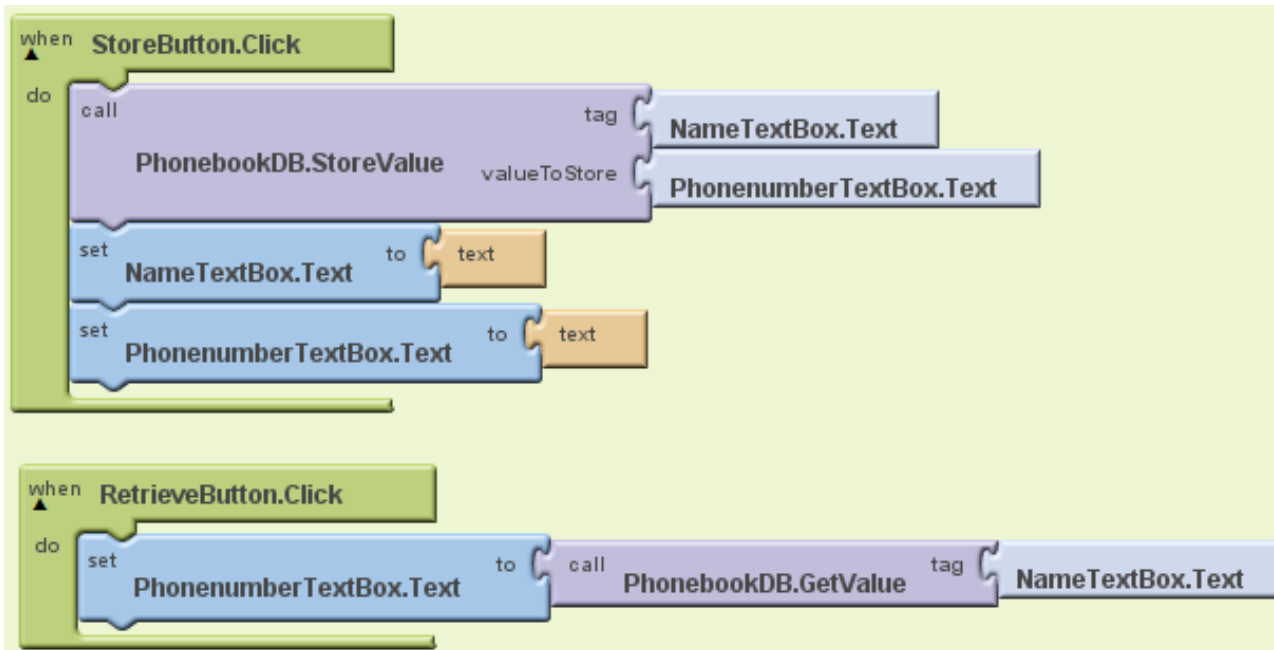
- Input: tag
- Output: value

- StoreValue

- Input: tag, valueToStore
- Output: none



# Phonebook based on TinyDB



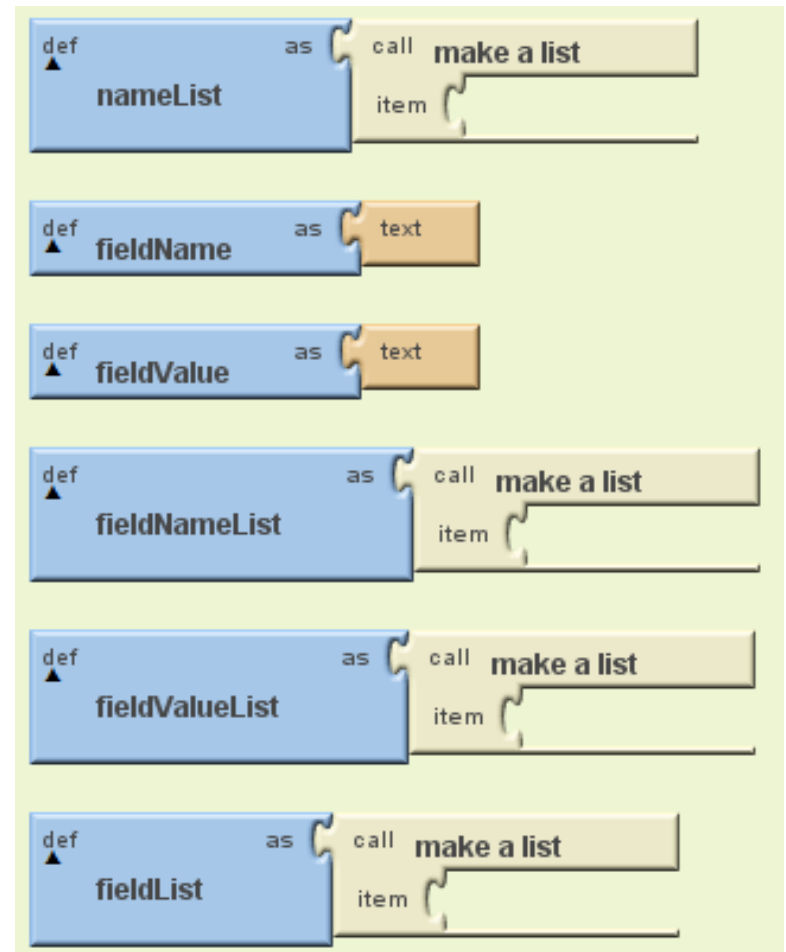
# Contacts based on TinyDB: Changes

- Now additional fields, e.g., email address and Skype ID, can be stored as well.
- We will maintain *nameList* for names already in the DB.
  - Before storing a new field name-field value pair, a given name is checked against the *nameList*.
    - If it is already in the list:
      - Retrieve the corresponding data from the DB (i.e., list of (field name, field value)).
      - Augment the list with a given pair.
      - Store the list (as a value) with the name (as a tag).
    - Otherwise:
      - Add the name to the *nameList*.
      - Store the pair with the name.



# Variables

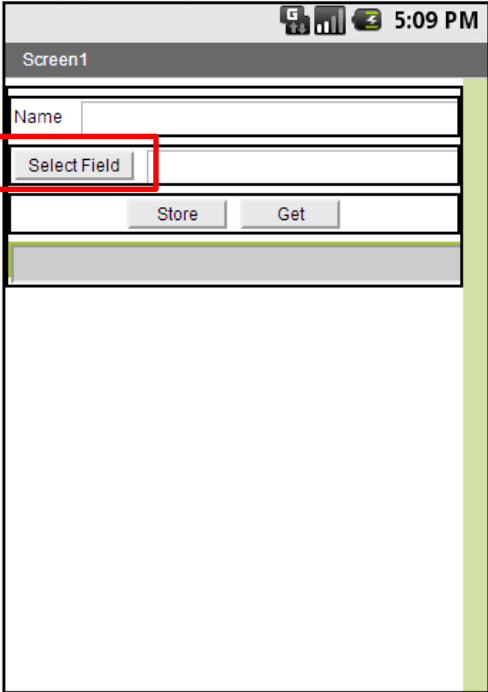
- *nameList*: Names already in DB
- *fieldList*: (*fieldNameList*, *fieldValueList*)
  - *fieldNameList*: List of field names (e.g., phone, email, skype)
  - *fieldValueList*: List of field values



# Field Name Selection

Screen1

Display hidden components in Viewer



Screen1

Name

Select Field

Store Get

ResultsText

ContactTinyDB

Non-visible components

- ContactTinyDB

Screen1

- VerticalArrangement1
  - HorizontalArrangement1
    - NameLabel
    - NameTextBox
  - HorizontalArrangement2
    - FieldNameListPicker
    - FieldValueTextBox
  - HorizontalArrangement3
    - StoreButton
    - GetButton
  - ResultsText
- ContactTinyDB

Rename Delete

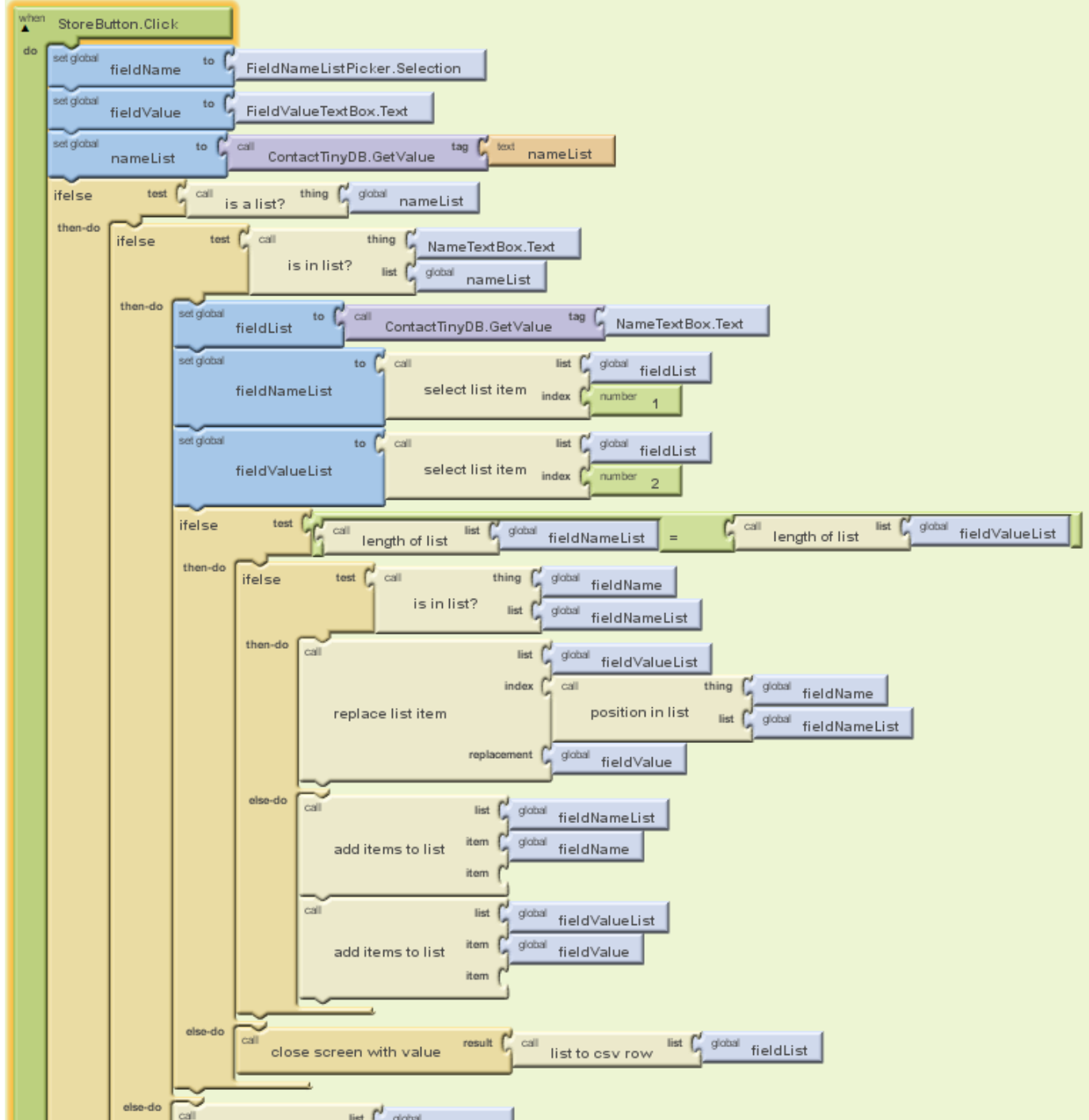
Media

Upload new...

```
when FieldNameListPicker.AfterPicking
do
  set global fieldName to FieldNameListPicker.Selection
  set FieldNameListPicker.Text to FieldNameListPicker.Selection
```

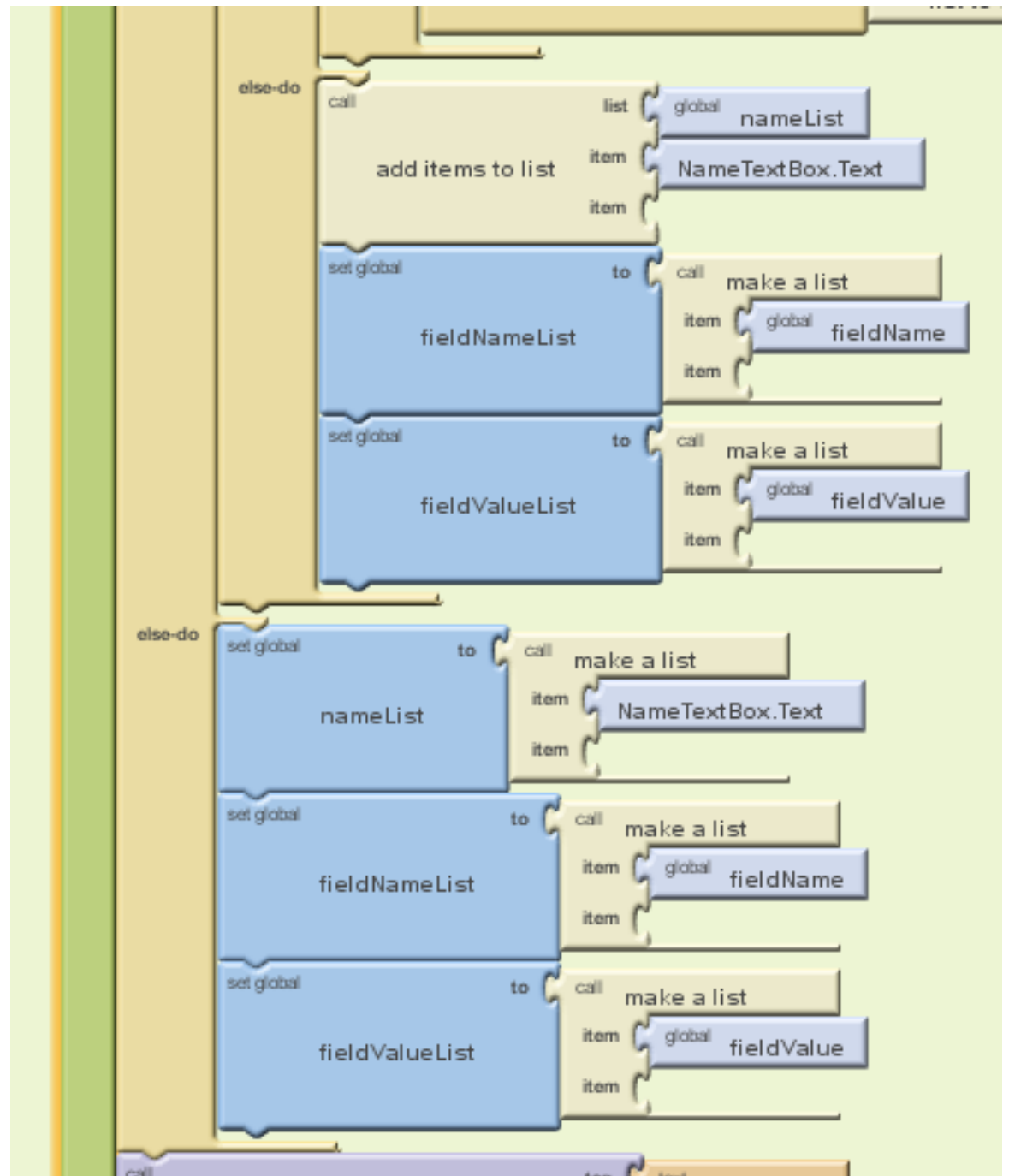


# Store: When Name is already in DB

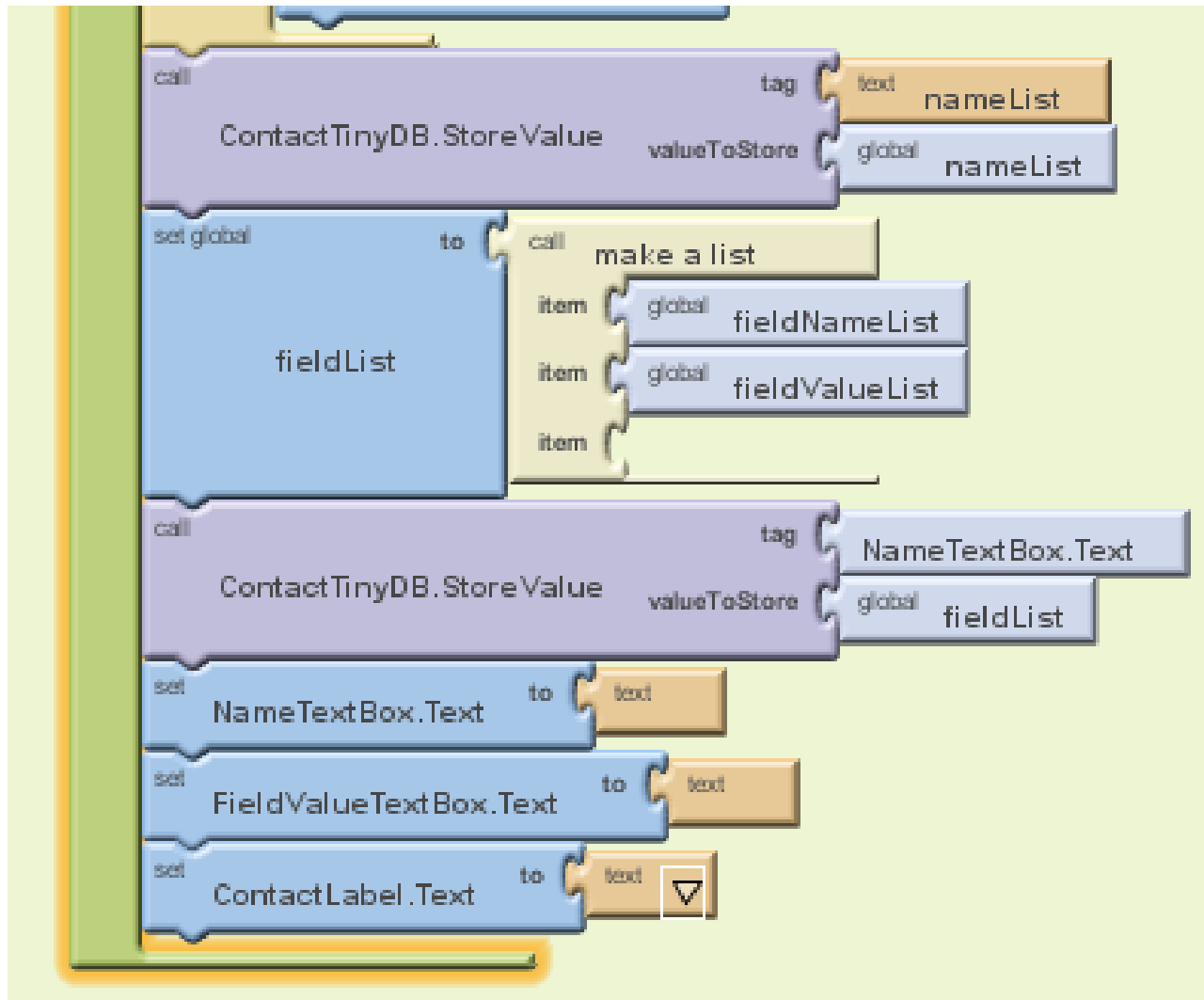




# Store: When Name is not in DB



# Store: Store Values to DB



# Get

