

# worLdUtil

## 1. Web based databases

In order to design a program, which is able to ask the records from a central space, first we need to prepare the database itself. The purpose of this tiny program is to create the database of the program called 'worLd'.



Picture1: Design

There will be several data stored by a web server and shared among the devices.

A TinyWebDB App Inventor component is needed which allows you to store data permanently on the web and shared it from there. It is very similar to TinyDB, however it stores data on the web, not on the device itself.

TinyWebDB has a SourceURL feature which can be adjusted to any App Inventor compatible web services. It is as much as saying that TinyWebDB can be adjusted to any websites which are especially created for using App Inventor and TinyWebDB. As the default setting data is stored on appinvtinywebdb.appspot.com website by TinyWebDB. However, this web based database is shared with App Inventor programmers, so it is recommended to use only for testing.

Own TinyWebDB service must be created for creative applications. (<https://appinventorapi.com/program-an-api-python/>)

For this app the following was created URL: <https://erasmuspals-157008.appspot.com/>

## 2. Blocks

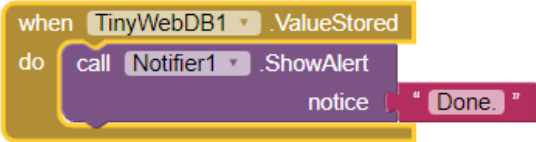
Storage and Downloading are the two main tasks of TinyWebDB. StoreValue stores a list on the internet on a given name.



```
call TinyWebDB1 .StoreValue
  tag "table"
  valueToStore get global list
```

Picture2: StoreValue

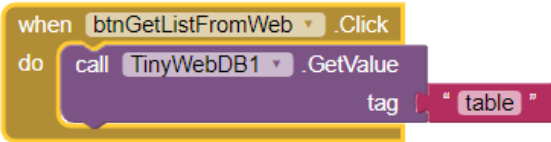
The ValueStored event demonstrates the success of this. "Done" is written in the example.



```
when TinyWebDB1 .ValueStored
do call Notifier1 .ShowAlert
  notice "Done."
```

Picture3: Checking the success of storage

GetValue event asks for the data but the list can be used only at the end, which is handled by GotValue event management. This will be called when the data actually received from the internet.



```
when btnGetListFromWeb .Click
do call TinyWebDB1 .GetValue
  tag "table"
```

Picture4: Start download

```

when TinyWebDB1 .GotValue
  tagFromWebDB valueFromWebDB
do
  set global list to get valueFromWebDB
  set global maxIndex to length of list list get global list
  set lblNumberOfItems .Text to get global maxIndex

```

Picture5: Instructions running at the end of download

(In case of download uploading the 'list' list with the data of valueFromWebDB and displaying the number of item on the screen.)

**Think about it:** Why is the record building like this? (picture\*url)

### 3. Source of the full program:

```

initialize global list to create empty list
initialize global maxIndex to 0

when Screen1 .Initialize
do
  set lblNumberOfItems .Visible to false
  set btnGetListFromWeb .Enabled to false

when TinyWebDB1 .ValueStored
do
  call Notifier1 .ShowAlert
  notice "Done."

when btnGetListFromWeb .Click
do
  call TinyWebDB1 .GetValue
  tag "table"

when TinyWebDB1 .GotValue
  tagFromWebDB valueFromWebDB
do
  set global list to get valueFromWebDB
  set global maxIndex to length of list list get global list
  set lblNumberOfItems .Visible to true
  set lblNumberOfItems .Text to get global maxIndex

```

```

when btnStoreListToWeb .Click
do
  add items to list list get global list
  item "dog"http://moricz.arrabonus.hu/erasmus/dog.jpg"
  item "deer"http://moricz.arrabonus.hu/erasmus/deer.jpg"
  item "cube"http://moricz.arrabonus.hu/erasmus/cube.gif"
  item "axe"http://moricz.arrabonus.hu/erasmus/axe.jpg"
  item "tree"http://moricz.arrabonus.hu/erasmus/tree.jpg"
  item "monkey"http://moricz.arrabonus.hu/erasmus/monkey..."
  item "brain"http://moricz.arrabonus.hu/erasmus/brain.jpg"
  item "wolf"http://moricz.arrabonus.hu/erasmus/wolf.jpg"
  item "camera"http://moricz.arrabonus.hu/erasmus/camera..."
  item "mouse"http://moricz.arrabonus.hu/erasmus/mouse.png"
  item "cupcake"http://moricz.arrabonus.hu/erasmus/cupca..."
  item "ghost"http://moricz.arrabonus.hu/erasmus/ghost.jpg"
  item "helicopter"http://moricz.arrabonus.hu/erasmus/he..."
  item "mushroom"http://moricz.arrabonus.hu/erasmus/mush..."
  item "owl"http://moricz.arrabonus.hu/erasmus/owl.gif"
  item "parrot"http://moricz.arrabonus.hu/erasmus/parrot..."
  item "postman"http://moricz.arrabonus.hu/erasmus/postm..."
  item "rose"http://moricz.arrabonus.hu/erasmus/rose.jpg"
  item "soldier"http://moricz.arrabonus.hu/erasmus/soldi..."
  item "turkey"http://moricz.arrabonus.hu/erasmus/turkey..."
  item "screwdriver"http://moricz.arrabonus.hu/erasmus/s..."
  item "mosquito"http://moricz.arrabonus.hu/erasmus/mosq..."
  item "fingerprint"http://moricz.arrabonus.hu/erasmus/f..."
  item "church"http://moricz.arrabonus.hu/erasmus/church..."
  item "archer"http://moricz.arrabonus.hu/erasmus/archer..."
  item "firefighter"http://moricz.arrabonus.hu/erasmus/f..."
  item "butterfly"http://moricz.arrabonus.hu/erasmus/but..."
  item "calculator"http://moricz.arrabonus.hu/erasmus/ca..."
  item "lobster"http://moricz.arrabonus.hu/erasmus/lobst..."
  item "photographer"http://moricz.arrabonus.hu/erasmus/..."

  call TinyWebDB1 .StoreValue
  tag "table"
  valueToStore get global list
  set btnGetListFromWeb .Enabled to true
  set btnStoreListToWeb .Enabled to false

```