

Creating a Custom TinyWebDB Service Using PHP

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TinyWebDB is an App Inventor component that allows you to store data persistently in a database on the web. Because the data is stored on the web instead of a particular phone, TinyWebDB can be used to facilitate communication between phones and apps (e.g., multi-player games).

By default, the TinyWebDB component stores data on a test service provided by App Inventor, <http://appinvtinywebdb.appspot.com/>. This service is helpful for testing, but it is shared by all App Inventor users, and it has a limit of 1000 entries. If you use it, your data will be overwritten eventually.

For most apps you write, you'll want to create a custom web service that isn't shared with other App Inventor apps and programmers. In the official tutorial <http://beta.appinventor.mit.edu/learn/reference/other/tinywebdb.html>, we've learnt how to create a custom TinyWebDB Service using Google App Engine. GAE is a good SaaS Cloud Computing Platform we can use. But when we want to create a high-traffic multi user application, the cost may be expensive.

To read forward, make sure you have basic knowledge of PHP, and MySQL. To create a Custom TinyWebDB Service, make sure you've pre-installed:

- PHP Runtime
- MySQL

Step 1: Initialize MySQL Database.

Step 2: Go to phpMyAdmin, click "SQL" on the Navigation Bar, and enter following code:

```
CREATE TABLE IF NOT EXISTS `test` (  
  `tag` varchar (32) NOT NULL,  
  `value` varchar (255) NOT NULL,  
  PRIMARY KEY (`tag`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

Press "Go" and wait till the execution finished successfully.

Step 3: Open index.php provided, in line 26 and 48,

```
$link=mysql_connect(SAE_MYSQL_HOST_M.':'.SAE_MYSQL_PORT,SAE_MYSQL_USER,SAE_MYSQL_PASS);// Connect to MySQL Database
```

- Replace SAE_MYSQL_HOST_M with your Main Database Host Name
- Replace SAE_MYSQL_PORT with your Database Connection Port
- Replace SAE_MYSQL_USER with your Database Username
- Replace SAE_MYSQL_PASS with your Database Password

Step 4: Still in index.php, in line 28 and 50:

```
mysql_select_db(SAE_MYSQL_DB,$link); // Connect to the Correct Database(May vary due to different platform)
```

- Replace SAE_MYSQL_DB with your Database Name

Step 5: Upload index.php to the destination server.

Step 6: After your server address, enter index.php to see if `["VALUE":"","[""]]` is displayed or not. If it is, CONGRATULATIONS! The server side configuration of TinyWebDB Service using PHP is finished.

Your App Inventor apps can store and retrieve data using your new service. Just do the following:

Step 7: Drag in a TinyWebDB component into the Component Designer.

Step 8: Modify the ServiceURL property from the default `http://appinvtinywebdb.appspot.com/` to `<YOUR WEB HOST>/index.php`

Step 9: Any StoreValue operations (blocks) will store data at your service, and any GetValue operations will retrieve from your service.

*To watch data changes, go to phpMyAdmin – (table) test.