TURKISH SIGN LANGUAGE

Organisational Structure of The App

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To whom it may concern

This document is aimed to programmists who want to join the project. We understand that first days in any team can be difficult and new members need time to adapt. This document will allow an easy and quickly transition to the project . We insist on you reading the "TSL Working Principle" before reading this document because it will allow you to see the overall picture of the project.

How the app is created

The app is created by using 3 web languages – HTML, CSS and Javascript. This allows us to edit the app right in the browser. To create an apk/ipa/exe file we use an online project called PhoneGap build. You can watch a short video about it here - https://www.youtube.com/watch?v=xYgUF1haNsA
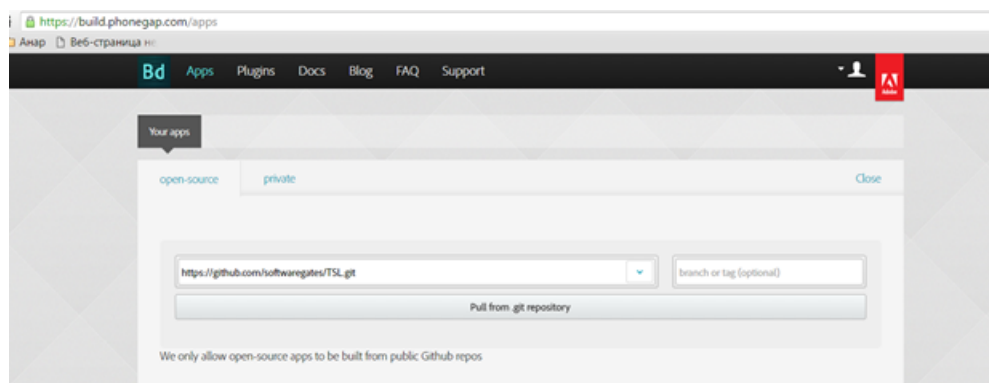

Figure 1. PhoneGap imports our project from the GitHub and creates a mobile app.

So basically, we build a web application which is then converted to the mobile one. Let's look at the folder structure of the project. Here we see 3 folders and 3 files.

Figure 2. Objects in the root folder of the project

- The first folder called info contains all necessary information about our project including this file. It has nothing to do with programming.
- res folder contains app icons and splash images which arise when the app is opened. You can explore it if you want but you are not really supposed to.
- www folder is the main folder of the project which you definitely need to explore because you will be mainly working with it. We will explore it in details on the following pages.
- The config file contains the data for the PhoneGap build it is already edited and most probably wouldn't need additional editions. But we strongly recommend for you to open and explore it because it will provide you with a deep understanding of the working principle of the project. Also, it can happen that you will be asked to make some changes to it. We will pay attention to the config file on the next pages.
- Package file contains a brief information aboutt the app to be used by PhoneGap. It is not very important and you are not required to pay attention to it.
- Readme doesn't require any additional comments.

How I mentioned above you will be editing app in the browser the only advice that we want to give is to resize the browser window to see how it will work on different mobile devices – smartphones, tablets or watches

WWW folder

Figure 2 demonstrates the hierarchy of the www folder. It is actually quite simple - index.html is the main file of the app. When a user opens the application for the first time he asked for his preferable language and afterwards directed either to the TurkishBranch folder or the EnglishBranch folder. You can check for the interface of the index.html in the "TSL Working Principle" document. When user will open the app for the second time he won't be asked to choose a language anymore and will be redirected automatically.
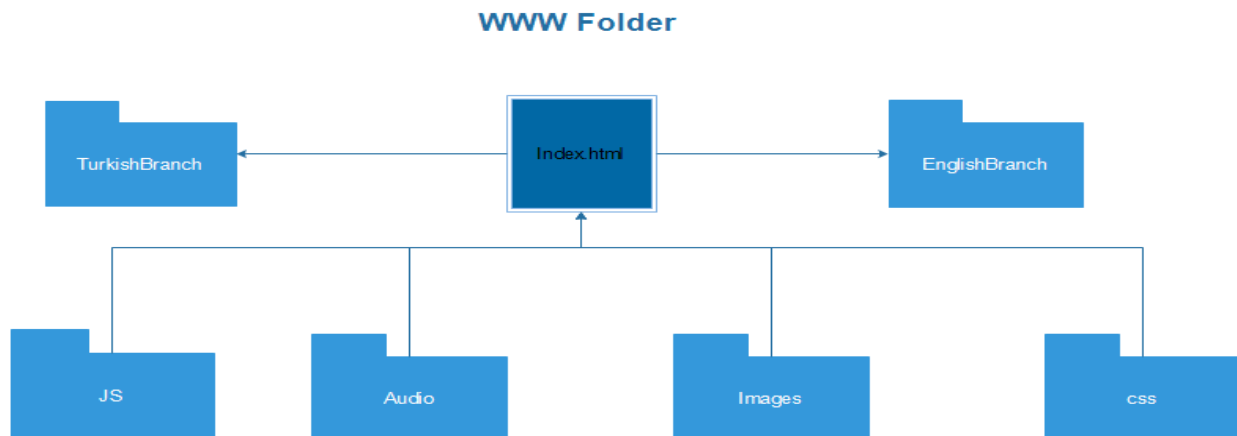
WWW Folder

Figure 2. The www folder

 However, the user will always be able to move to the language page (index.html) if required by using the navigation menu. A good way of thinking about the index.html is that index.html is just a transition page. Other four folder such as JS, Audio, Images and CSS include files that are either used by index.html or that are used by both TurkishBranch and EnglishBranch. For example, Jquery library in the JS file. Figure 3 demonstrates the structure of the EnglishBranch folder we don't focus on the Turkish one because it has a similar structure and once you get acquainted with an English one you will automatically learn the Turkish one.
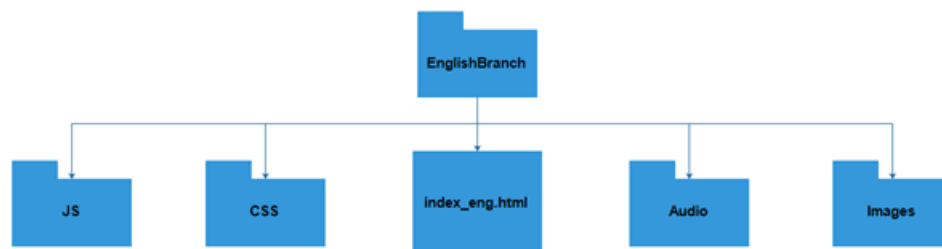

Figure 3. EnglishBranch folder

How we can see EnglishBranch folder has its own "index.html" called index_eng.html which is the core of the folder. The first time user will enter this page he will be asked his name which will be stored in the local storage. Another folder that one can pay attention to is Audio folder. It can sound strange that there is an audio folder in the app which teaches a sign language. But it actually makes sense in the EnglishBranch we will have users who can hear and just want to learn TSL and also want to know how a certain letter is pronounced in Turkish. So for these purposes we will use the Audio folder.

Config File

As we mentioned in the previous pages Config File is just a set instructions for PhoneGap build. We strongly recommend you to open the Config.xml while you are reading this chapter as it demonstrated in **Figure 4**, We also recommend to use the app called Brackets to edit the files, you can download it here - http://brackets.io/
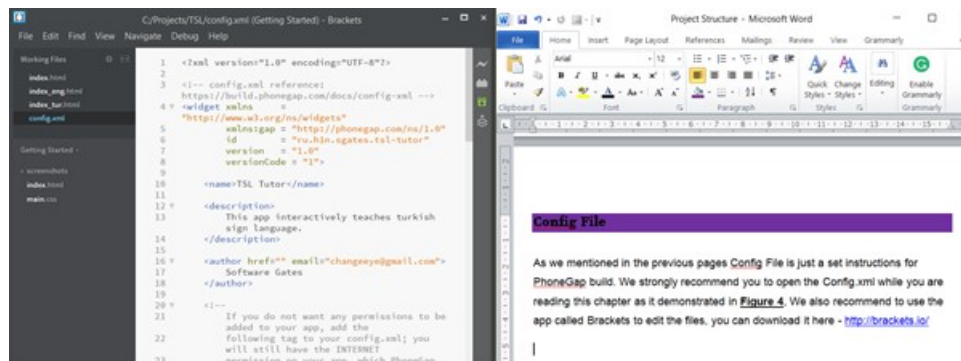

Figure 4. Good way of learning.

Let's first look at the most important properties. They are very obvious aren't they?

```
<widget xmlns     = "http://www.w3.org/ns/widgets"

    xmlns:gap = "http://phonegap.com/ns/1.0"

    id        = "ru.h1n.sgates.tsl-tutor" // This is an id of our app which is basically the reversed domain name

    version   = "1.0"

    versionCode = "1">


  <name>TSL Tutor</name>


  <description>
    This app interactively teaches turkish sign language.
  </description>


  <author href="http://sgates.h1n.ru/" email="head@sgates.h1n.ru">
    Software Gates
  </author>
```

Then we see **<preference>** tags they allow or don't allow certain functionality that comes with certain OS. You see how they work here - http://devgirl.org/files/config-app/

Then we have different plugins that give additional functionality to the app. More plugins can be found here - https://build.phonegap.com/plugins

Also, we have a set of icons and splash images for both Android and IOS. We don't recommend you to make changes to these tags they are already set.

At the bottom, we have **<allow-intent>** tags which give permission to the app to use sensitive functions of the mobile device. If you want to add or delete a certain permission discuss it with members before doing so.

Thank you for reading this document.