

Assignment 1: Single Activity Application

*This assignment must be done **individually**.*

Read *Section 1* for application requirements, *Section 2* for programming tasks and *Section 3* for submission guidelines.

1. Description

In this assignment, you will build a basic Android application “**Hello Japan**” – the Japanese alphabets for beginners. Objectives of this application is to help learners to master easily and quickly the two Japanese alphabets - Hiragana & Katakana.

For more information, Japanese has 3 alphabets namely, Hiragana (soft word board), Katakana (hard word board - for words borrowed from other languages) & Kanji (Chinese characters). Since this application targets to the beginners, we focus on only Hiragana and Katakana. For example:

Good morning: おはよう (Hiragana)

Chocolate: チョコレート (Katakana)

As can be seen from the *Figure 1* below, these 2 alphabets are actually exact the same in pronunciation, but different in writing (soft – hard).

Hiragana

あ	い	う	え	お
a	i	u	e	o
か	き	く	け	こ
ka	ki	ku	ke	ko
さ	し	す	せ	そ
sa	shi	su	se	so
た	ち	つ	て	と
ta	chi	tsu	te	to
な	に	ぬ	ね	の
na	ni	nu	ne	no
は	ひ	ふ	へ	ほ
ha	hi	fu	he	ho
ま	み	む	め	も
ma	mi	mu	me	mo
や		ゆ		よ
ya		yu		yo
ら	り	る	れ	ろ
ra	ri	ru	re	ro
わ				を
wa				wo
ん				
n				

Katakana

ア	イ	ウ	エ	オ
a	i	u	e	o
カ	キ	ク	ケ	コ
ka	ki	ku	ke	ko
サ	シ	ス	セ	ソ
sa	shi	su	se	so
タ	チ	ツ	テ	ト
ta	chi	tsu	te	to
ナ	ニ	ヌ	ネ	ノ
na	ni	nu	ne	no
ハ	ヒ	フ	ヘ	ホ
ha	hi	fu	he	ho
マ	ミ	ム	メ	モ
ma	mi	mu	me	mo
ヤ		ユ		ヨ
ya		yu		yo
ラ	リ	ル	レ	ロ
ra	ri	ru	re	ro
ワ				ヲ
wa				wo
ン				
n				

Figure 1: Hiragana & Katakana Alphabet

- **User Interface:**

Opening the application, **Hello Japan** will first display the table of Hiragana characters as described below:



← Title bar: **Hello Japan**

← Name of the alphabet: **Hiragana / Katakana**

← Table of characters:

- Each character is represented by a button
- User can scroll vertically if the space is not enough

← Switch buttons between the 2 tables of alphabets: in **small** size & have **fixed position** in the right bottom corner

Figure 2: Application UI

- **Functionalities:**

- **Switch between the 2 alphabets: Hiragana ↔ Katakana**

When user clicks on any switch button (labeled by named of the alphabets), the UI should be refreshed (with animation) to display the selected *name* and *table of characters*.

- **Pronounce a selected character**

When user clicks on any button corresponding to each character in the alphabets, the application should play the sound of “pronunciation” for that selected character. The system should stop pronouncing the previous selected character if user select a new one.

2. Programming tasks

- 1) Creating a project named “Hello Japan”, packagename = a1_Sid, where Sid is your student ID (the remaining keeps unchanged). For example, a student has ID 1801040001 then packagename must be named as a1_1801040001.

Important note: This application has **only 01 Activity**.

- 2) Download any required assets files & put those in project
 - **Characters:** can be cut from the image provided above
 - **Sounds:** can be downloaded from <https://akira.edu.vn/cach-hoc-bang-chu-hiragana>

Note:

- 1) *The 2 alphabets use exact the same pronunciation; the only difference is in writing.*
- 2) *In case of any difficulties in downloading, request your tutor to provide them.*
- 3) Creating the UI main_activity.xml as described in *Figure 2*

- This UI contains both the **name** and the **tables of Hiragana and Katanaka characters**, but just one of them is display at a time (Hiragana first by default), the other is hidden.
- The tables of characters are vertically scrollable. Read more: [ScrollView](#)

Important note: **resources**, including strings need to be declared in **XML** & used by references instead of hard-code directly.

4) Handle user interaction “Switch between alphabets”

- Click any switch button, hide the *current* name of alphabet & table of characters + show the *selected* name of alphabet & table of characters
- Switching animation: you can choose to apply any animations that you learned.

5) Handle user interaction “Pronounce selected character”

- Click any character button, play the corresponding sound.

Important note: the 2 alphabets use exact the same pronunciation, the only difference is in writing – DO use the same sound files for both of them.

6) Run your application, test & debug errors (if any).

3. Submission guidelines

Zip your developed application and submit it on FIT portal before the due date.

Name of the file must match with the project name in format `a1_Sid`, where `Sid` is your student ID (the remaining keeps unchanged). For example, a student has ID 1801040001 then packagename must be named as `a1_1801040001`.

IMPORTANT: fail to name your file as required may lead to no score given!

NO PLAGIARISM! All detected submissions are marked 0 score.