

Python 期末專題

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LET'S BEGIN NOW!


使用 python + kivy + buildozer 做一個簡單的APP



Main

Open list bottom sheet

Your Random meal for today



Montreal Smoked Meat

view

Beef

Ingredients

Canadian

<area>

G+

Black Pepper

SECTION 1



隨機產生地圖附近一種食物並顯示她的各種資訊

Step 1

```
from kivymd.app import MDApp
from kivy.core.window import Window
from kivy.uix.screenmanager import Screen
from kivy.properties import StringProperty
from kivymd.uix.snackbar import Snackbar
from kivy.uix.label import Label
from kivy.network.urlrequest import UrlRequest
import certifi
import os
from kivymd.uix.bottomsheet import MDListBottomSheet
import webbrowser

class HomeScreen(Screen):
    pass

class MainApp(MDApp):
    name = StringProperty()
    category = StringProperty()
    area = StringProperty()
    image = StringProperty()
    url = StringProperty()
    youtube = StringProperty()

    def __init__(self, **kwargs):
        Window.size = (1200, 1600)
        super().__init__(**kwargs)
```

引入所需套件和制訂畫面的
長寬高

Step 2

```
def on_start(self):
    os.environ['SSL_CERT_FILE'] = certifi.where()
    URLRequest('https://www.themealdb.com/api/json/v1/1/random.php', on_success=self.success, on_failure=self.failure, on_error=self.error)

def success(self, urlrequest, result):
    ingredient_list = self.root.ids['home'].ids['ingredient_list']
    print(result)
    self.youtube = result['meals'][0]['strYoutube']
    self.name = result['meals'][0]['strMeal']
    self.category = result['meals'][0]['strCategory']
    self.area = result['meals'][0]['strArea']
    self.image = result['meals'][0]['strMealThumb']
    self.url = result['meals'][0]['strSource']
    for i in range(1, 21):
        if result['meals'][0][f'strIngredient{i}'] != '':
            l = Label(text=result['meals'][0][f'strIngredient{i}'], color=(0, 0, 0, 1))
            ingredient_list.add_widget(l)
```

使用網站提供的API獲取想要的資料，例如:食物的名字、食物的圖片等等

Step 3

```
def show_example_list_bottom_sheet(self):  
    bs_menu = MDListBottomSheet()  
    bs_menu.add_item("Watch",  
                     lambda x: self.watch(), icon="youtube", )  
    bs_menu.add_item("Code Link",  
                     lambda x: self.link(), icon="page-previous", )  
    bs_menu.add_item("Made by kerry 407510062",  
                     lambda x: None, icon="dev-to", )  
    bs_menu.add_item("using Python!", lambda x: self.version(),  
                     icon="language-python", )  
    bs_menu.add_item("Exit", lambda x: self.Exit(),  
                     icon="exit-to-app", )  
    bs_menu.open()
```

製作額外的功能欄

Step 4

製作各種連結按鈕

```
def view(self):
    if self.url != '':
        webbrowser.open(self.url)
    if self.url == '':
        Snackbar(text='Url is not available').show()

def watch(self):
    if self.youtube != '':
        webbrowser.open(self.youtube)
    if self.youtube == '':
        Snackbar(text='Url is not available').show()

def link(self):
    webbrowser.open('https://github.com/kerry41015104/kerry41015104')

def goole(self):
    webbrowser.open('https://earth.google.com/web/search/' + self.area)

def version(self):
    Snackbar(
        text='python version == 3.7'
    ).show()

def Exit(self):
    exit(0)
```



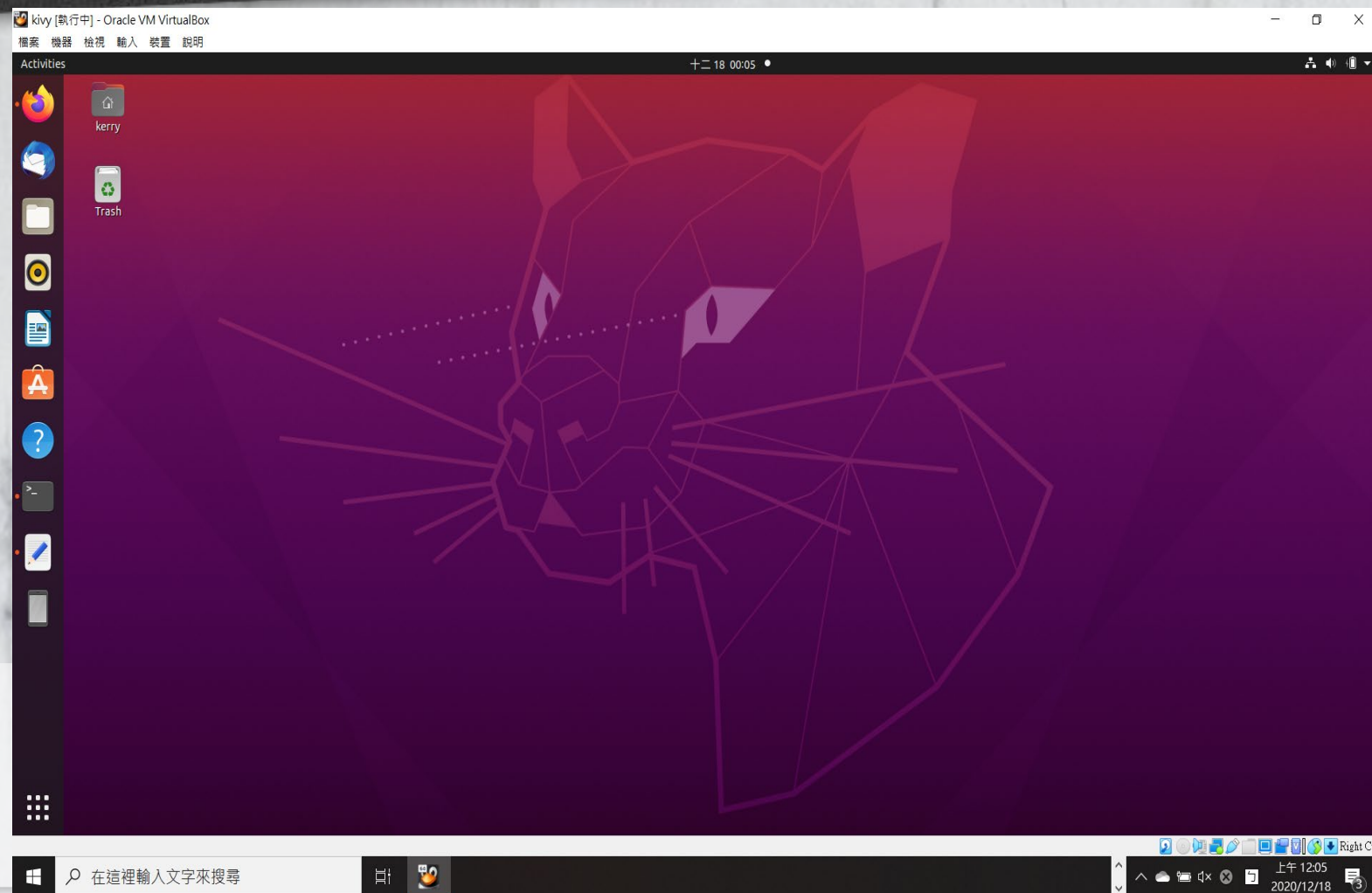
```
name: home

<HomeScreen>:
    FloatLayout:
        Label:
            text: 'Your Random meal for today'
            font_size: 60
            pos_hint: {'top': .9}
            size_hint: 1, .1
            color: 1, 0, 1, 1
        AsyncImage:
            source: app.image
            pos_hint: {'top': .8}
            size_hint: 1, .35
        Label:
            text: app.name
            font_size: 50
            pos_hint: {'top': .45}
            size_hint: 1, .1
            color: 0, 0, 0, 1
        Label:
            text: app.category
            font_size: 50
            pos_hint: {'top': .3, 'left': 1}
            size_hint: .3, .1
            color: 0, 0, 0, 1
        MDRaisedButton:
            pos_hint: {'top': .32, 'right': .65}
            size_hint: .3, .05
            text: 'view'
```

Step 5

使用kivy特有的kv語言來完成Label或Button等功能

Step 6



```
kerry@kerry-VirtualBox: ~/MealApp

Listing '/home/kerry/MealApp/.buildozer/android/platform/build-armeabi-v7a/dists/myMealApp__armeabi-v7a/_python_bundle/_python_bundle/site-packages/usr/local/bin'...
[INFO]:   Detected highest available build tools version to be 30.0.3
[DEBUG]:   -> running gradlew assembleDebug
[DEBUG]:
[DEBUG]:   Deprecatcd Gradle features were used in this build, making it incompatible with Gradle 7.0.
[DEBUG]:   Use '--warning-mode all' to show the individual deprecation warnings.
[DEBUG]:   See https://docs.gradle.org/6.4.1/userguide/command_line_interface.html#sec:command_line_warnings
[DEBUG]:
[DEBUG]:   BUILD SUCCESSFUL in 3s
[DEBUG]:   27 actionable tasks: 4 executed, 23 up-to-date

[INFO]:   <- directory context /home/kerry/MealApp/.buildozer/android/platform/python-for-android

[INFO]:   Of the existing distributions, the following meet the given requirements:
[INFO]:   myMealApp: min API 21, includes recipes (hostpython3, libffi, openssl, sdl2_image, sdl2_mixer, sdl2_ttf, sqlite3, python3, sdl2, setuptools, six, pyjnius, android, kivy, certifi, c
hardet, requests, urllib3, kivymd, idna), built for archs (armeabi-v7a)
[INFO]:   myMealApp has compatible recipes, using this one
[INFO]:   # Copying android package to current directory
[INFO]:   # Android package filename not found in build output. Guessing...
[INFO]:   # Found android package file: /home/kerry/MealApp/.buildozer/android/platform/build-arm
```

製作成APK檔

打開虛擬機(如果電腦是Window)，下載buildozer開始debug

Step 7

```
[app]

# (str) Title of your application
title = My MealApp

# (str) Package name
package.name = myMealApp

# (str) Package domain (needed for android/ios packaging)
package.domain = org.test

# (str) Source code where the main.py live
source.dir = .

# (list) Source files to include (let empty to include all the files)
source.include_exts = py,png,jpg,kv,atlas

# (list) List of inclusions using pattern matching
#source.include_patterns = assets/*,images/*.png

# (list) Source files to exclude (let empty to not exclude anything)
#source.exclude_exts = spec

# (list) List of directory to exclude (let empty to not exclude anything)
#source.exclude_dirs = tests, bin

# (list) List of exclusions using pattern matching
#source.exclude_patterns = license,images/*/*.jpg

# (str) Application versioning (method 1)
version = 0.1
```

Spec File

客製化你想要的APK檔，以及細節調整

Final

客製化完可以更改設初始設定，例如APP的圖片等等

