Reflective Report on Carbon Footprint Tracer Application

This report reflects the learning progress of building an android application. The application built for the course is for users to track CO2 emissions of their journey and provides offsetting approaches. Instead of grouping with other classmates, I made it on my own due to part-time job commitment.

The application design came out as expected, not far away from prototypes from last week, except for the set-up wizard and card payment which were excluded. Functionalities included sign-in, user dashboard and navigation drawer, recording and offsetting emission of journey.

One of the most difficult parts of the assignment was getting familiar with Android Studio that was structure-wise closer to IntelliJ while from the start of the course we have been using Eclipse. I failed to include a graph library from github to dependencies. The codes from some templates were also hard to follow as I have not seen some of the keyword and classes. Layouts were tricky when I tried to display the same application on phones of different screen sizes. Besides, the slow processing speed made testing on android phone extremely difficult. The laptop was not capable of loading Emulator which would lead to crushing of Android studio.

That said, I still felt proud of the application that came out at last after countless times of testing and debugging. There were still some parts of it that could be improved but was unlikely to happen in the given time frame. I tried to build a firebase for user data but it did not work out so I probably would leave it to after submitting the program. The username and email address displayed in navigation and dashboard were consistent by intent put and get extra method.

Checked to list:

- Navigation was realized through gesture
- Linear, Relative and Constraint layouts were used and thirteen screens in total
- Different images – file copies and android system icons
- Multiple strings in the resources file strings.xml and were translated to Chinese
- Support for various screen sizes but not landscape
- Support for back button
- Settings menu (could just be language setting or dark mode) – language setting could be modified
- Advanced features
    - Translations of strings for at least 1 additional language, failed with images
    - Accesses online data or sources – web views of emission offset programs

Screenshots were attached from next page for visualising most functionalities.

Carbon Footprint Tracer | **碳足迹追踪器** | **Carbon Footprint Tracer** | **碳足迹追踪器**

Carbon Tracer

Welcome to Carbon Footprint Tracer! | 欢迎使用碳足迹追踪器 | Welcome to Carbon Footprint Tracer! | 欢迎使用碳足迹追踪器

SIGN IN | 登录 | SIGN IN | 登录
SIGN UP | 注册 | SIGN UP | 注册

Sorry! This section is still under construction. | 抱歉！此板块仍在开发中

Login | **登录** | **Login** | **登录**

Carbon Tracer

Username | Username
Email | Email
Password | Password

用户名 | 用户名
电子邮箱 | 电子邮箱
密码 | 密码

Username | Jam
Email | Password must be >5 characters
Password | Password

用户名 | Jam
电子邮箱 | jamkowk@g
密码须大于五个字符
密码 | •••••

Jam
jamkwok@gmail.com

🏠 Home
👤 Account
⚙ Settings
🏃 Logout

Purchase Offset

JOURNEY

Jam
jamkowk@gmail.com

🏠 主页
👤 账号
⚙ 设置
🏃 退出登录

Purchase Offset

Language

中文(香港地區)
English (Hong Kong SAR China) ⦿
Bahasa Indonesia
Bahasa Melayu
Basa Sunda
Bosanski
Català
Čeština
Dansk
Deutsch (Deutschland)
Deutsch (Liechtenstein)
Deutsch (Österreich)
Deutsch (Schweiz)

Please change system language setting
CANCEL   OK

语言

中文(香港地區)
English (Hong Kong SAR China)
中文 (简体) ⦿
日本語
中文 (繁體)
Bahasa Indonesia
Bahasa Melayu
Basa Sunda
Bosanski
Català
Čeština
Dansk
Deutsch (De...

请更改系统语言设置
取消   确定

Welcome back Jam!

Weekly Report →
Check out weekly CO2 emission details

+ Record Emissions **–** Purchase Offset

Welcome Jam !
START TRACKING JOURNEY

欢迎回来 Jam!

Weekly Report →
Check out weekly CO2 emission details

+ Record Emissions **–** Purchase Offset

欢迎 Jam !
开始追踪行程

Welcome back Jam!

Weekly Report →
Check out weekly CO2 emission details

+ Record Emissions **–** Purchase Offset

Back to dashboard
START TRACKING JOURNEY

欢迎回来 Jam!

Weekly Report →
Check out weekly CO2 emission details

+ Record Emissions **–** Purchase Offset

返回主页
开始追踪行程

Welcome back Jam!

Weekly Report →
Check out weekly CO2 emission details

+ Record Emissions **–** Purchase Offset

Sorry! This section is still under construction.
START TRACKING JOURNEY

欢迎回来 Jam!

Weekly Report →
Check out weekly CO2 emission details

+ Record Emissions **–** Purchase Offset

抱歉！此板块仍在开发中
开始追踪行程

Carbon Footprint Tracer

←Back

Way of Travel

○ Train
○ Bus
○ Car
○ Motorcycle
○ Bicycle

CANCEL   CONTINUE ...

碳足迹追踪器

返回

路程交通方式

○ 火车
○ 公交车
○ 小汽车
○ 摩托车
○ 自行车

取消   继续

Carbon Footprint Tracer

←Back

Way of Travel

● Train
○ Bus
○ Car
○ Motorcycle
○ Bicycle

CANCEL   CONTINUE ...

碳足迹追踪器

返回

路程交通方式

● 火车
○ 公交车
○ 小汽车
○ 摩托车
○ 自行车

取消   继续

D5322 — □ ✕ 20:16
Carbon Footprint Tracer
←Back
Date of Travel
25
OCT
2021

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

GET DATE

CANCEL   CONTINUE ...

D5322 — □ ✕ 20:28
碳足迹追踪器
返回
路程日期
2021
10月
25

日	一	二	三	四	五	六
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

保存日期

取消   继续

D5322 — □ ✕ 20:17
Carbon Footprint Tracer
←Back
Date of Travel
25
OCT
2021

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

GET DATE
Selected Date:25/10/2021

CANCEL   CONTINUE ...

D5322 — □ ✕ 20:28
碳足迹追踪器
返回
路程日期
2021
10月
25

日	一	二	三	四	五	六
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

保存日期
选中日期25/10/2021

取消   继续

D5322 — □ ✕ 20:17
Carbon Footprint Tracer
←Back
Time of Travel

19   16
20 : **17**
21   18

GET TIME

Total Time 00 Hour(s) 00 Minute(s)

CANCEL   SUBMIT

D5322 — □ ✕ 20:29
碳足迹追踪器
返回
路程时间

19   28
20 : **29**
21   30

保存时间

总时间 00小时00分钟

取消   提交

D5322 — □ ✕ 20:18
Carbon Footprint Tracer
←Back
Time of Travel

19   16
20 : **17**
21   18

GET TIME

Total time 20 Hour(s) 17 Minute(s)

CANCEL   SUBMIT

D5322 — □ ✕ 20:29
碳足迹追踪器
返回
路程时间

19   28
20 : **29**
21   30

保存时间

总时间 20 小时 29 分钟

取消   提交

D5322 — □ ✕ 20:19
Carbon Footprint Tracer
←Back

Your carbon footprint for
the travel is saved

BACK TO DASHBOARD

D5322 — □ ✕ 20:29
碳足迹追踪器
返回

您的碳足迹行程已保存

回到主页