**STUDENT NUMBER:**

ST10084521

**COURSE CODE:**

BCAD3

**MODULE CODE:**

OPSC7312

**MODULE NAME:**

Open-Source Coding (Intermediate)

<u>ReadMe</u>

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**Name of Program**

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©Avian



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**Code attribution**

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This whole program has been coded in the Kotlin language with the exception for designing of the pages which was coded XAML.

The use of googles firebase databases was used for storing user login/register detail (firebase authentication) along with the users bird observations data/settings/notes/points (firebase Realtime database) and to store observation images (Firebase storage database).



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**Reason For creating this program.**

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With the increase every year in population in particular we see that countries have a higher need for the creation and building of new towns and suburbs. This in turn makes humans disturb (birds' habitat especially) natural habitats, making it harder for bird lovers or an ornithophile (WordScene, 2023)to discover and view/site different birds. With buds being now spread out across areas in whatever wildlife they can find within suburbs and towns. The need to share the knowledge of different bird hotspots to help new and old ornithophiles is a need at this point. An easy way to communicate with the bird loving community a new information and buds, the birds that they have spotted incited and have observed at certain locations will help increase the joy and knowledge for the future generations.

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**References of Code and Advanced features**

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Bird observation data and for the Web Api in the 'Birdpedia' Page:
https://ebird.org/home

The creation and saving of user bird Observations:
https://www.youtube.com/watch?v=vVs4slEQ5fs

Design for button:
https://www.youtube.com/watch?v=nlPtfncjOWA&t=104s

slide show of images on home page:
https://devendrac706.medium.com/android-image-slider-with-indicator-auto-image-slider-in-android-studio-kotlin-kotlin-tutorial-ed55e79a0cad

conversion from Kilometres to miles:
https://www.unitconverters.net/length/km-to-miles.htm

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**FAQ's**
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- What does the 'About' Button on the home page not redirect me to a new page?
  The About Feature will come with the next version of the app.

- Why is it that when I Register it Keeps on Redirecting me to the Login Page?
  You have successfully created an account on the Avian Platform. Once you complete Creating your account you are required to login using that account thereafter.

- How many points do I get per observation?
  You get 50 points per observation.

- Why does the 'Birpedia' Page not show anything, is blank?
  This maybe because of the internet connection or that your internet is restricted, try connecting to a divert /open network and try again.

- Why does my map page crash?
  This is because you are not allowing the 'Map' page to fully load. How u will know that the map page is fully loaded? When u have
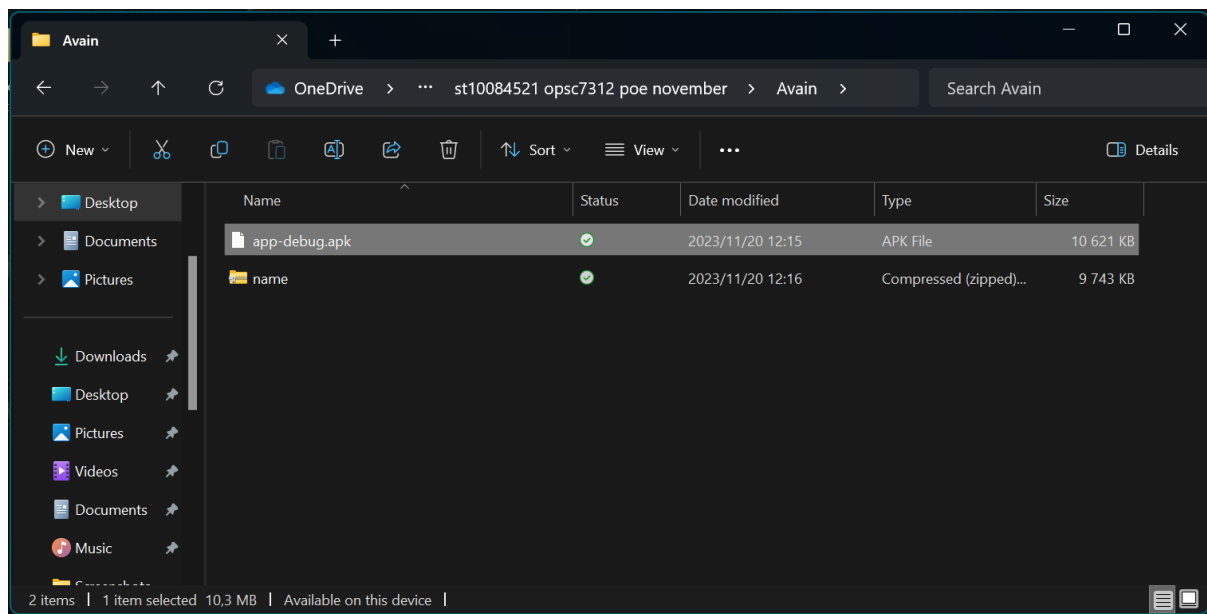
<u>a location icon along with an arrow.</u>
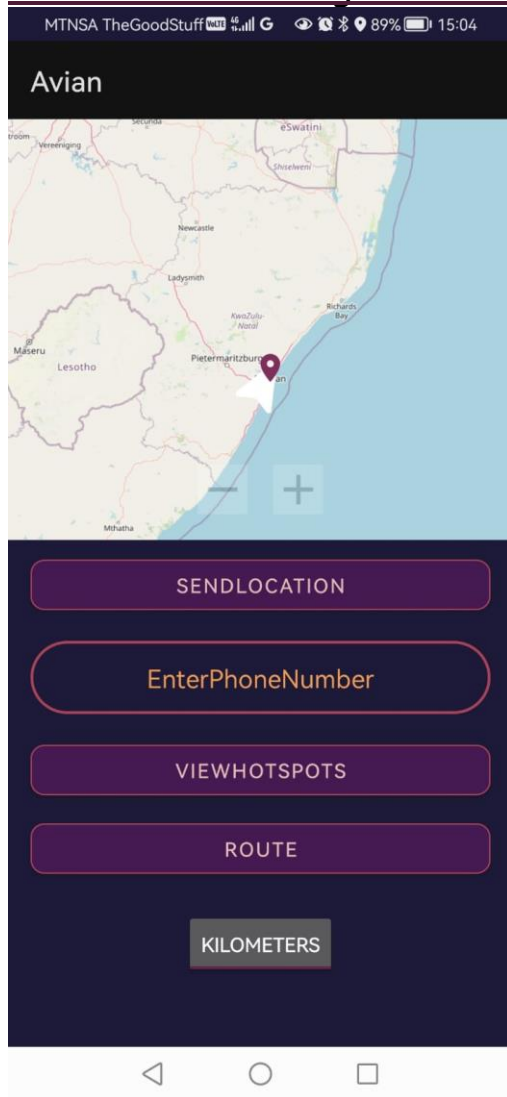


- **Where are my recordings?**
<u>This is being saved on your local device, Local Storage.</u>

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**Troubleshooting**

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**How to run the App and to install on your smart phone:**

In the folder that this document was in, you will see the following files.



The app-debug.apk is the folder that you will need to install on your smart phone.

You can do this by plugging in your smart device into the computer using its designated USB type cord.

Then drag the file from this file onto the phone.
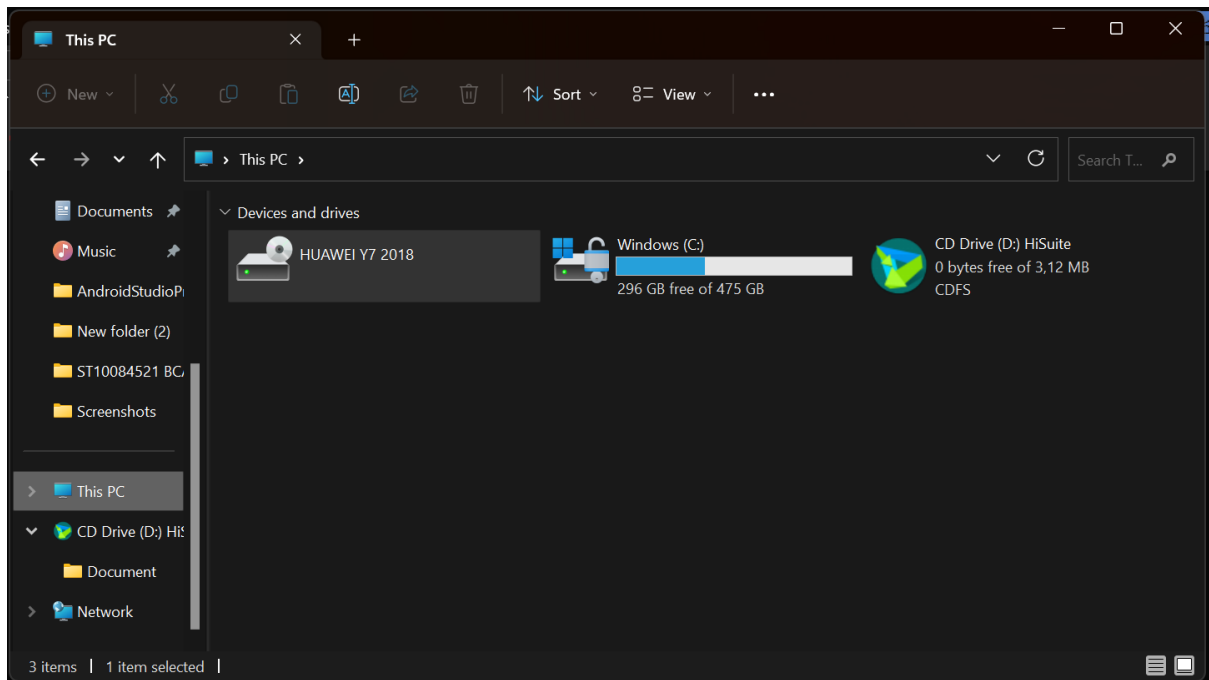
Thereafter on your device go to file explorer, internal storage, <mark>app-debug.</mark> Double click on the file. It will then ask you a series of questions in which=h you will answer accordingly(yes). The app will then install.

You can also download the app from google playstore by the same name: Avian.

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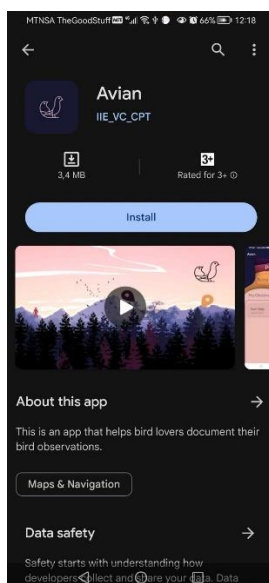
**Software Specs**

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<u>Avian Version 1.0</u>
Created on Android studio Electric eel 2022.1.1.
Navigation Drawer Activity
Minimum SDK: API 27 Android 8.0 (Oreo)

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## Implementations and dependencies

This is done in the Build gradle.

```
//added 21/09/2023
    implementation'org.osmdroid:osmdroid-android:6.1.16'

//added 22/9/2023
    implementation'com.google.android.gms:play-services-location:21.0.1'

    //new 17/10/2023
    implementation'com.github.MKergall:osmbonuspack:6.9.0'

    // for bird observation
    implementation 'com.google.code.gson:gson:2.8.9'

    //added for storage
    implementation 'com.github.bumptech.glide:glide:4.14.2'
    annotationProcessor 'com.github.bumptech.glide:compiler:4.14.2'

//added slides
    implementation'com.github.denzcoskun:ImageSlideshow:0.1.0'
```

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## Device Specs

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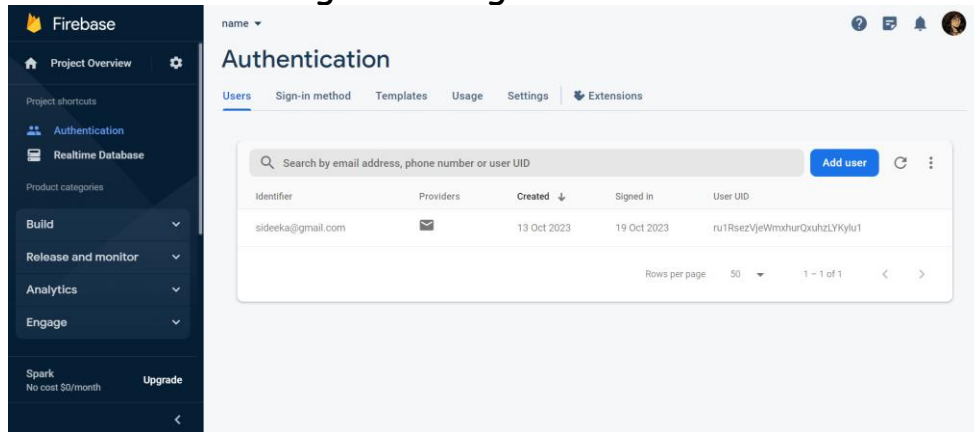
Smart Android Phone

8 GB Ram

Minimum Android Version: API 27 Android 8.0 (Oreo)

Space Free: +100mb

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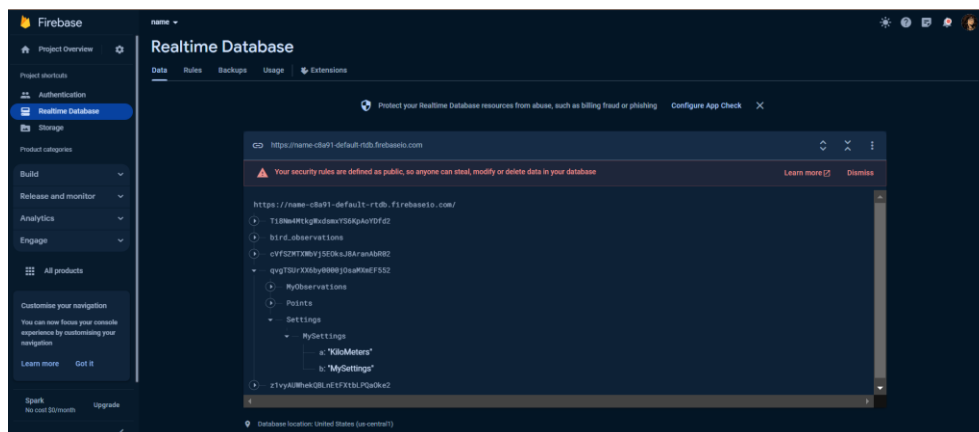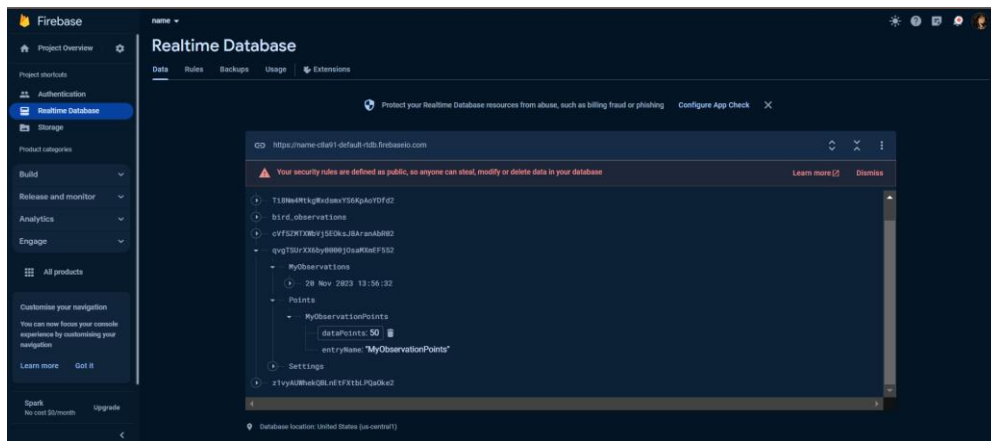## Data saved in the database/Firebase.

## Authentication/login and register:



## Saving of observations using RealTime database:
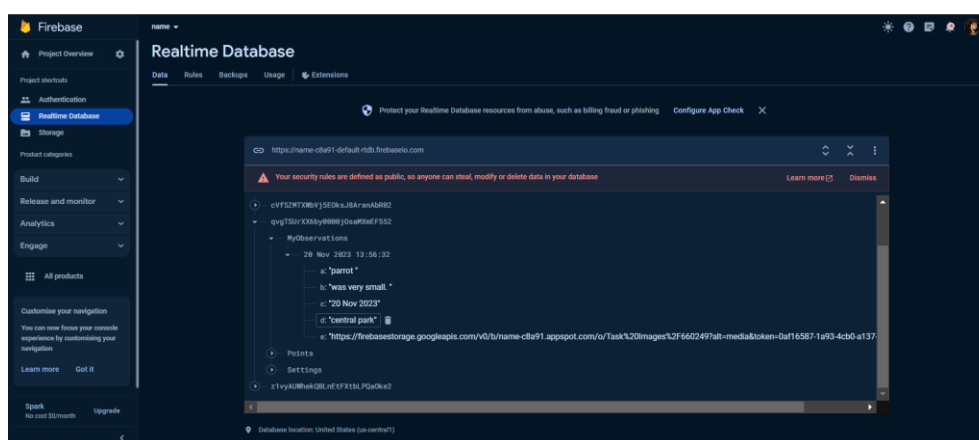
## Saving of images to firebase storage:

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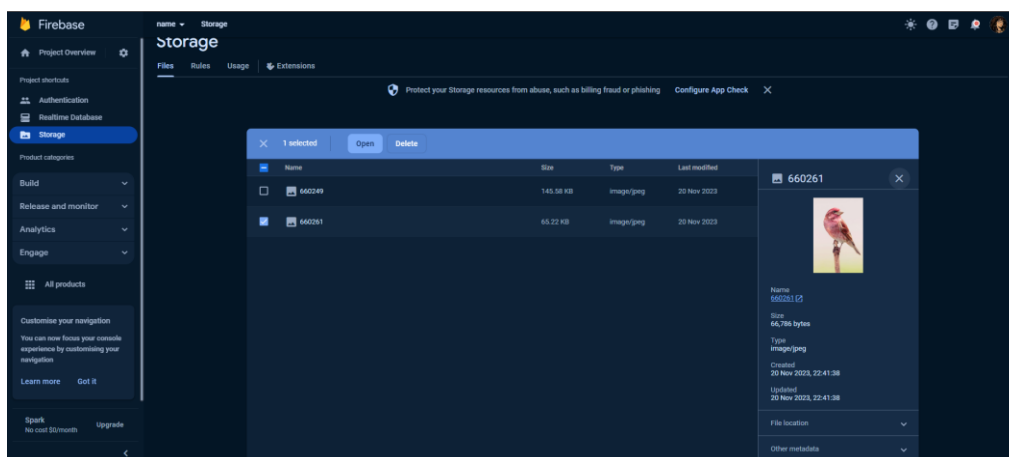
**Change log:**

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**Version 3.0**

Done by: Sideeka Ayoob st10084521 (only).

Started :30 October 2023.

Ended :19 October 2023.

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**How to contact Programmer/Creator**

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If there are any other issues, that cannot be solved using the FAQ,
you can contact the programmer with the following details:
- Email: ST0084521@vcconnect.edu.za
- Personal Email:sideekaayoob01@gmail.com
- Phone number :065 745 0786
- Github : https://github.com/VCWVL/opsc7312-poe-st10084521