Support Document

Save The Hoodie

Support conservation of Hooded Plovers in Victoria

Faunalytics | Handover Package | 29-Oct-2020

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1 Introduction

Support document is designed to provide instruction to set up and run the system of “Save The Hoodie” for employees and administrators who will operate the application.

2 Proposed System

In Victoria, the number of Hooded Plover is decreasing progressively. Currently, there are only 550 Hooded Plover in Victoria. “Save The Hoodie” aims to educate users about the bird and help them to protect the species by reminding them to be careful when they are close to Hooded Plover that are on beaches people visit often. The application is built based on Android system with using Java.

Product Video can be found in the link below

https://www.youtube.com/watch?v=NCFmEXjLnAM

3 System setup

3.1. Backend Server

The backend of this system is based on AWS EC2. It is established by Flask to build a webservice with using Linux system and Python; and it provide two “GET” requests, one is that using the user location to get the nearest distance from one of Habitats another will be used to return all data which will be used in map distribution.

The Flask web service can be set up by following the instructions in the following link:

https://www.tutorialspoint.com/flask/index.htm

3.2. IDE Tool: Android Studio

The IDE tool we used is Android Studio. Before installing Android Studio:

a) Read the user guide to be more familiar with the download solution.

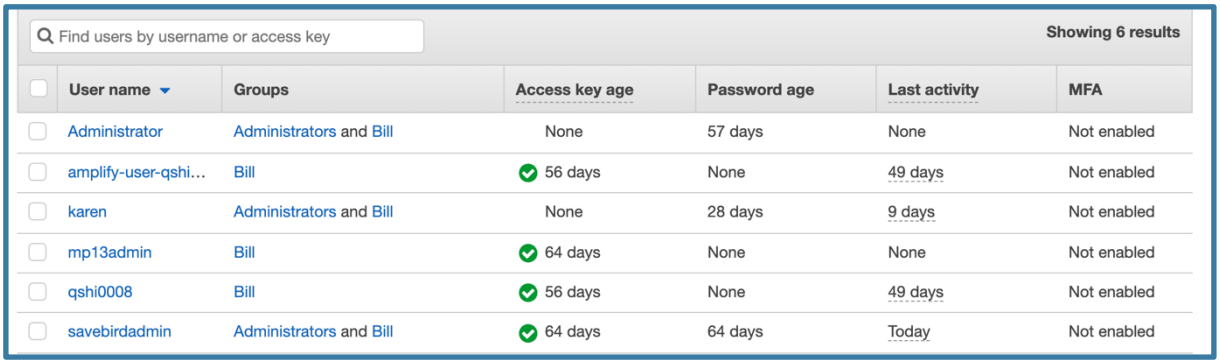
   For more details please watch the following link: https://developer.android.com/studio/intro

b) Check the system requirements which help you check your desktop/laptop supports Android Studio 4.0.2.

For more details please watch the following link: https://developer.android.com/studio

4 Servicer Account management

The AWS console can manage different accounts. The administrator has all permission of service. IAM user can access and use these services.



User name	Groups	Access key age	Password age	Last activity	MFA
Administrator	Administrators and Bill	None	57 days	None	Not enabled
amplify-user-qshi…	Bill	56 days	None	49 days	Not enabled
karen	Administrators and Bill	None	28 days	9 days	Not enabled
mp13admin	Bill	64 days	None	None	Not enabled
qshi0008	Bill	56 days	None	49 days	Not enabled
savebirdadmin	Administrators and Bill	64 days	64 days	Today	Not enabled

For more information, please follow the instructions in the link:

https://docs.aws.amazon.com/iam/index.html

5 Operational Guide

a) Keep AWS EC2 Alive.

b) Run the Flask service by SSH AWS EC2 server.

c) Make sure the integrity of Project file.

d) Update data in Flask service annually.

6 Data Management

a) Open dataset:

Names	Physical Access Used	Frequency of source updates	Frequency of Iteration system updates	Granularity	Copyright
Mapbox	API	Every minute	The coordinate will be updated every minute as the API's	Not applicable	Register to legally use
eBird	CSV	Monthly	Yearly	High	Free for not commercial use
Birdlife	Statistic figures	Yearly	Yearly	Not applicable	Free for not commercial use

b) Updating data

The main data in the database we used is from "eBird". The data in "eBird" will be updated monthly, and we decide to update data annually. Furthermore, the validation of Mapbox API Access Key should be checked regularly.

7 Backup and Restore

It is important to restore backup data when the project suffer some unexpected deletion, database corruption or any other accident. We use GitHub to backup and restore the project and AWS console to backup and restore the backend server.

For more details about GitHub please watch the following link:

https://guides.github.com/introduction/git-handbook/

For more information about AWS EC2 backup and restore, please see the following link below:

https://aws.amazon.com/blogs/aws/aws-backup-ec2-instances-efs-single-file-restore-and-cross-region-backup/

8 Troubleshooting

Some unexpected factor will cause the error of Android Studio, low performance of development.

Please see the following link to get the troubleshooting guide:

https://developer.android.com/studio/troubleshoot

9 Shutdown and Restart

When rebooting, follow the above procedure to maintain data integrity and complete the system tests mentioned in this manual. If any errors occur during the process, please refer to the troubleshooting section of this document.

If you want to shut down the system and restart the service, or migrate to another server please follow the link below:

https://aws.amazon.com/ec2/?ec2-whats-new.sort-by=item.additionalFields.postDateTime&ec2-whats-new.sort-order=desc

10 Shutdown and Restart

Position	Skill	Quantity
Software Developer	Experience of Java and Android Studio Knowledge of TPC/IP, HTTP	1
UI Designer	Experience of mobile application UI design Familiar with MockingBot and photoshop	1
Data Manager	Experience of JavaScript, html Ability of data wrangling	1
Test Engineer	Ability to do complex manual test Knowledge of writing code for automagical test	1
Project Manager	Deep Understanding of agile development Ability to track project process and maintain smooth communication between multiple party	1