

Progress Report 1

Objectives

- To create a sample Android application that successfully connects to AWS servers and calls the Rekognition API.
- To create a sample Android application that captures videos through the phone's camera, and stores the video feed to internal hard-drive.

Result

- Successfully setup IAM users for Keming, Pulkit, and Karthik, under Keming's root user.
- Successfully setup Keming's S3 bucket and Cognito Identity Pool for data upload.
- Successfully setup Keming's BIOS to allow emulation of Android phone for testing.
- Successfully setup Node.js®, npm, CLI, and the Amplify framework for mobile dev.
- Successfully created sample application and printed Hello World in main-activity.
- Failed to integrate Amplify with sample application using AWS tutorial.
- Discovered android app template and tutorial to run Rekognition.

Tutorial: <https://medium.com/how-to-integrate-aws-rekognition-in-android/aws-rekognition-in-android-9d16f16d591c>

Template(s): <https://github.com/aws-labs/aws-sdk-android-samples>

- Downloaded template, finished setup, found missing main-activity.

Breakdown of Time Spent

Figure 1 demonstrates the breakdown of Keming's time spent on Six Sense in week of 10/20 to 10/26, with total of 6 hours.

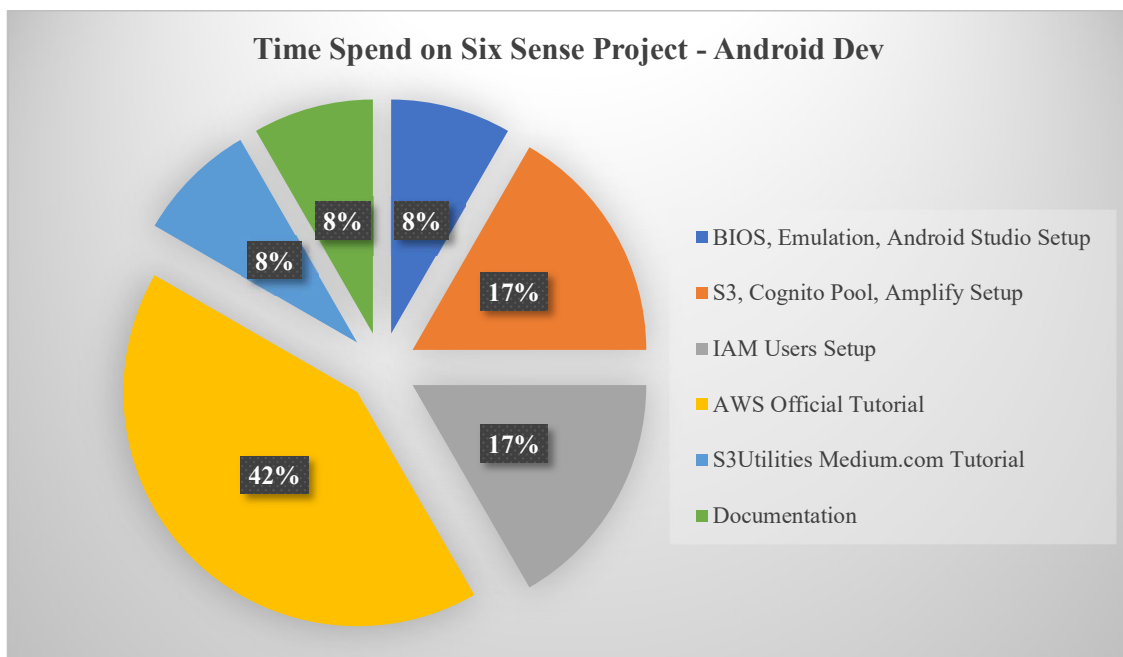


Figure 1 Breakdown of time spend on six sense

Forward

For week of 10/27-11/2:

1. Finish following the S3TransferUtilities tutorial with Rekognition;
2. Integrate sample main activity to template; -- end of hackathon
3. Test prototype with sample video input. – end of Nov. 9

Addition development goals and due dates are listed in Table 1 below.

Table 1 Android App Dev Timetable

Meeting Notes

Karthik

Survey through IRB-institutional review board – demographic, 8 most prevalent landmarks
Complement the walking sticks – landmark detector

Apply grants through:

National Science Foundation

National Federation of the Blind

Denman Undergrad. Research Forum – need adviser (CSE Prof.)

Use consultant's credibility to get community buy-ins.

BuckIRB – how much share are they gonna have on our creation?

Beth Snoke – smart Columbus – coordinate with bus stop detection

Be humble

Meeting w/ Oct. 31 3pm – Pulkit and Karthik – DL291

Pulkit

TODO: Front-end template design: xml in Android studio (only bus-stop for now, and TDD) no activities. One main activity.

PCB master std (**Mihir**)

On the PCB: bluetooth antenna, Atmega 328p chip, 3 out pins