CprE 491 - sdmay19-38

Android App Forensic Evidence Database

Weekly Report 7

11/01/2018 - 11/08/2018
Client: Neil Gong and Yong Guan
Faculty Advisors: Neil Gong and Yong Guan

Team Members:

Mitchell Kerr -- Tech Lead
Connor Kocolowski -- Report Lead
Emmett Kozlowski -- Meeting Scribe
Jacob Stair -- Testing Lead
Matthew Lawlor -- Meeting Facilitator

Past Week Accomplishments

- Containers and Container Orchestration
  - Research was completed the past week on how our Flask applications should function and we decided to use Docker containers to run our applications. This will allow us to run the applications efficiently and from anywhere. Updating our crawlers will also be easier when using this type of architecture.
  - We are leaning towards using Kubernetes to manage our containers. This will allow us to scale easily and manage each of our applications individually. Kubernetes is the leader in container orchestration and has a lot of support for how to use it. However, there is a large learning curve for this technology so we need to do perform some hands on prototyping to see if it is viable.
- Began exploring how to download apk files from the google play store as well as beginning to collect metadata from applications on the store

Pending Issues

- Need to further validate that Kubernetes is a viable option for our project given our timeline and needs.
- Need to figure out how to download apk file from the google play store without an physical android device

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Mitchell Kerr	APK crawler is done except for bug with downloading APK's	6	37
Connor Kocolowski	Added permissions to f-droid crawler, as well as began working on google play store crawler	7	52
Emmett Kozlowski	Researched how to deploy our flask applications and continued validating the data model	6	46
Jacob Stair	Finished version-specific metadata collection for the UpTodown crawler.	6	39
Matthew Lawlor	Finished the upload capability for the crawlers and download ability for our library	4	34

Plans for Coming Week

- Create a docker image of a basic flask app
- Create a basic Kubernetes cluster and play around with it to evaluate it further
- Complete currently unfinished crawlers
  - APKMirror, UpToDown
- Begin work on new 3rd party apps
- Further work on Google Play Store crawler
- Merge crawlers into master
- Start writing unit tests for crawlers