**Fresh Fruit Detection App**

Documentation for final project

20161112 Jungmin Park

20181257 Chanhyeok Choi

**Motivation**

The motivation was one fact that a lot of foods especially fruits are wasted everyday. So we though that easy classification of fruit freshness might reduce the such waste in many ways such as farmers, markets and customers.

**app design & running examples**

Our goal is to show freshness of fruits using smartphone’s camera with very high accuracy.

We designed our app simple and clear as possible to focus on quick and easy freshness detection. This screen is our main screen. When user clicks the Take photo button then smartphone activates camera and ready to detect the freshness. Or try examples with given apple pictures.

과일, 자연 식품, 사과, 농산물이(가) 표시된 사진

자동 생성된 설명

**the role of each member (in the case of a team with two members)**

Jungmin Park : implement app

Chanhyeok Choi: implement tflite model

**conclusion**

We developed a model with a high level of accuracy, although we failed to complete the app. We could complete the interface of the app, but applying the tflite model to the app was more difficult than we thought. If we proceed with a similar project next time, it will be helpful to proceed with the project easily by making it easy to apply to the app from the production stage of the model.

**References**

[Build and deploy a custom object detection model with TensorFlow Lite (Android) (google.com)](https://developers.google.com/codelabs/tflite-object-detection-android#6)

(reference code of our base app)

[FreshFruitModel.ipynb - Colaboratory (google.com)](https://colab.research.google.com/drive/18c8hsAdpbWczRG8xBnwZb_SpDyQ5BPvk#scrollTo=2VSF9w4UOPN7)

(colab freshness detection model codes, same as FreshFruitModel.ipynb in submission file)