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Smart Lens – A Google Firebase ML Kit Application

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Abstract: Smart Lens is an AI-powered technology application that uses the smartphone camera and deep machine learning concept to offer facilities like Language Translation, Language Identification, Barcode Reader, Object detection, and Text Recognition. All these activities are difficult and time-consuming for the individual human being, so for that purpose, these activities need to be done via Machines only. For real-life entities, new Technology like Artificial Intelligence is best suited for it. In this paper, we have discussed methods for all these activities using Google Firebase Services like Firebase ML kit. It is a complete package of ready-to-use APIs for experienced as well as Naïve developers.

Keywords: Text Recognition, Language Identification, Language Translation, Barcode Reader, Object Detection, Machine Learning.

REFERENCES

- [1] Chowdhury Md Mizan, Tridib Chakraborty* and Suparna Karmakar, "Text Recognition using Image Processing," International Journal of Advanced Research in Computer Science, 2017.
- [2] C.P. Chaithanya, N.Manohar, Ajay BazilIssac, "Automatic Text Detection and Classification in Natural Images," International Journal of Recent Technology and Engineering (IJRTE), 2019.H. Dhawan, "Firebase ML Kit 101: Image Labeling," October 29, 2018. [Online]. Available: https://firebase.google.com/docs/ml kit/label-images. [Accessed 24c May 2019]
- [3] L. Moroney, "Using TensorFlow Lite on Android," Tensorflow Lite on March 31, 2018. [Online]. Available: https://www.tensorflow.org/lite/guide. [Accessed May 24, 2019].
- [4] J. Birch, "Exploring Firebase MLKit on Android: Introducing MLKit," 22 May 2018. [Online]. Available: https://joebirch.co/2018/05/22/exploring firebase-mlkit-on-android-introducing-mlkit part-one/.
- [5] Pratik Madhukar Manwatkar, Shashank H.Yadav, "Text Recognition from Images," IEEE Sponsored 2nd International Conference on Innovations in Information, Embedded and Communication systems (ICIIECS), 2015.
- [6] Norhashimah Mohd Saad, Barcode Recognition system, International Journal of Emerging Trends & Technology in Computer Science (IJETTCS), www.ijettcs.org, Volume 2, Issue 4, July-August 2013.
- [7] R. Girshick, J. Donahue, T. Darrell, and J. Malik, "Fast R-CNN Model for the object Localization and Object Detection," 2014 IEEE Conference on Computer Vision and Pattern Recognition, 2014.

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