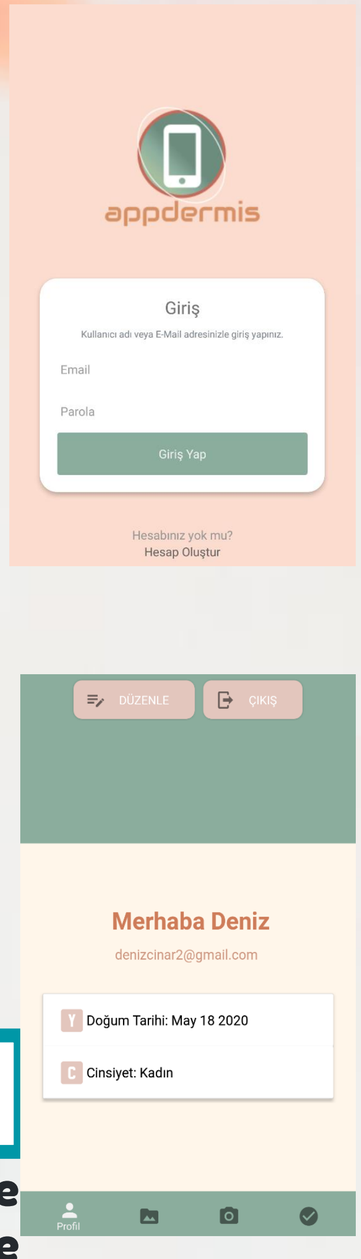
appdermis

Abstract

Melanoma is a form of cancer that develops in the skin's pigmented cells. It is the most serious form of skin cancer and grows very quickly if it left untreated. On average 1 in 5 people will develop skin cancer. The good news is that if detected early, melanoma can be effectively treated. We developed an application that you can regularly scan your skin and consult a doctor early in a risky situation. Keywords : skin cancer, detection, early, melanoma

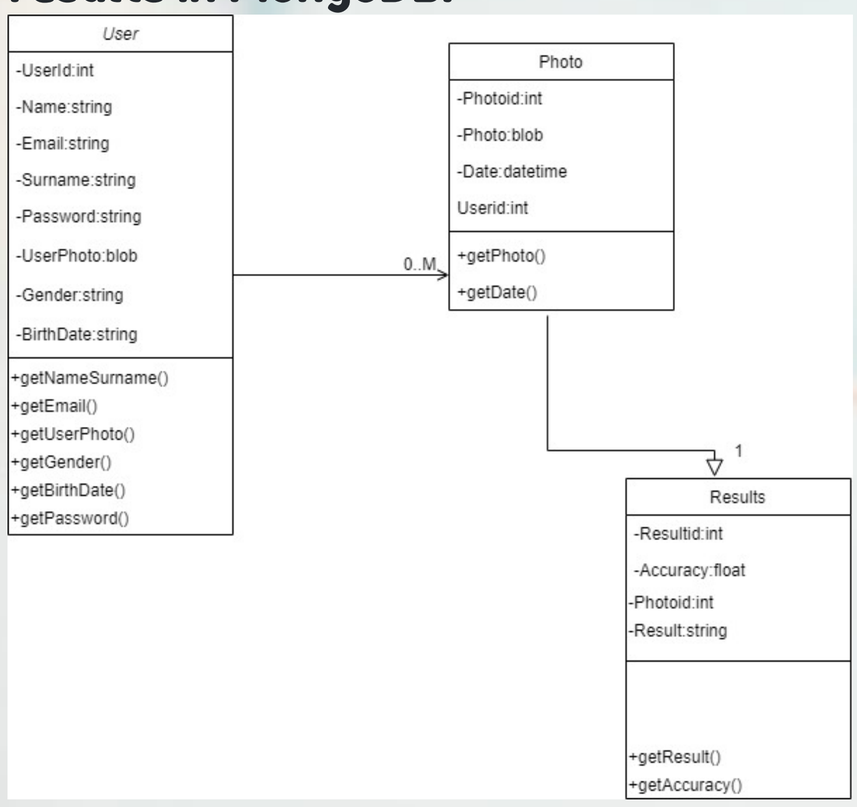
Introduction

The problem we focused on was helping early detection of melanoma by developing a mobile application that is easily accessible to everyone. Appdermis is the first mobile application that is developed for this purpose in Turkey. Unlike the applications developed for this purpose, we have developed a better scanning system, more accurate astimates and a better user interface.

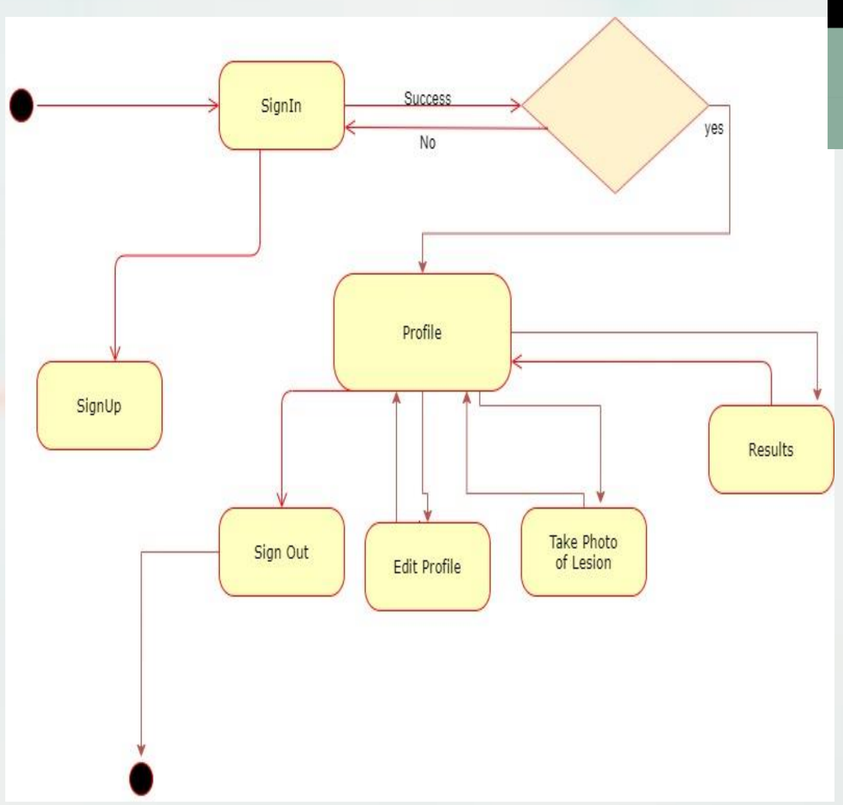


Solution

With appdermis, each user can create their own account. Users will be able to take the photo of the risky area through the application. Photos will be stored on users' account to improve tracking of the lesion. The risk status of the lesion will be reported to the user immediately. The system will not make any diagnosis. Users can update the system periodically and consult a doctor immediately in a risky situation. We used CNN algorithm and tranform learning methods for classification of the lesions and grayscale median blur for pre-processing of the lesion images. For the evaluation, ROC curve analyze and confusion matrix are used. Mobile application has developed using React Native. We stored user information, images and results in MongoDB.



Class Diagram



Activity Diagram

Screenshots

Conclusion

We have developed a mobile application to be used in early skin cancer diagnosis. We hope, it helps people who need it

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