

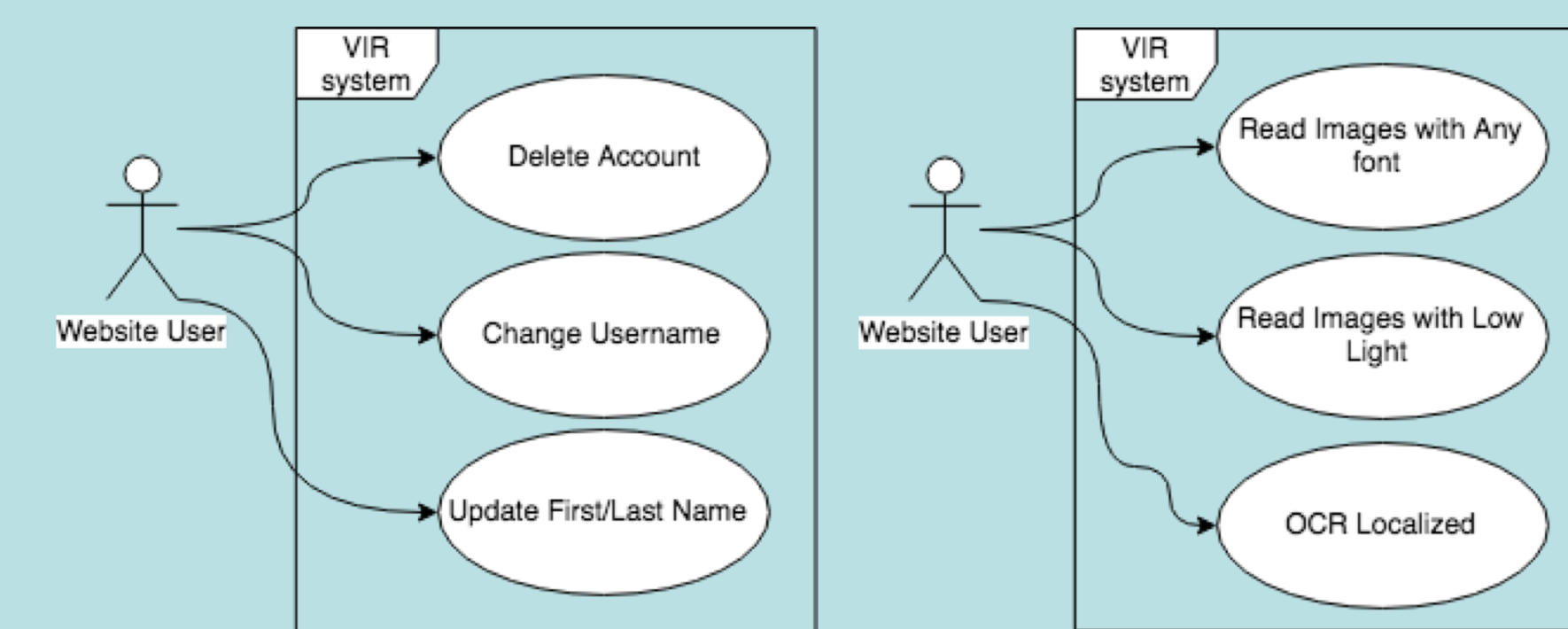
Problem

1. Account changes are NOT possible
2. Account deletion is NOT possible
3. NO low lighting images OCR results
4. Limited font OCR results
5. NO translation from OCR results

Current System

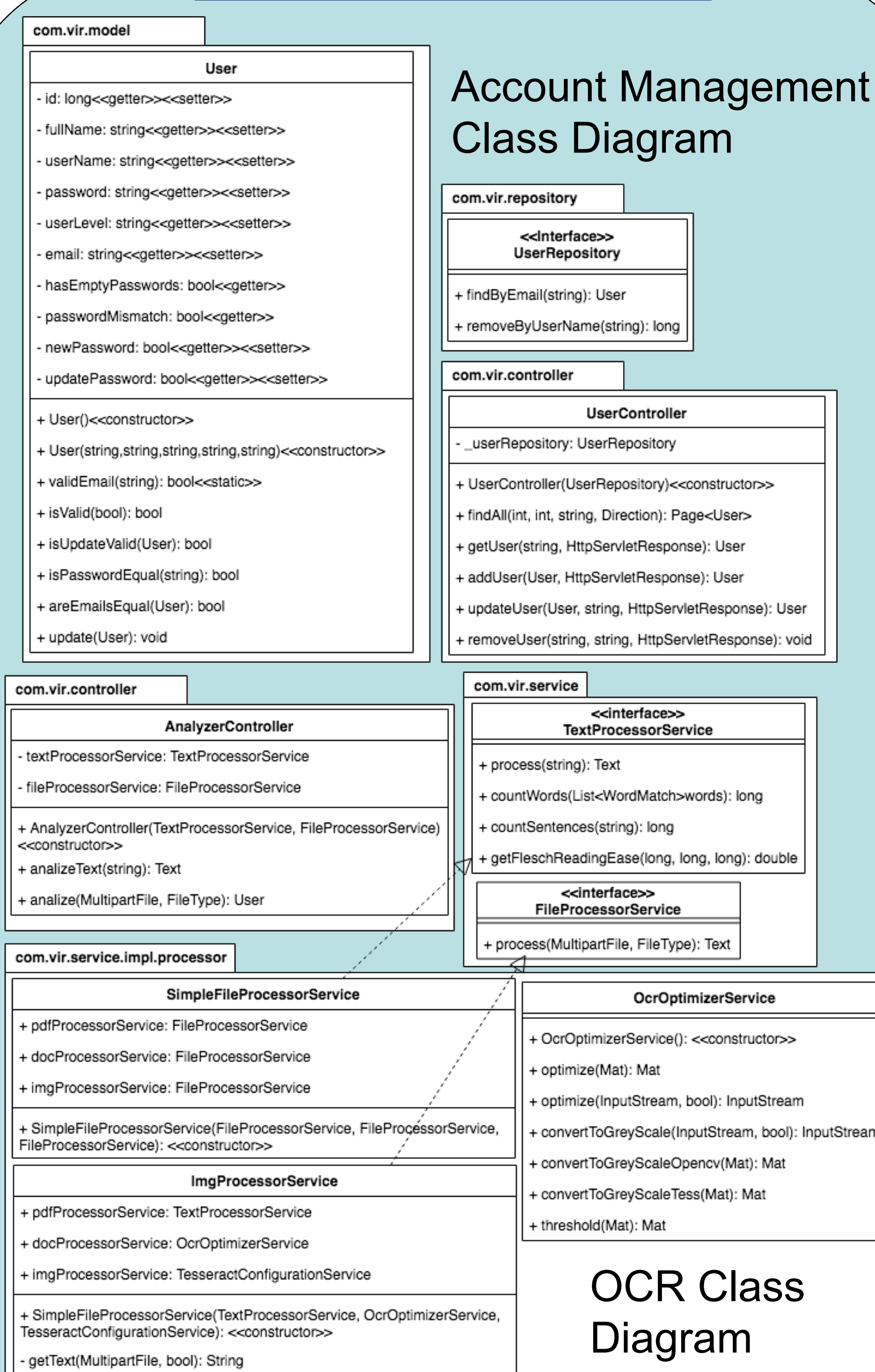
1. Users can create an account in the VIR system
2. Users can upload images and get an OCR reading on some images without a translation

Requirements



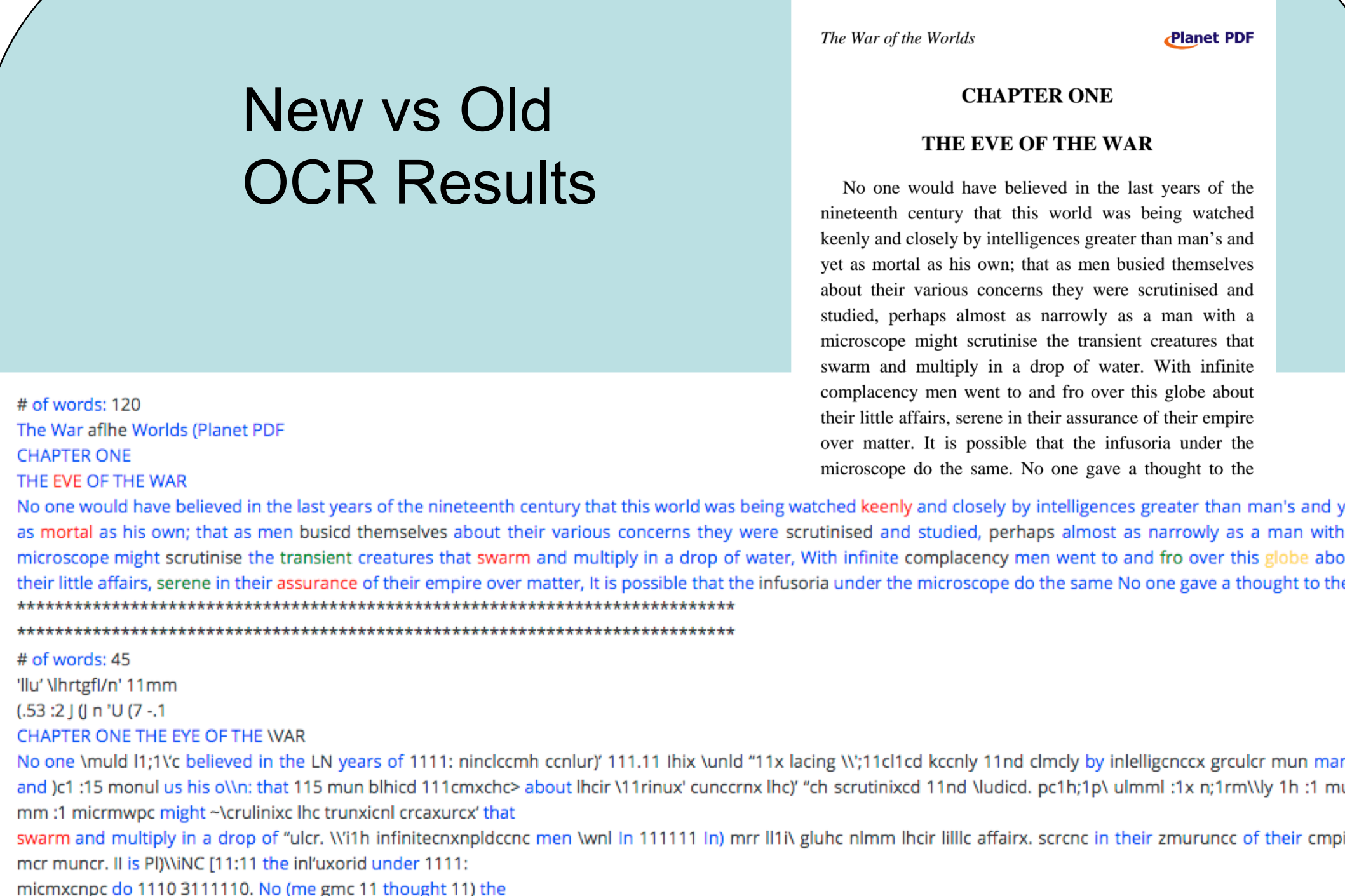
1. Users should be allowed to update and delete their account
2. Users should be able to upload images with low lighting, different languages, and a larger set of fonts with improved results

Object Design



Verification

New vs Old OCR Results



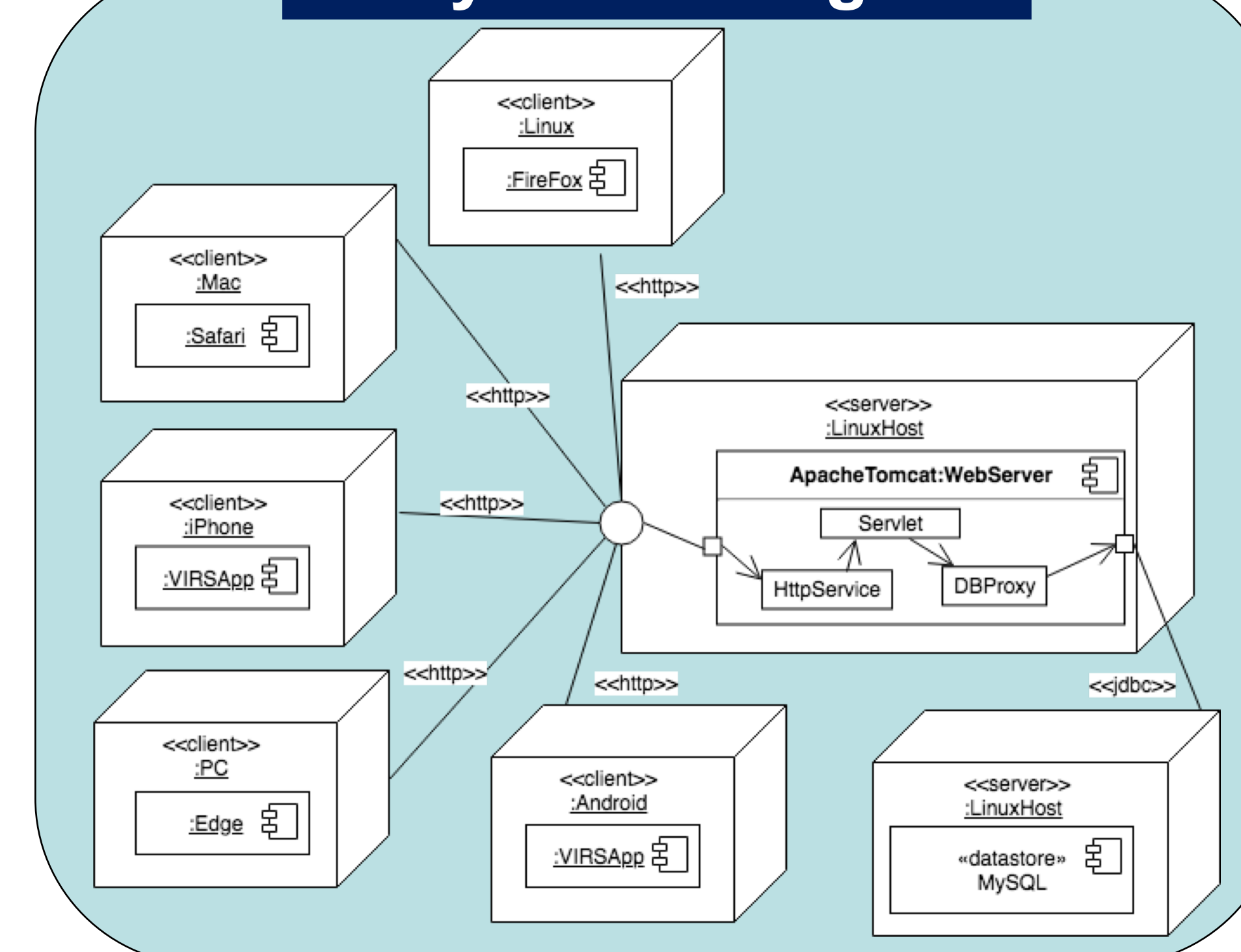
Test Report All Failed Passed

4 Passed 0 Failed 0 Skipped

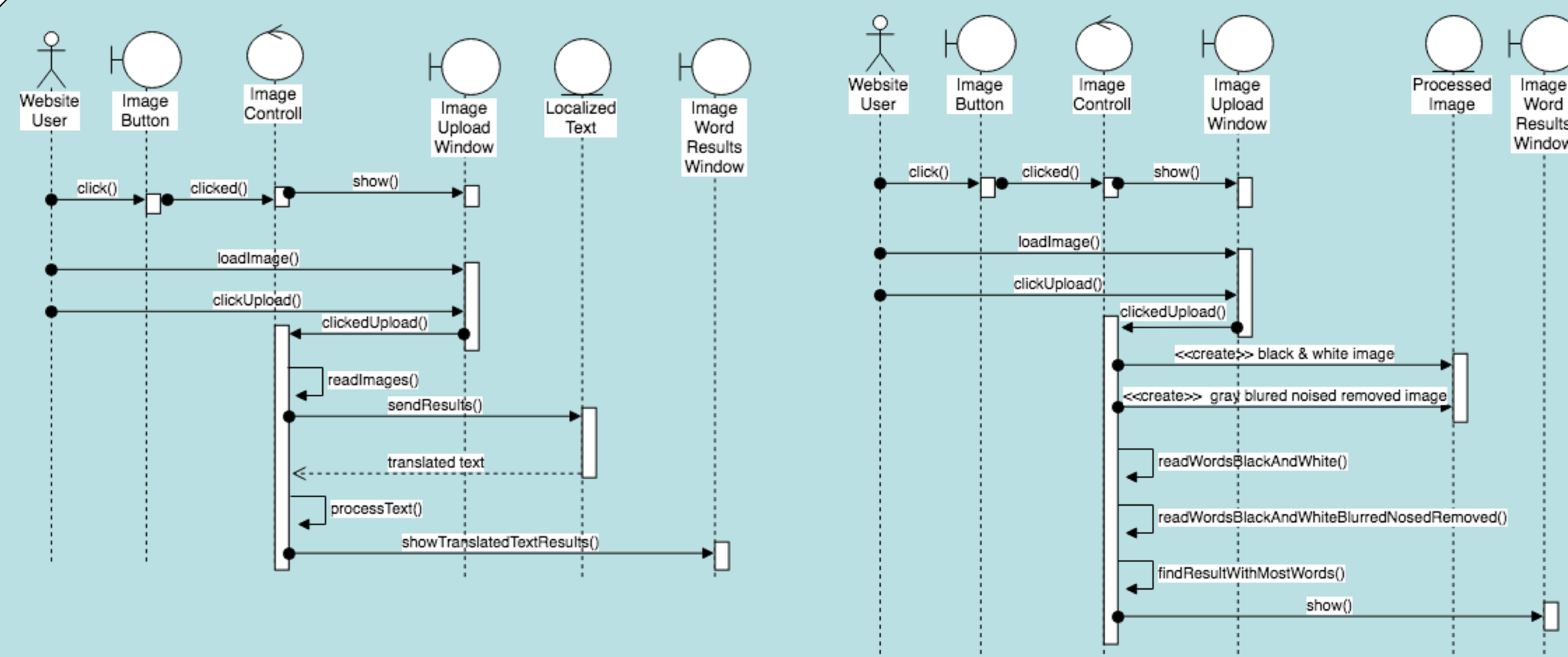
Method	Status	Duration
com.vir.controller.UserControllerTest.getUserTest	Passed	1ms
com.vir.controller.UserControllerTest.addUserTest	Passed	2ms
com.vir.controller.UserControllerTest.updateUserTest	Passed	13ms
com.vir.controller.UserControllerTest.removeUserTest	Passed	68ms

Account Management Unit Tests

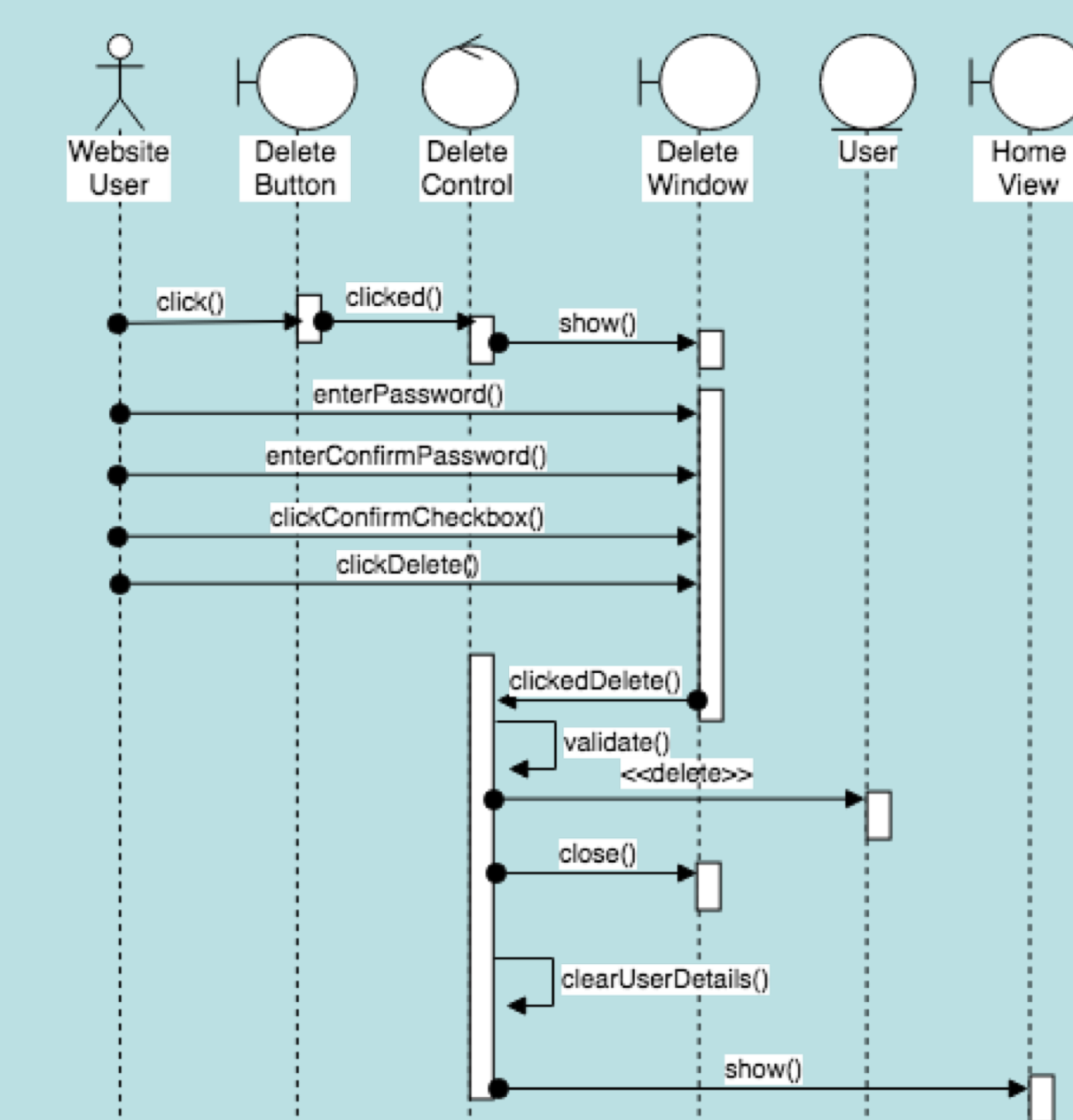
System Design



Implementation

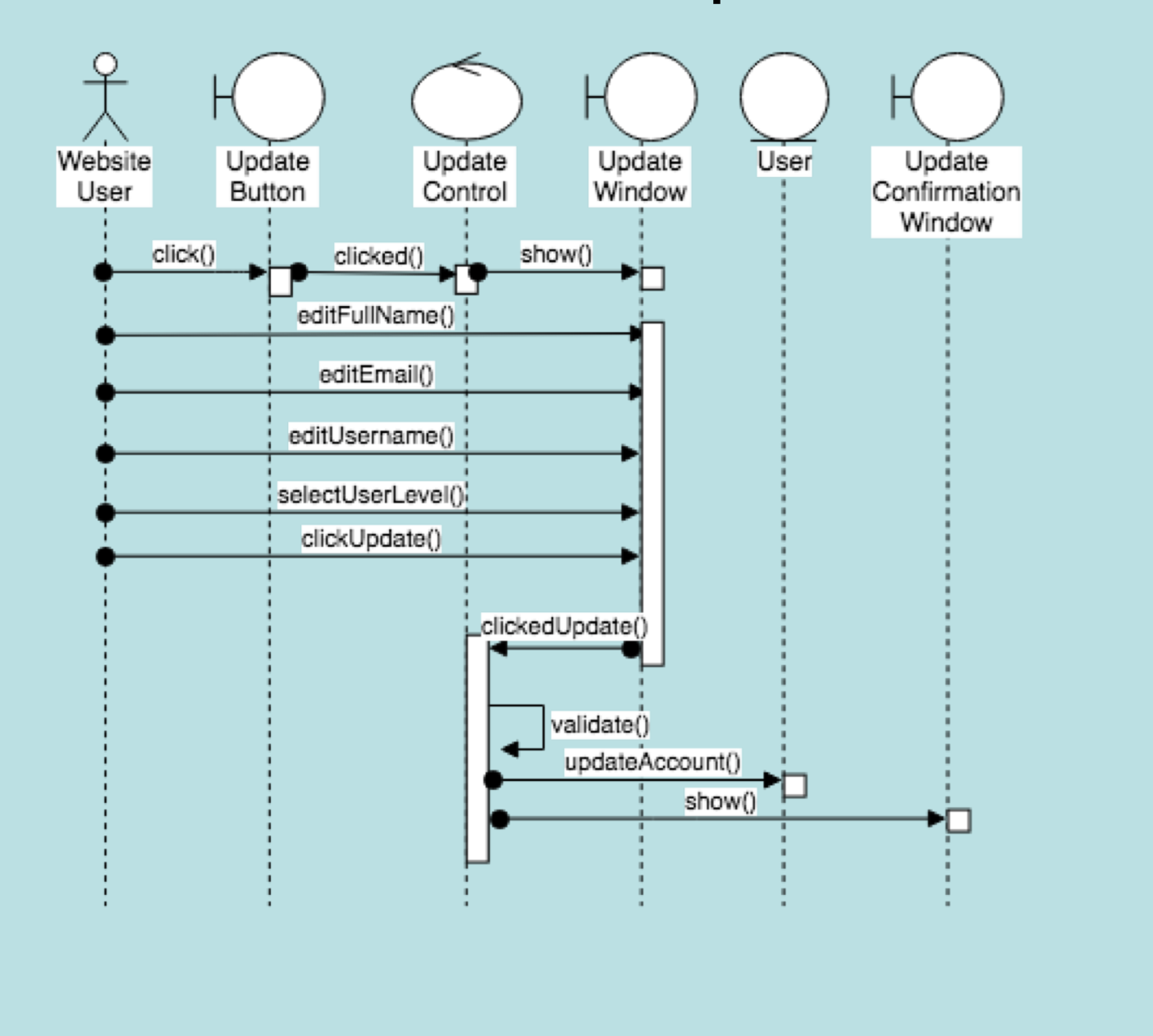


OCR Localized



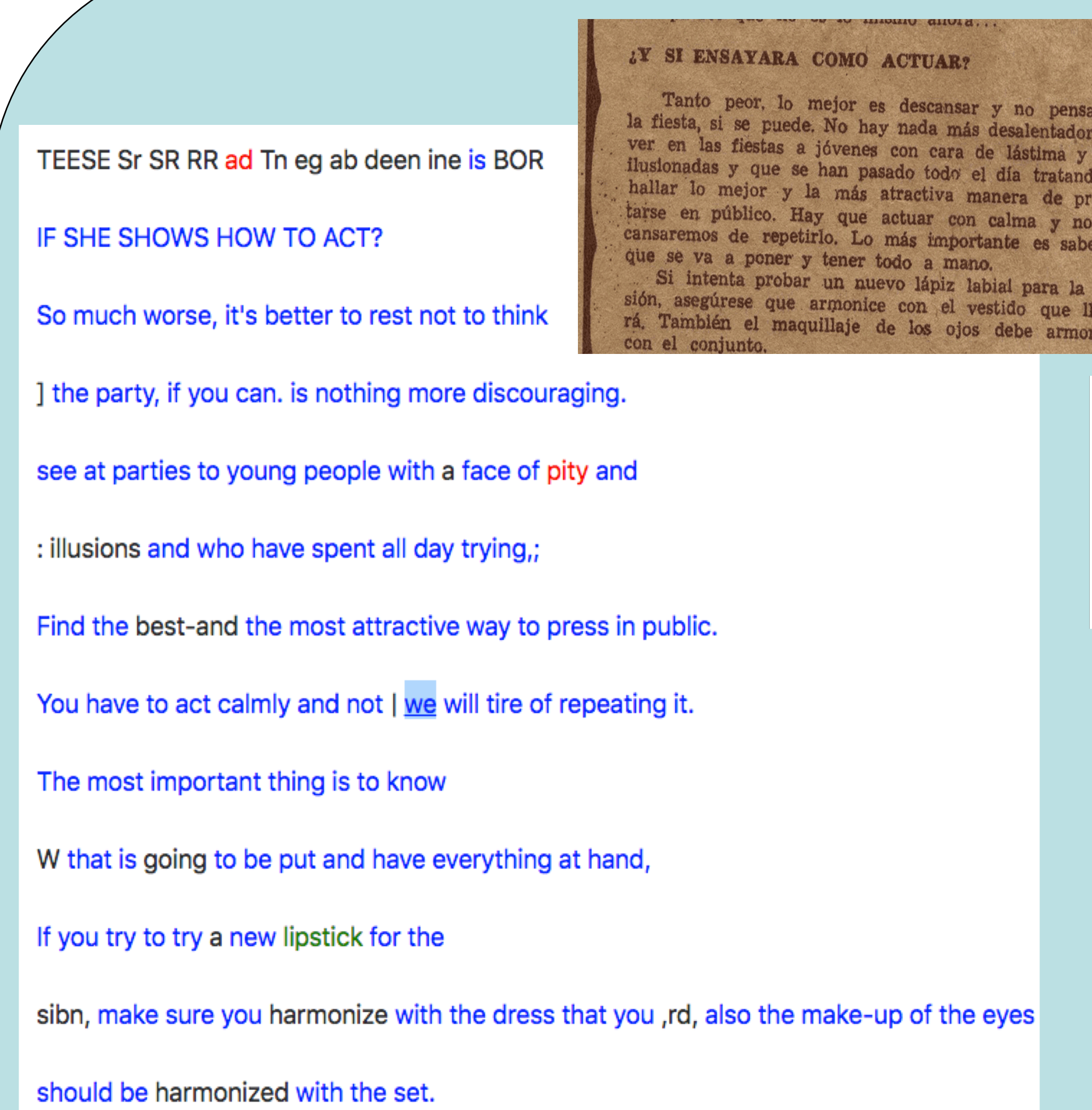
Delete Account

OCR Read Improvement



Update Account

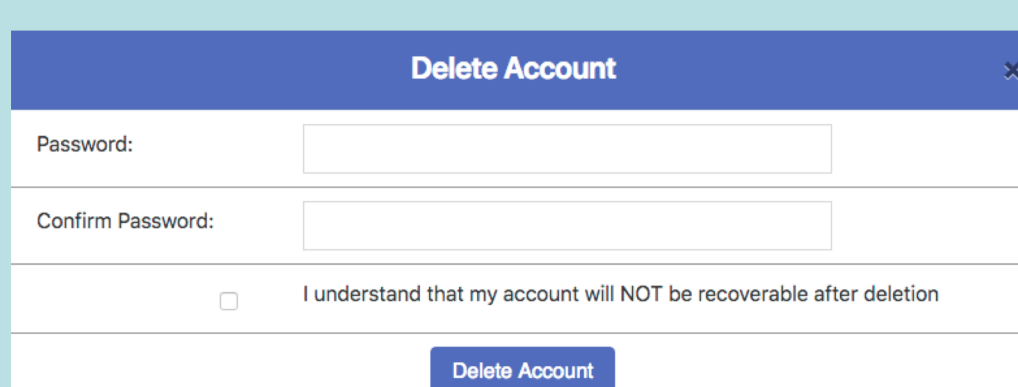
Screenshots



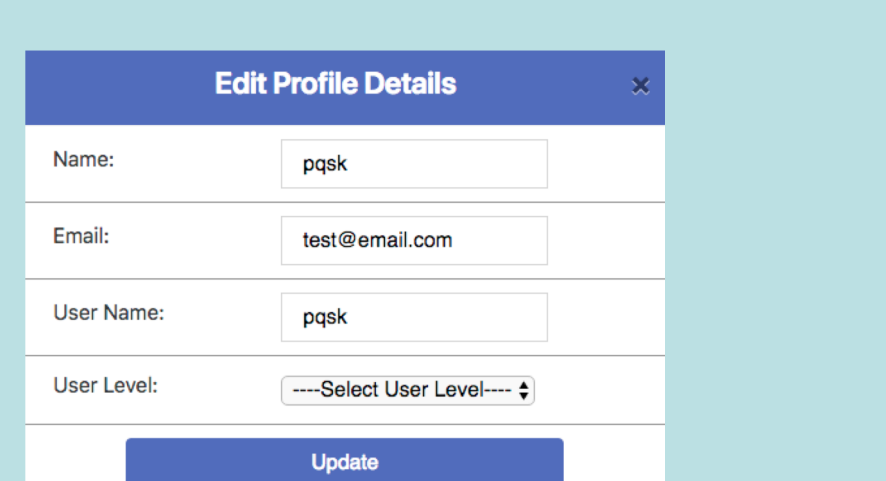
BAD FONT	GOOD FONT
Thick and Thin	Uniform Stroke
Bad Serif	Good Serif
Script	No Script
Too Tight	Just Right
Too Fat	Bold not Fat
Too Thin	Thin No More

BAD FONT GOOD FONT Thick and Thin
Uniform Stroke Bad Serif Good Serif
Qbeript No Script Too Tight Just Right
Too Fat Bold not Fat Too Thin | Thin No More

OCR Font Results



Delete Account



Edit Account

Summary

1. Users can now update/delete their account
2. Improved OCR results for low lighting, and fonts
3. OCR results translates all image text results

Acknowledgement

I thank Seyedjafar Ehsanzadehsorati for assistance, cooperation, and mentorship that I received throughout this process.