**Tasks:**

1. Install Appium (server & required tools) as described in presentation for lecture #1.
2. Setup Maven project for automated mobile app tests as was described in lecture #2.
3. Write source code follow by guide in lecture 2 (up to slide #23).
4. Make sure that you can run examples for native or web test on emulator as was discussed in lecture #2, and make sure that results are as expected.
5. Modify existing tests to run on a real device. What should be changed?

Yes, I changed device\_name from emulator-5554 to 894ec4aa

1. Connect a real device to Appium (describe required actions) and run tests. Are there any difference with run on emulator?

Yes, since I have Android 9 and ContactManage.apk is designed for lower versions the button ‘Add contact’ is not clicked there. Yet the web test completed ok.

1. Implement improvements that described in slides 26 – 50 of lecture #2 and were discussed in class, including the followings:
   1. Remove hardcoded values; move values of settings and parameters to external configuration files; implement reading of values from config. Files
   2. Improve source code structure: separate settings from tests itself and move them into main\java and test\java respectively
   3. Create unified driver initialization procedure that considers:
      1. Test for native and web mobile apps
      2. Android or iOS platforms
      3. Reading properties from config
      4. Using WebDriverWait object(s) instead of Thread.sleep
      5. DesiredCapabilities object can't contains non-NULL “app” or “browser” capabilities simultaneously (only one of them)
   4. Rewrite *Driver* using “singleton” pattern
   5. Implement verifications (do expected results meet?)
   6. Separate packages for web and native tests
   7. Use TestNG options for test run management
   8. Move set up and tear down procedures into separate class (“hooks”)
   9. Do not forget JavaDocs for classes and methods, and required comments as well
   10. Follow the code conventions
2. You can implement any other improvements that you suppose required/desired

**Reporting:**

1. Create a separate repository for automated mobile test tasks
2. Name this repository as “First name” + “Surename” + “Mobile”
3. Send the link to repository to trainer via skype
4. Use Git branches for home tasks for each of lectures (##2 & 3)
5. For tasks that implies just an answer (not a source code), please put a text document into root of repository. Provide answers for tasks where it required with appropriate item number.