

Java MQTT Light smart app

Small app designed to turn on the light with the pc waking up, and turn it off when pc will be shut down,

Sound simple

Things to overcome

- mqtt handling sending messages
Paho mqtt class generates a lot of lck garbage folders.
- swing tray handling
- swing timer to delay button call
- swing gui form Design
- swing preventing app shutdown

mqtt Paho client to avoid lck files just, add null in MQTTClient class call.

App Shutdown Call()

1. Create new Thread

Thread a = new Thread(() -> { sending });

2. Add Shutdown hook

Runtime.getRuntime().addShutdownHook(a)

I know that those stories should go other way around but in this example app was done first then i wrote those just to practise a little bit.

User Stories:

As User i want to automatically have my light on when i turn on pc so i can see

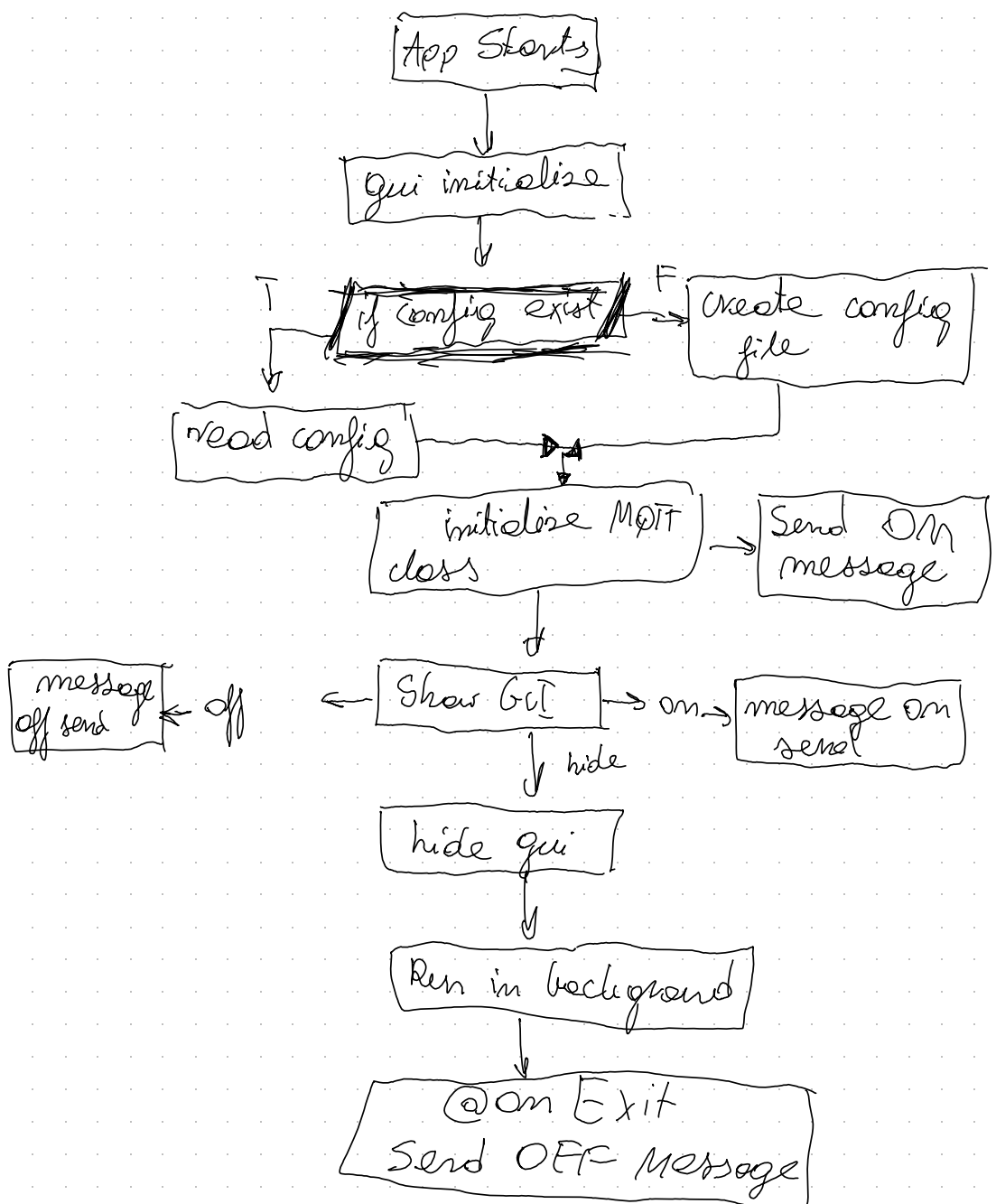
As User i want to turn off the light automatically when i turn off pc so i can go to bed

As User i want to modify my MQTT connection details

As User i want to modify on off when i want by gui so i can work

Flowchart:

App thrown to ^{OS} startup ↓



What do i learned

Creating jar file with the maven and maven structure of clean, compile, package. As well ass assembly with files.

I've refreshed a bit swing, and learned a bit how Tray works.

Also really nice thing was getting getting to know how Properties works and solving the problem with properties when app is packed into jar.

Terminating application and attaching an task on application exit.

Fixing config file inside JAR

1. Way move config file outside jar

Looks like resources inside a jar-file are read only. So if we want to store our config will be best to create the file outside the jar then act acording to it.

AAAAA

Under no circumstances you can write properties back into .jar file.

read inside resources Yes



app.jar

add resources NO

App folder System.getProperty("user.dir");

rewrite a bit the app config

File OutputStream →

FileInputStream ←

To run it use run. BAT → java -jar app.jar

check config file exist

NO

create config file