

Assignment 4

In this assignment we asked to do two tasks:

- 1) Add Gradle support.
- 2) Add ability for read data from SQL table (Data-Base), and add to GUI a login button to the SQL table.

Part A:

Gradle:

What is Gradle? Gradle is “*Gradle* is an advanced general purpose build management system based on Groovy and Kotlin. Gradle supports the automatic download and configuration of dependencies or other libraries. It supports Maven and Ivy repositories for retrieving these dependencies. This allows reusing the artifacts of existing build systems. Gradle supports multi-project and multi-artifact builds. Gradle has the notion of *projects* and *tasks*.”

Wiki Gradle - <https://en.wikipedia.org/wiki/Gradle>

We used Gradle for easy run tasks, when we run Gradle it will execute –

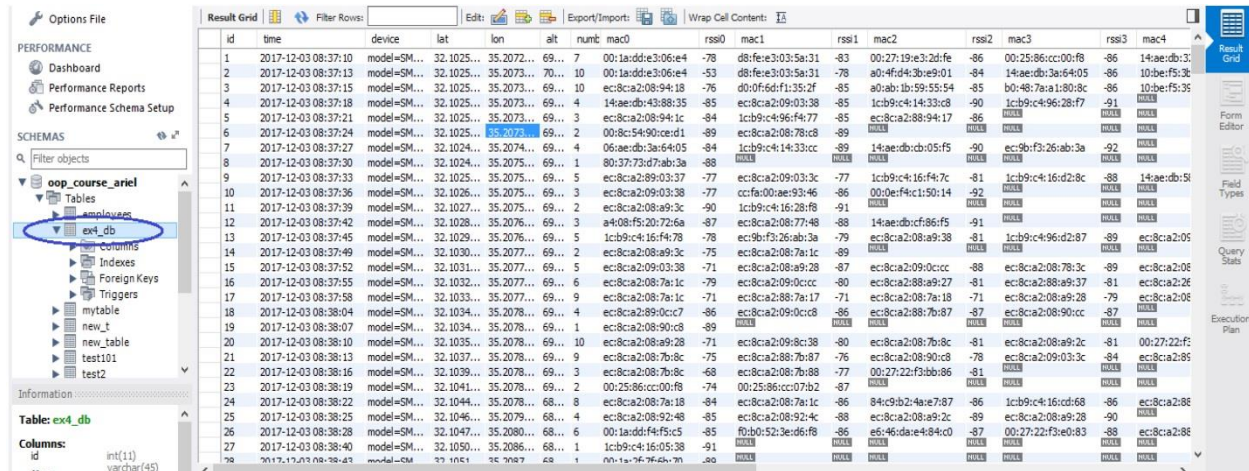
- 1) Junit Testing
- 2) Java documents
- 3) Jar
- 4) Running GUI

Link to download Gradle for Eclipse -

<https://projects.eclipse.org/projects/tools.buildship/downloads>

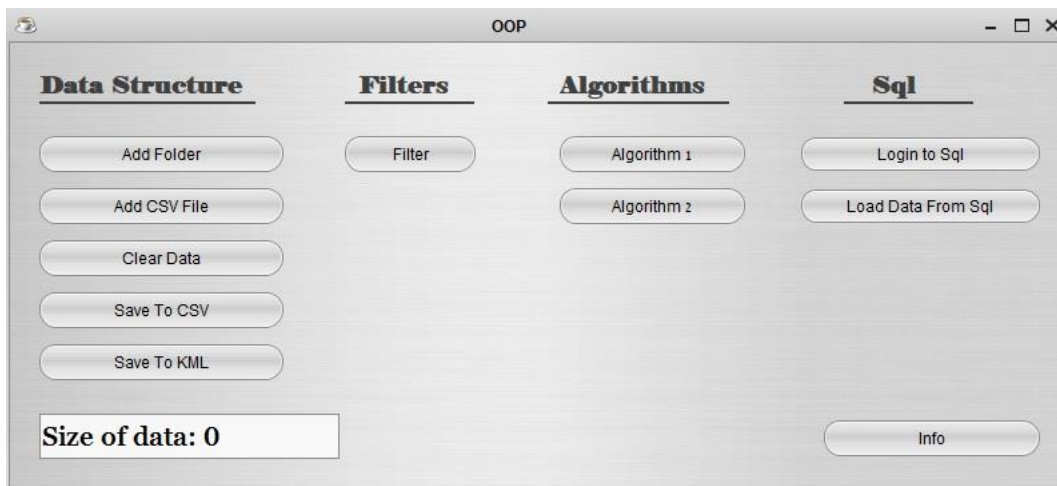
Part B:

Data-Base SQL Table:



id	time	device	lat	lon	alt	numt	mac0	rssi0	mac1	rssi1	mac2	rssi2	mac3	rssi3	mac4
1	2017-12-03 08:37:10	model=SM...	32.1025...	35.2072...	69...	7	00:1addd3:06:e4	-78	d8:fe:e3:03:5a:31	-83	00:27:19:e3:2d:fe	-86	00:25:86:cc:00:f8	-96	14:aed:b3:
2	2017-12-03 08:37:13	model=SM...	32.1025...	35.2073...	70...	10	00:1addd3:06:e4	-53	d8:fe:e3:03:5a:31	-78	a0:4f:d4:3b:e9:01	-84	14:aed:b3:64:05	-86	10:be:f5:3:
3	2017-12-03 08:37:15	model=SM...	32.1025...	35.2073...	69...	10	ec:8ca2:08:94:18	-76	d0:0f:6d:f1:35:2f	-85	a0:ab:1b:59:55:54	-85	b0:48:7a:18:08:c	-86	10:be:f5:3:
4	2017-12-03 08:37:18	model=SM...	32.1025...	35.2073...	69...	4	14:aed:b3:43:88:35	-85	ec:8ca2:09:03:38	-85	1cb9:c4:14:33:c8	-90	1cb9:c4:96:28:f7	-91	mac4
5	2017-12-03 08:37:21	model=SM...	32.1025...	35.2073...	69...	3	ec:8ca2:08:94:1c	-84	1cb9:c4:96:f4:77	-85	ec:8ca2:88:94:17	-86	mac4	mac4	mac4
6	2017-12-03 08:37:24	model=SM...	32.1025...	35.2073...	69...	2	00:8c:54:90:ce:d1	-89	ec:8ca2:08:78:c8	-89	mac4	mac4	mac4	mac4	mac4
7	2017-12-03 08:37:27	model=SM...	32.1024...	35.2074...	69...	4	06:aed:b3:3a:64:05	-84	1cb9:c4:14:33:cc	-89	14:aed:b3:db:05:f5	-90	ec:9b:f3:26:ab:3a	-92	mac4
8	2017-12-03 08:37:30	model=SM...	32.1024...	35.2075...	69...	1	80:37:73:d7:ab:3a	-88	mac4	mac4	mac4	mac4	mac4	mac4	mac4
9	2017-12-03 08:37:33	model=SM...	32.1025...	35.2075...	69...	5	ec:8ca2:89:03:37	-77	ec:8ca2:09:03:3c	-77	1cb9:c4:16:f4:7c	-81	1cb9:c4:16:d2:8c	-88	14:aed:b3:5:
10	2017-12-03 08:37:36	model=SM...	32.1026...	35.2075...	69...	3	ec:8ca2:09:03:38	-77	cc:fa:00:ae:93:46	-86	00:0e:f4:c1:50:14	-92	mac4	mac4	mac4
11	2017-12-03 08:37:39	model=SM...	32.1027...	35.2075...	69...	2	ec:8ca2:08:a9:3c	-90	1cb9:c4:16:28:f8	-91	mac4	mac4	mac4	mac4	mac4
12	2017-12-03 08:37:42	model=SM...	32.1028...	35.2076...	69...	3	a4:08:f5:20:72:6a	-87	ec:8ca2:08:77:48	-88	14:aed:b3:cf:86:f5	-91	mac4	mac4	mac4
13	2017-12-03 08:37:45	model=SM...	32.1029...	35.2076...	69...	5	1cb9:c4:16:f4:78	-78	ec:9b:f3:26:ab:3a	-79	ec:8ca2:08:a9:38	-81	1cb9:c4:96:d2:87	-89	ec:8ca2:08:
14	2017-12-03 08:37:49	model=SM...	32.1030...	35.2077...	69...	2	ec:8ca2:08:a9:3c	-75	ec:8ca2:08:7a:1c	-89	mac4	mac4	mac4	mac4	mac4
15	2017-12-03 08:37:52	model=SM...	32.1031...	35.2077...	69...	5	ec:8ca2:09:03:38	-71	ec:8ca2:08:a9:28	-87	ec:8ca2:09:0c:cc	-88	ec:8ca2:08:78:3c	-89	ec:8ca2:08:
16	2017-12-03 08:37:55	model=SM...	32.1032...	35.2077...	69...	6	ec:8ca2:08:7a:1c	-79	ec:8ca2:09:0c:cc	-80	ec:8ca2:88:a9:27	-81	ec:8ca2:88:a9:37	-81	ec:8ca2:26:
17	2017-12-03 08:37:58	model=SM...	32.1033...	35.2077...	69...	9	ec:8ca2:08:7a:1c	-71	ec:8ca2:88:7a:17	-71	ec:8ca2:08:7a:18	-71	ec:8ca2:08:a9:28	-79	ec:8ca2:08:
18	2017-12-03 08:38:04	model=SM...	32.1034...	35.2078...	69...	4	ec:8ca2:89:0c:c7	-86	ec:8ca2:09:0c:c8	-86	ec:8ca2:88:7b:87	-87	ec:8ca2:08:90:cc	-87	mac4
19	2017-12-03 08:38:07	model=SM...	32.1034...	35.2078...	69...	1	ec:8ca2:08:90:c8	-89	mac4	mac4	mac4	mac4	mac4	mac4	mac4
20	2017-12-03 08:38:10	model=SM...	32.1035...	35.2078...	69...	10	ec:8ca2:08:a9:28	-71	ec:8ca2:09:8c:38	-80	ec:8ca2:08:7b:8c	-81	ec:8ca2:08:a9:2c	-81	00:27:22:f:
21	2017-12-03 08:38:13	model=SM...	32.1037...	35.2078...	69...	9	ec:8ca2:08:7b:8c	-75	ec:8ca2:88:7b:87	-76	ec:8ca2:08:90:c8	-78	ec:8ca2:09:03:3c	-84	ec:8ca2:85:
22	2017-12-03 08:38:16	model=SM...	32.1039...	35.2078...	69...	3	ec:8ca2:08:7b:8c	-68	ec:8ca2:08:7b:88	-77	00:27:22:f3:bb:86	-81	mac4	mac4	mac4
23	2017-12-03 08:38:19	model=SM...	32.1041...	35.2078...	69...	2	00:25:86:cc:00:f8	-74	00:25:86:cc:00:b2	-87	mac4	mac4	mac4	mac4	mac4
24	2017-12-03 08:38:22	model=SM...	32.1044...	35.2078...	69...	8	ec:8ca2:08:7a:18	-84	ec:8ca2:08:7a:1c	-86	84:c9:b2:4a:e7:87	-86	1cb9:c4:16:cd:68	-86	ec:8ca2:88:
25	2017-12-03 08:38:25	model=SM...	32.1046...	35.2079...	69...	4	ec:8ca2:08:92:48	-85	ec:8ca2:08:92:4c	-88	ec:8ca2:08:a9:2c	-89	ec:8ca2:08:a9:28	-90	mac4
26	2017-12-03 08:38:28	model=SM...	32.1047...	35.2080...	69...	6	00:1a:dd:f4:f5:c5	-85	f0:b0:52:3e:d6:f8	-86	e6:46:da:e4:84:c0	-87	00:27:22:f3:e0:83	-88	ec:8ca2:88:
27	2017-12-03 08:38:40	model=SM...	32.1050...	35.2086...	69...	1	1cb9:c4:16:05:38	-91	mac4	mac4	mac4	mac4	mac4	mac4	mac4
28	2017-12-03 08:38:43	model=SM...	32.1051...	35.2087...	69...	1	00:1a:dd:f4:f5:c5	-80	mac4	mac4	mac4	mac4	mac4	mac4	mac4

We added a Login button which ask for User, Password, IP and Port after you insert the login information the system will connect to the table only if the table exists and all the information are correct.



OOP

Data Structure **Filters** **Algorithms** **Sql**

Add Folder Filter Algorithm 1 Login to Sql

Add CSV File Algorithm 2 Load Data From Sql

Clear Data

Save To CSV

Save To KML

Size of data: 0 Info

After login you can press "Load Data From Sql" for loading all data from the table to our data structure.