MINISTERUL EDUCAȚIEI
AL REPUBLICII MOLDOVA
UNIVERSITATEA TEHNICĂ
A MOLDOVEI

DEPARTAMENTUL INGINERIA
SOFTWARE ȘI AUTOMATICĂ

MINISTRY OF EDUCATION
OF THE REPUBLIC OF MOLDOVA
TECHNICAL UNIVERSITY
OF MOLDOVA

Discipline: Network programming

Laboratory Work nr.2

Topic: Metrics Aggregator.

Done by student: _____(Untilov Andrei, gr.FAF-151)

Verified by: _____(Gavrișco Alexandru)

Chisinau 2018

Contents

1 Topic

Metrics Aggregator.

2 Tasks

1. Request your secret key at https://desolate-ravine-43301.herokuapp.com/, in response you'll receive a list of URLs (for each device);
2. Using your secret key, request data from all devices concurrently;
3. If you get an error related to your access key, go back to step 1 and retry;
4. Parse data from all devices;
5. Aggregate all responses ordering by sensor type.

3 Task Implementation

3.1 Request your secret key

The request of secret key was performed in LinkConnector.class , extending AsyncTask.class . Basically was created a HttpClient which exectued an HttpPost request, providing the URL. From response was extracted the secret key as follows "response.getFirstHeader("Session").getValue()". Also, has been retrived the list of links from the provided json, and converted to Link objects.

3.2 Using your secret key, request data from all devices concurrently

In a separated thread, for every Link from linksList was exectued a GET request and retrieved devices data.The code is provided by method "performTask" of DeviceConnector.class.

3.3 Parse data from all devices

Every response is handled according to the detected type of data(CSV, XML or JSON),and converted to Devices objects.The code is provided by methods "parseCSV" , "parseXML" and "parseJSON" of DeviceConnector.class.

3.4 Aggregate all responses ordering by sensor type.

After the conversion to Java objects, the data is aggregated. The code is provided by method "aggregateData" of DeviceConnector.class.