



Ministry of Education of Republic of Moldova

Technical University of Moldova

Faculty of Computers, Informatics and Microelectronics

Software Engineering Department

Web Programming

Laboratory work #2

SELF-MADE BROWSER

Author:

Turcanu Ion gr. FAF-191

Supervisor:

Alexei Șerșun

Chișinău 2022

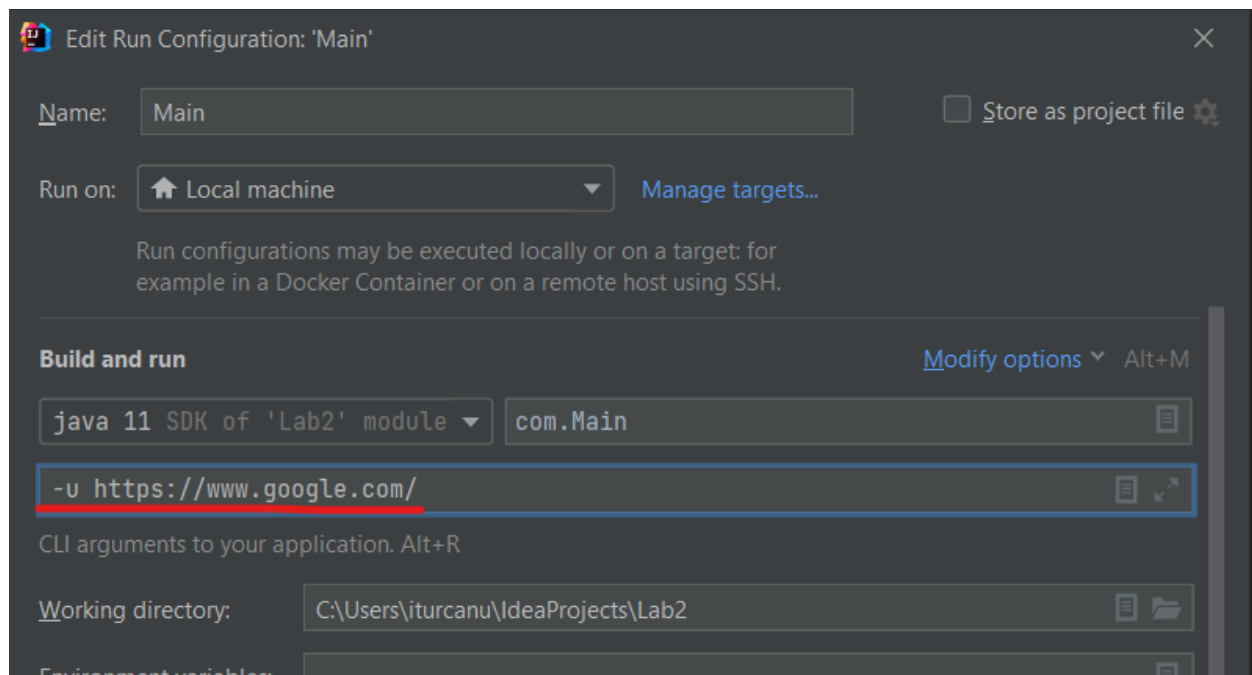
Task

Your task for this lab is:

- You have to write a command line program, using go2web as a starting point;
- The responses from requests should be human-readable (e.g. no HTML tags in the output);
- The program should implement the following CLI:
 - go2web -u <URL> - make an HTTP request to URL and print the response;
 - go2web -s <search-term> - search the term using your favorite search engine and print top 10 results
 - go2web -h - show help

Results

I have chosen Java as a programming language and maven for importing libraries. To extract the html out of the response I used jsoup library.



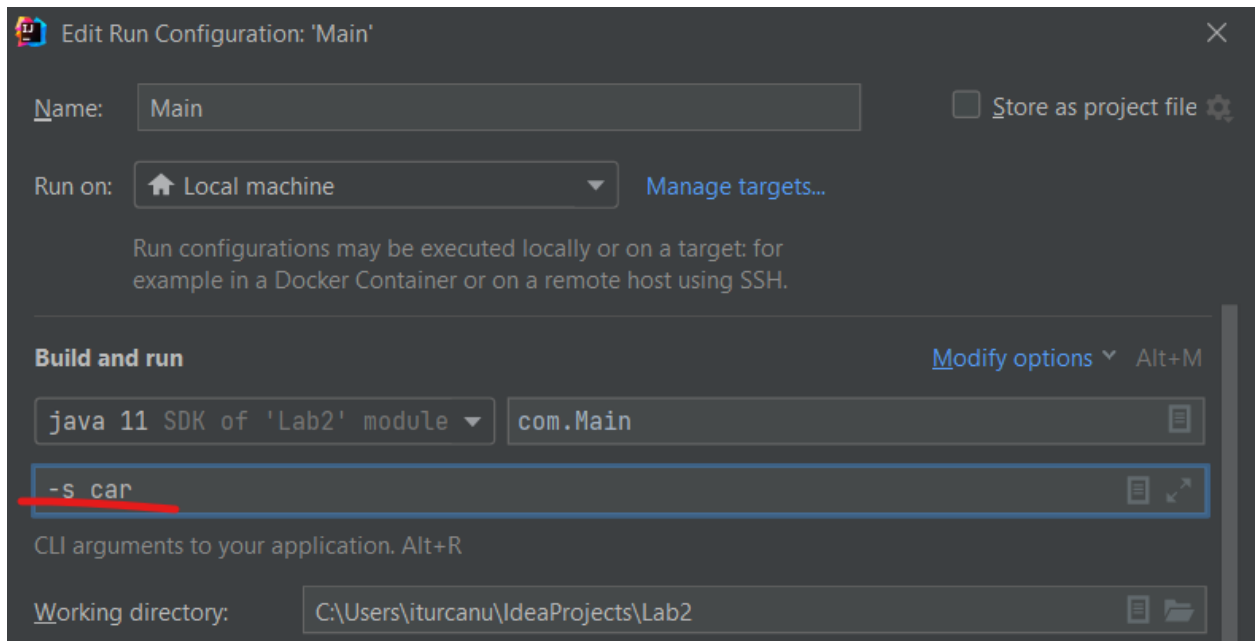
Here is the result:

```

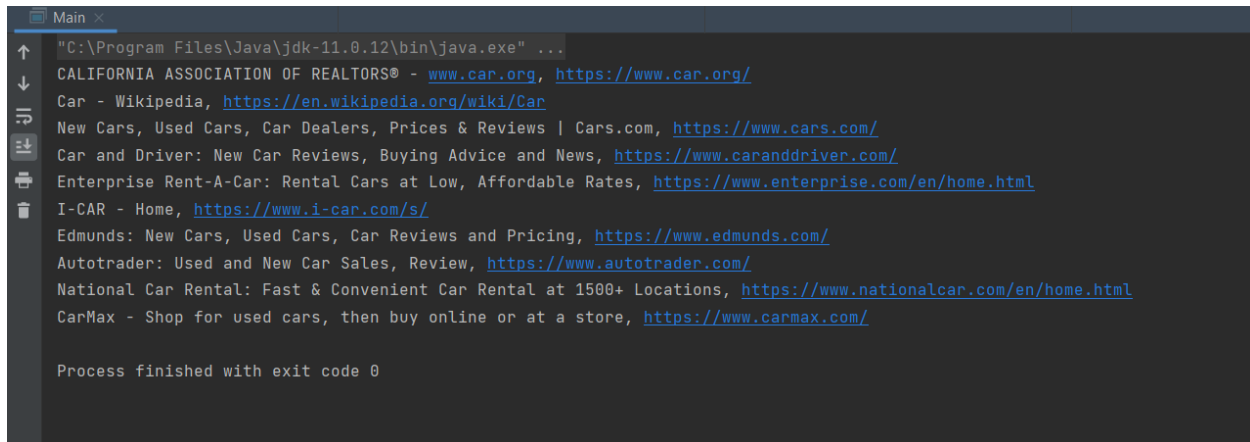
Main
"C:\Program Files\Java\jdk-11.0.12\bin\java.exe" ...
<!doctype html>
<html itemscope itemtype="http://schema.org/WebPage" lang="ro-MD">
<head>
<meta content="text/html; charset=UTF-8" http-equiv="Content-Type">
<meta content="//images/branding/google/1x/google_standard_color_128dp.png" itemprop="image">
<title>Google</title>
<script nonce="n0mCE/yAA/rEY1Ew5Yt9bw==">(function(){window.google={kEI:"dcgpYqSWHpeulwScsZb4Aw",kEXPI:"0,18168,1284368,56873,6058,207,2414,2390,2316,383,246,5,1354,4013,1237
var f=this||self;var h,k=[];function l(a){for(var b;a&&(!a.getAttribute("eid"))){a=a.parentNode;return b||h}function m(a){for(var b=null;a&&(!a.getAttribute
function n(a,b,c,d,g){var e="";c||-1==b.search("&ei=")||e="&ei="+l(d,-1==b.search("&ei=")&&(d=m(d))&&(e+="&ei="+d));d="";!c&&f._csid&&-1==b.search("&csid=")&&"slh"!=g
google.y=[];google.sx=[];google.x=function(a,b){if(a)var c=a.id;else do c=Math.random();while(google.y[c]=[a,b];return!1};google.sx=function(a){google.sx.push(a)};
document.documentElement.addEventListener("submit",function(b){var a;if(a=b.target){var c=a.getAttribute("data-submitfalse");a="1"===c||"q"===c&&a.elements.q.value?!0:!1}else
<style>#gbar,#guser{font-size:13px;padding-top:1px !important;}#gbar{height:22px}#guser{padding-bottom:7px !important;text-align:right}.gbh,.gbd{border-top:1px solid #c9d7f1;
</style>
<style>body,td,a,p,.h{font-family:arial,sans-serif}body{margin:0;overflow-y:scroll}#ggg{padding:3px 8px 0}td{line-height:.8em}.gac_m td{line-height:1.7px}form{margin-bottom:20px}
<script nonce="n0mCE/yAA/rEY1Ew5Yt9bw==">(function(){window.google.erd={jsr:1,bv:1542,de:true};
var f=this||self;var g,h,k=null!==(g=f.mei)&&void 0!==(g?g:1,l=null!==(h=f.sdo)&&void 0!==(h?h:!0,p=b,q,r=google.erd,u=r.jsr;google.ml=function(a,b,d,m,c){c=void 0===c?2:c;b&&(q=
e);var n=a.fileName;n&&(b+="&script="+c(n),e&&n==window.location.href&&(e=document.documentElement.outerHTML.split("\n")[e],b+="&cad="+c(e?e.substring(0,300)):"No script found.
</head>
<body bgcolor="#ffff">
<script nonce="n0mCE/yAA/rEY1Ew5Yt9bw==">(function(){var src="/images/nav_logo229.png";var iesg=false;document.body.onload = function(){window.n && window.n()};if (document.im
if (!iesg){document.f&&document.f.q.focus();document.gbqf&&document.gbqf.q.focus();}
})();</script>
<div id="mngb">
<div id="gbar">
<nobr>
<b class="gb1">Cautare</b>

```

For the second command I used google search Api in order to extract the top 10 results.



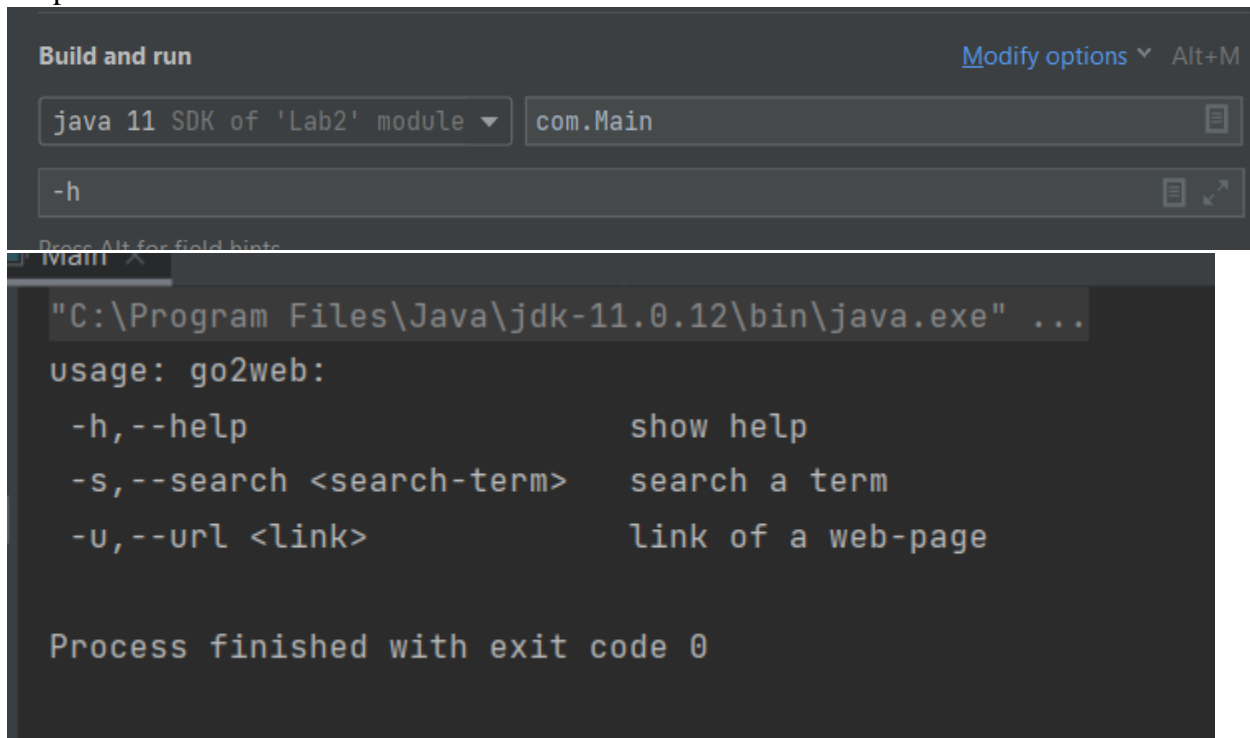
Result: title + link



```
"C:\Program Files\Java\jdk-11.0.12\bin\java.exe" ...
CALIFORNIA ASSOCIATION OF REALTORS® - www.car.org, https://www.car.org/
Car - Wikipedia, https://en.wikipedia.org/wiki/Car
New Cars, Used Cars, Car Dealers, Prices & Reviews | Cars.com, https://www.cars.com/
Car and Driver: New Car Reviews, Buying Advice and News, https://www.caranddriver.com/
Enterprise Rent-A-Car: Rental Cars at Low, Affordable Rates, https://www.enterprise.com/en/home.html
I-CAR - Home, https://www.i-car.com/s/
Edmunds: New Cars, Used Cars, Car Reviews and Pricing, https://www.edmunds.com/
Autotrader: Used and New Car Sales, Review, https://www.autotrader.com/
National Car Rental: Fast & Convenient Car Rental at 1500+ Locations, https://www.nationalcar.com/en/home.html
CarMax - Shop for used cars, then buy online or at a store, https://www.carmax.com/

Process finished with exit code 0
```

Help command:



```
Build and run Modify options Alt+M
java 11 SDK of 'Lab2' module com.Main
-h
Press Alt for field hints

"C:\Program Files\Java\jdk-11.0.12\bin\java.exe" ...
usage: go2web:
    -h,--help                show help
    -s,--search <search-term> search a term
    -u,--url <link>          link of a web-page

Process finished with exit code 0
```

3 Conclusion

After doing this lab I learned how to interact with java commons cli library, created my personal options, however, the biggest challenge was to run program from terminal, due to the fact that I used Maven, target jar was difficult to execute manually, that's why I stucked to passing options in IDE.