


Going Global

Introduction

Description

An interactive Java file that outputs itinerary given an input location.


A trip planner that allows you to input a city and what type of business you are looking for then returns the best and worst rated attractions and an itinerary for what order visit the attractions.

- 
- Graph Algorithms
 - Information Networks

Features

Programming elements based on NETS 150 topics.


The Information Network is implemented by requesting information from the Yelp API that is connected by location and other similarities. Graph algorithms are used to output an itinerary with the shortest route.

- 
- Graphical User Interface
 - Dijkstra's
 - Yelp API

Requirements

Necessary software and tools.

Our program can be run on any IDE that supports Java, but was programmed with Eclipse and IntelliJ in mind. There are additional jar files necessary that can be found [here](#).

- 
- Preferred IDE: IntelliJ or Eclipse
 - Java
 - json from group org.json (version 20220320)

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Getting Started

1. Project Download:

Once you download the zipfile and unzipped it, ensure you have downloaded:

- URLGetter.java
- YelpAPI.java
- YelpBusiness.java
- YelpTester.java
- Edge.java
- Itinerary.java
- RunYelp.java



2. JSON Jar File

Make sure you have downloaded the following jar file from the following link and that it is in the same file location as the project.

- json from group org.json (version 20220320)

Download from [website](#)

json from group org.json (version 20220320)

JSON is a light-weight, language independent, data interchange format. See <http://www.JSON.org/> The files in this package implement JSON encoders/decoders in Java. It also includes the capability to convert between JSON and XML, HTTP headers, Cookies, and CDL. This is a reference implementation. There is a large number of JSON packages in Java. Perhaps someday the Java community will standardize on one. Until then, choose carefully. The license includes this restriction: "The software shall be used for good, not evil." If your conscience cannot live with that, then choose a different package.

13962 downloads

★★★★☆

Group: org.json Artifact: json

Show all versions Show documentation Show source

Show build tool code

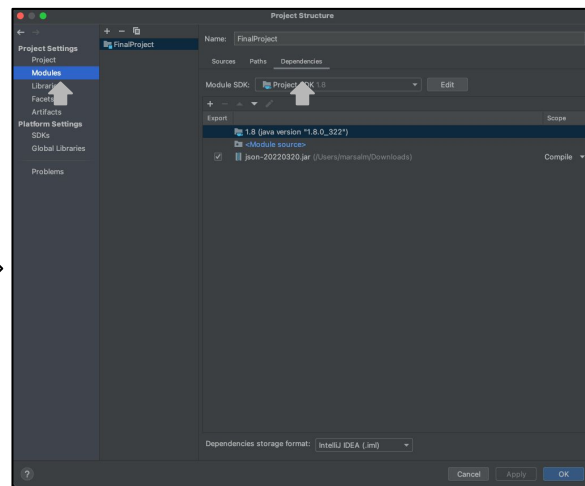
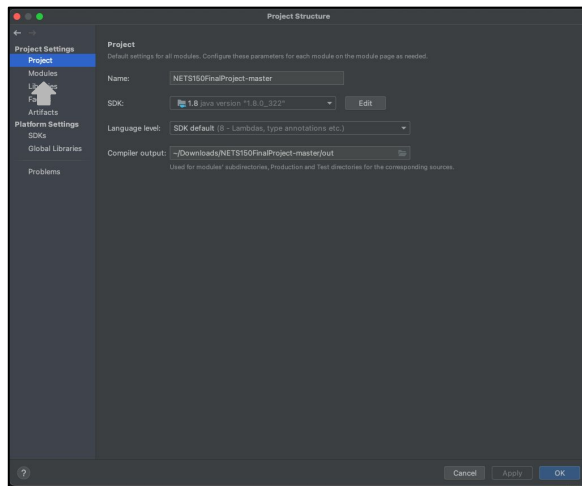
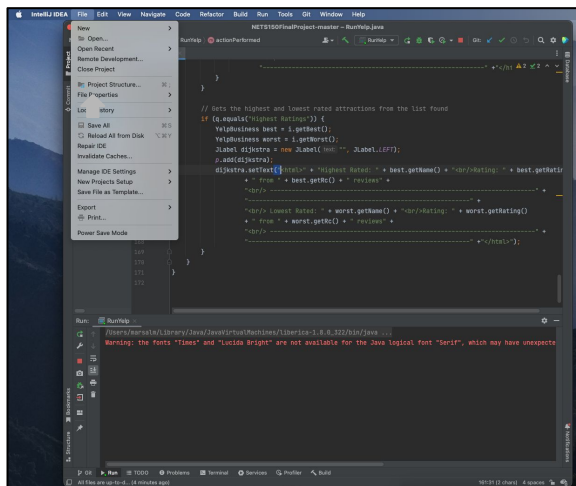
Download json.jar (20220320) Add to Project

Artifact ID: json
Group: org.json
Version: 20220320
Last update: 20. March 2022
Organization: not specified
URL: <https://github.com/douglasrockford/JSON-java>
License: The JSON License
Dependencies amount: 0
Dependencies: No dependencies
There are maybe transitive dependencies!

JSON Jar File Download:

Once you open ensure the jar file is imported to the project with the following steps:

File -> Project Structure -> Modules -> Dependencies -> make sure json-20220320.jar is checked then click "Apply" then "OK"



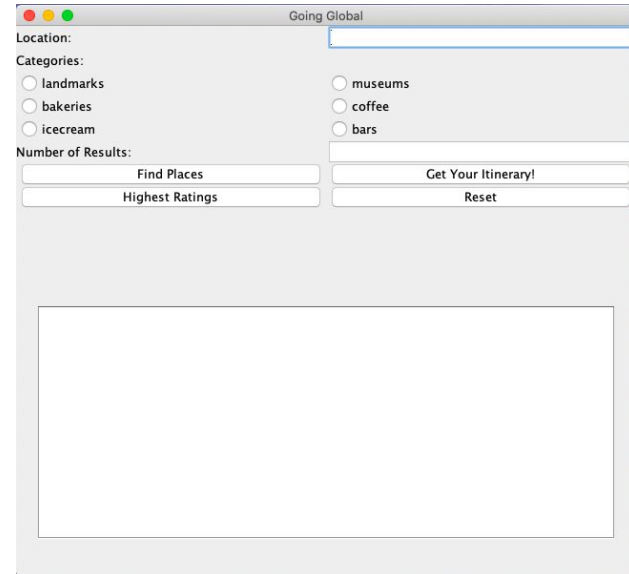
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Using the Interface

1. Run "RunYelp.java" to begin our program.
This will allow various inputs:

- Location: any city
- Type of attraction: Choose from options
- Number results: Choose what you want to limit the returned results to
- Find Attractions: Return the number of locations requested from YelpAPI
- Get your itinerary: Finds shortest path from the Worst Rated destination in your results to the Best Rated
- Highest Ratings: Returns the Best Rated and Worst Rated attractions in your results list

User Interface:



The screenshot shows a Java Swing window titled "Going Global". It contains the following elements:

- Location:** A text input field.
- Categories:** A group of radio buttons for selecting attraction types: landmarks, museums, bakeries, coffee, icecream, and bars.
- Number of Results:** A text input field.
- Action Buttons:** Two buttons labeled "Find Places" and "Get Your Itinerary!".
- Reset Button:** A button labeled "Reset".
- Output Area:** A large empty rectangular box at the bottom for displaying results.

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Dijkstra's

1. Make Graph:

- Each business returned in your list is a node
- An edge is created from Node u to Node v , if u is lower rated than v
- There is no edge from the Worst to Best to ensure path greater than 2



2. Run Dijkstra's Algorithm

- Will begin with Worst Rated as the source and with the Best Rated as the target
- Find the shortest path from the source to every other node using a PriorityQueue
- "Get Your Itinerary" Button

Result:

The screenshot shows a web application titled "Going Global". It has a search bar with "philadelphia" entered. Below the search bar, there are two columns of category selection buttons: "landmarks" (selected), "bakeries", "restaurants", "museums", "coffee", and "bars". A "Number of Results:" field is set to "5". There are two buttons: "Find Places" and "Highest Ratings". A "Get Your Itinerary!" button is also present, with a "Reset" button below it. The results section shows two items:

- 2: Independence Hall
Rating: 4.5 stars from 353 reviews
Address:
520 Chestnut St
Philadelphia, PA 19106
- 3: Eastern State Penitentiary Historic Site
Rating: 4.5 stars from 837 reviews
Address:
2027 Fairmount Ave
Philadelphia, PA 19130