



macOS and iOS operating systems

Lab 3 (Playground)

Holiday Travel

Introduction

Nowadays lot of us missing about great holiday. Currently we can't travel to other countries, but still we can dreaming and planning. Let's make some cool travel app.

Run Playground app (you can use online version here: <http://online.swiftplayground.run>) and complete the following tasks:

Data model (1 point)

City model object should contain: id, name, description, latitude, longitude, list of keyword/tag (such as seaside, party, sport, music, nature etc)

Create array with 20 cities.

Search (1 point)

- create func with name as parameter which return list of cities with searched name
- create func with keyword as parameter which return list of cities which contain specific keyword (in keyword list)

Distance (1 point)

- create func which calculate distance between two cities based on coordinates
- create func with user coordinates as parameter and display the closest and farthest city
- create func which display two farthest cities from city's array

Extend data model (1 point)

Extend City data model with list of locations, which should contain id, type (such as restaurants, pubs, museums, monuments), name, rating (from 1 to 5).

Advance search (1 point)

- create func which display list of cities which have restaurants with 5 star rating
- create func with city as parameter and return list of related locations sorted by rating
- create func which display all cities from array with information how many location with 5 star rating they have. Display this locations.

Bibliography

- Excerpt From: Apple Education. "App Development with Swift". Apple Inc. - Education, 2019. Apple Books.
- "The Swift Programming Language. Swift 4.0.3 Edition" Apple Inc. - Education, 2014. iBooks.