

# City Tour Planner

Final Project - University of Leicester

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# About City Tour Planner

- ▶ An android application to help users plan short one-day trips within a city
- ▶ The users get the flexibility to plan custom trips around their individual daily routine

# Motivation

- ▶ The computing industry has undergone a major paradigm shift from the use of PCs to smart mobile phones
- ▶ Finding time to attend to hobbies in today's fast day-and-age is seldom possible
- ▶ Build upon the ideas of already existing trip planner apps but with a different objective - single day trips of a particular city
- ▶ Users will not have to set aside time beforehand for exploring a city. Can use the trip planner to create trips on the go
- ▶ Will save time and effort involved in free-style trips and also allow for more informed decision-making

# Literature Review

1. Sygic Travel (by Sygic) [1]
2. RoadTrippers [2]
3. Triplt [3]

Brief discussion coming up...

# Sygyic

- ▶ Founded in 2004
- ▶ Became the first company to launch GPS navigation for the iPhone in 2009
- ▶ Expanded services to travel planning and management in 2016 (**Sygyic Travel**)
- ▶ Sygyic Travel is only one of the products of this company, there are many more

# RoadTrippers

- ▶ Founded in 2011
- ▶ Lets users plan road trips in the US and Canada
- ▶ Originally a web application but launched an iPhone app in November 2012

# Triplt

- ▶ Automates the creation of a trip itinerary
- ▶ Users need to forward confirmation emails to a designated email address: [plans@tripit.com](mailto:plans@tripit.com)
- ▶ Triplt will create an itinerary with all travel plans at one place

# Where does our app come in?

- ▶ Helps users plan trips, **FLEXIBLY!**
- ▶ Single day, single city approach

(More in the demo...)



# City Tour Planner - Features

- ▶ Allow users to set up a profile to save trips (and history)
- ▶ Allow users to customize trip experience
- ▶ Optimize search results based on user location so that only the most relevant data is returned
- ▶ Include pictures of venues where available
- ▶ Incorporate user feedback for the app

# City Tour Planner - The Tech Stack

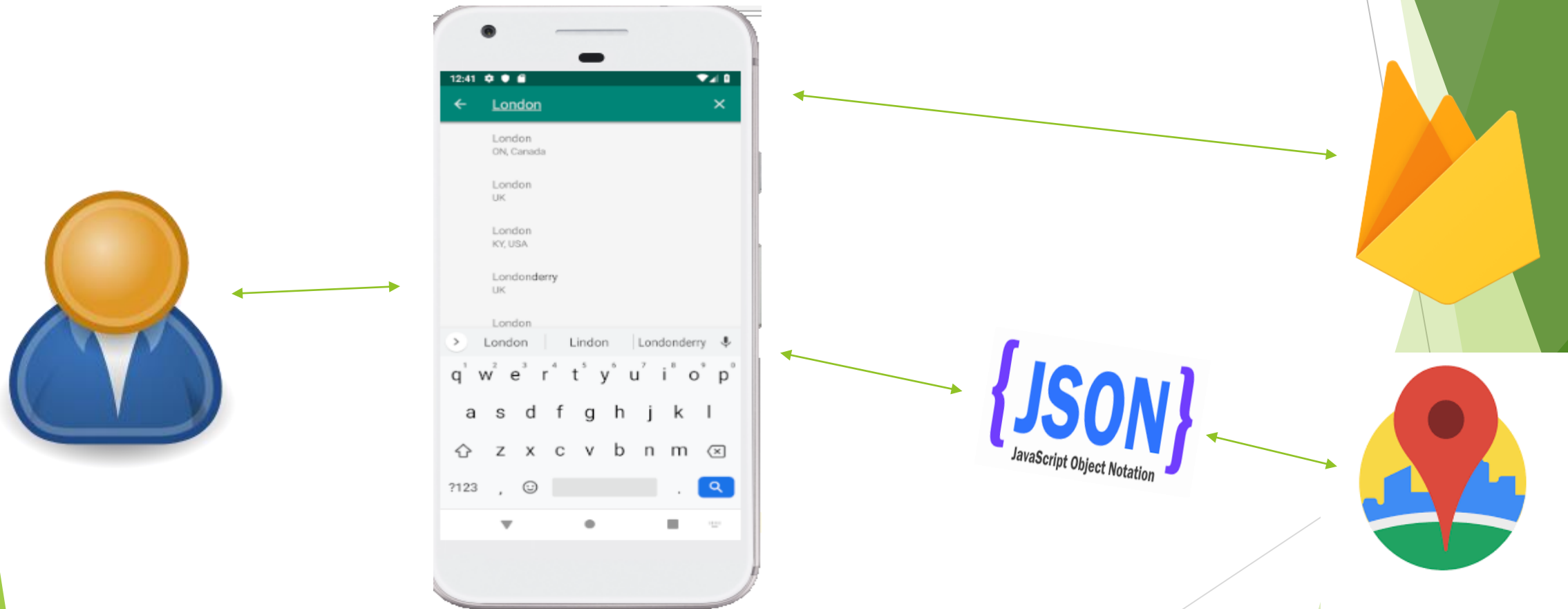
- ▶ Android Studio ( official IDE for programming Android apps)
- ▶ Google's Firebase real-time database - A cloud-based NoSQL database that allows real time synchronization of data (more on NoSQL in the next slide)
- ▶ The Google Places API - for retrieving information regarding places
- ▶ The Volley Library - for efficiently handling HTTP requests
- ▶ Picasso Library- Allows for loading and displaying media from many different sources such as remote servers or the local file system
- ▶ And others - as needed

# SQL vs NoSQL

Schema	No Schema
Normalized, Joins	Denormalized, No Joins
SQL Queries, Transactions	JavaScript & JSON CRUD
Implementing and scaling require admin effort	Easier to implement and scale

Taken from [4]

# City Tour Planner - The workflow



# Challenges

- ▶ Calculating trip duration and end time from start time
- ▶ Restricting the autocomplete dialog to a specific city when adding a place to an existing trip
- ▶ Modifying the application settings screen to include a toolbar and an “up” navigation button

# References

1. Sygic Travel, Available at <https://travel.sygic.com/en> (Accessed: 15 February, 2019)
2. RoadTrippers, Available at <http://www.roadtrippers.com> (Accessed: 15 February, 2019)
3. Triplt, Available at <http://www.tripit.com/web> (Accessed: 15 February, 2019)
4. “Creating your first Android Application with Firebase” by Simone Alessandria, Available at <http://www.pluralsight.com> (Accessed: 02 June, 2019)
5. Sygic Wikipedia Page, Available at <https://en.wikipedia.org/wiki/Sygic> (Accessed: 05 September, 2019)
6. RoadTrippers Wikipedia Page, Available at <https://en.wikipedia.org/wiki/Roadtrippers> (Accessed: 05 September, 2019)