Project Management Plan

Road Trip Advisor Web Application

Revisions

Version	Primary Author	Description of Version	Date Completed
1.0	Beverly Ackah	Initial Release	October 7th 2018
1.1	Shaila Hirji	Update based on Feedback	November 7th 2018
1.2	Shaila Hirji	Updated dates and new completed tasks/features	November 29th 2018
1.3	Beverly Ackah	Updated tasks and features.	March, 11th 2019

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1. Introduction

1.1 Project Overview

The Road Trip Advisor web application will help people plan amazing road trips. After entering a starting and destination point, the web application will suggest a couple of road trip alternatives overlayed with different restaurant, hotels and activities options optimized with user preferences. The stop suggestions will be made using rating and review analytics from third party APIs such as Yelp, AirBNB.

1.2 Literature Review

This section provides a brief overview of application that already exist in the market providing similar services to RTA.

1.2.1 Road Trip Apps Research

Roadtrippers[1] helps people discover the world around them in an entirely new way by streamlining discovery, planning, booking and navigation into an engaging and intuitive process. The web and mobile applications are free to use.
Key features offered by RoadTrippers:
- Plan a trip from A to B with instant fuel approximation and recommendation of places within a given distance of your route
- Book hotels using reviews and photos
- Save a trip once its planned and share it with friends.

Inorder to enable these services, RoadTrippers uses Boone API, OpenStreetMap, MapBox and MapQuest.

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[1] https://roadtrippers.com/
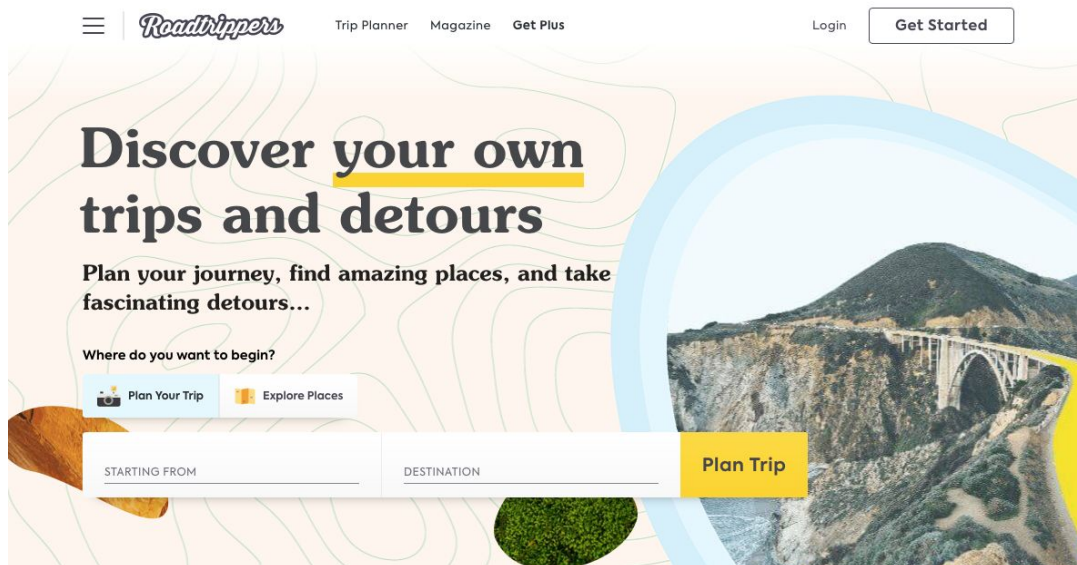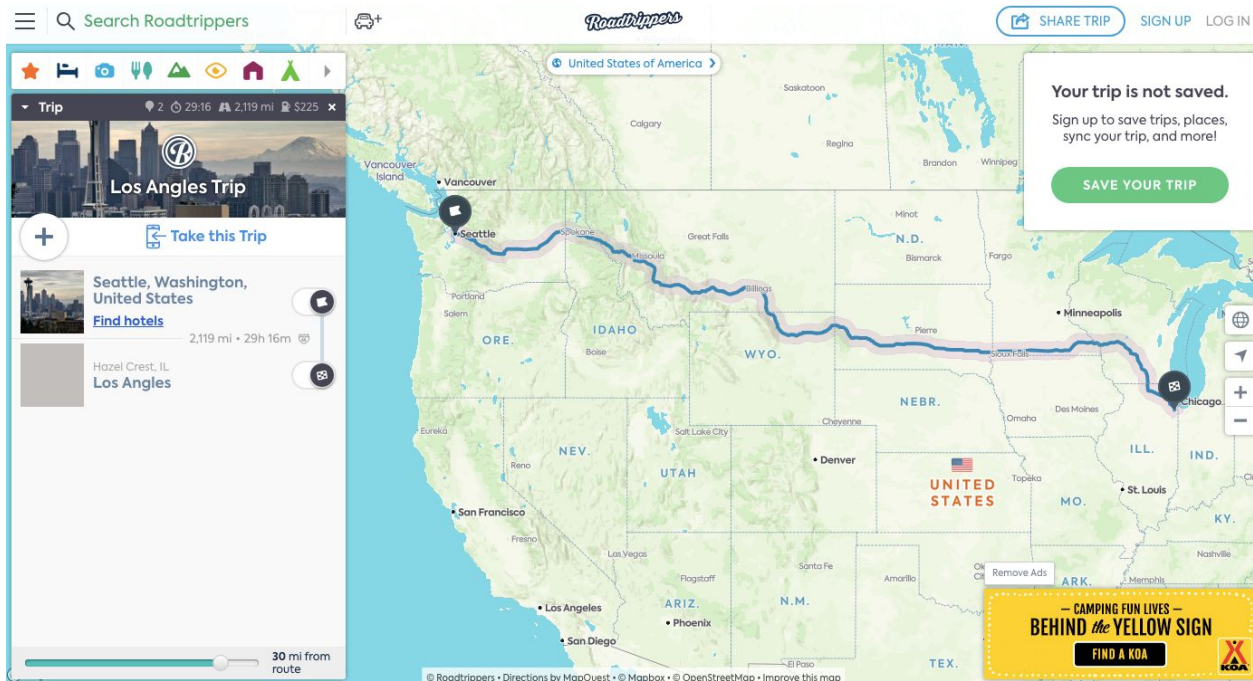
TripAdvisor, **Inc**[2]. is an American travel and restaurant website company that shows hotel and restaurant reviews, accommodation bookings and other travel-related content. (Wikipedia). TripAdvisor has the following features available: Plan/Book a trip (flight), Book a hotel/attractions/travel-related business, Rent a car, Book a restaurant , Read and write reviews.

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[2] https://www.tripadvisor.com/
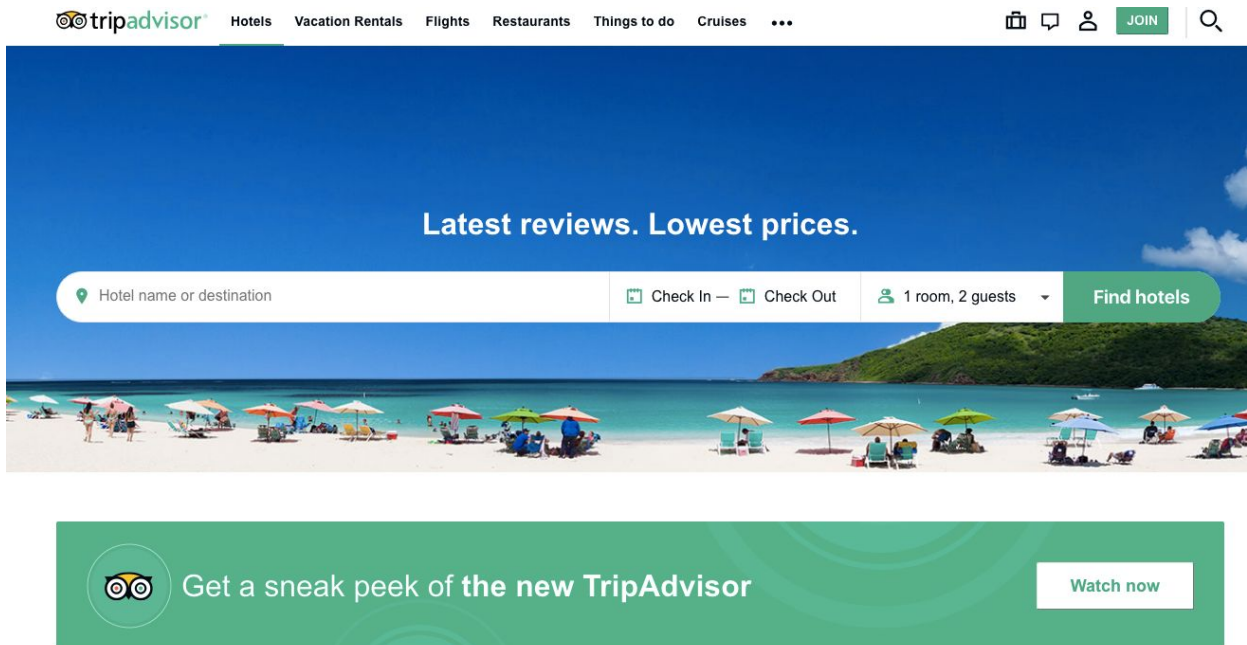
1.2.2 Map API's review

Open directions API by MapQuest[3]
The Open Directions API is similar to the MapQuest Directions API -- providing a simple interface to get routes between two or more points -- but instead relies solely on data contributed to OpenStreetMap.

GraphHopper Directions API[4]
GraphHopper is a routing library and server based on OpenStreetMap data. Its written in Java and provides web interfaces for routing over HTTP, Android and iOS.

The GraphHopper API includes features such as simple installation, OpenStreetMap integration, business support, elevation data and scalable graphs. It's also extremely fast; can be used on mobile devices with less than 32 MB; and supports car, bicycle and pedestrian options by default. The API is also customizable, which means that there is a whole list of ways in which it can potentially be used.

Application that use GraphHopper API: Bumbal, GPSies, Kurviger, OpenStreetMap for bike and pedestrian routing, Bubble post, and BikeWithMe.

TripGo API[5]
TripGo API enables applications for planning door-to-door trips using a large variety of public and private transport options. The API integrates real-time information and, for selected providers, allows users to book and pay for transport.

Applications that use TripGO API: GoOptus, EventGo, finderful.com, ZipTrip, GoBengaluru, GoDenver, GoLA, and Embark.

Sygic Routing API / Sygic Geocoding API[6]
https://www.sygic.com/developers/maps-api-services/geolocation-and-search-api
The Sygic Routing API is a cloud service that calculates routes from one location to another that includes; Waypoints with time windows, Avoid specific road types, Avoid specific block of map defined by map selection and more. The Sygic Travel itinerary incorporates a travel planner into your website or mobile app that gives customers a way of planning trips using virtual reality, that provides offline maps with points of interest data and includes; description, photos, 360° videos, contact information, opening hours, admission fees and more.

MapQuest Search Ahead API[7]

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[3] https://developer.mapquest.com/documentation/open/directions-api/
[4] https://www.graphhopper.com/
[5] https://developer.tripgo.com/
[6] https://www.sygic.com/developers
[7] https://developer.mapquest.com/documentation/searchahead-api/

Search Ahead is a spatially-aware predictive search engine most commonly used to implement 'type ahead' or autocomplete-like functionality within an application, to provide a list of suggestions to the user that refreshes as the user is typing. This API will return address, administrative area (city, state, postal code), airport, category, franchise, and POI suggestions based on just a few characters.

Google Maps[8]

Google Maps is a web mapping service developed by Google. It offers satellite imagery, street maps, 360° panoramic views of streets, real-time traffic conditions, and route planning for traveling by foot, car, bicycle, or public transportation. (Wikipedia). Google Maps has the following features available: Get directions, See road trips, Explore the world up close (Street View/3D View), Save addresses, Get tickets for shows and concerts and Book your next flight.

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[8] https://google.com/maps

2.0 Project Organization for Fall 2018

2.0.1 Roles and Responsibilities

- **Team Leader and Scriber- Beverly Ackah**
  Responsibilities:
  - → Develop strategy the team will use to reach its goal
  - → Communicate clear instructions to team members
  - → Listen to team members feedback and concerns
  - → Monitor team members participation
  - → Manage flow of operations
  - → Facilitate problem solving and collaboration
  - → Encourage creativity, risk taking, and constant improvement
- **Communications Manager and Meeting facilitator- Shaila Hirji**
  Responsibilities:
  - → Make team members aware of changes within projects
  - → Distribute executive messages
  - → Prepare presentations and memos
  - → Clarify project goals
  - → Controlling proceedings
  - → Steering focus and activity
  - → Facilitating discussions
  - → Assisting dynamics
  - → Confirming progress
- **Quality Manager and Configurations Manager- Fred Wirtz**
  Responsibilities:
  - → Improve reliability of new product development processes
  - → Maintain company quality standards
  - → Review product, processed and systems on an ongoing basis to determine where improvements can be made
  - → Oversee the product manufacturing process to ensure quality
  - → Monitor, manage ,review and update all procedural documentation and work instructions
  - → Manage any new requirement or changes to the process
- **Product Owner- Beverly Ackah, Fred Wirtz, Shaila Hirji**
  Responsibilities:
  - → Ensuring that the software product vision statement is adhered to
  - → Making the final decision on all scope related decision
  - → Maintaining and adhering to product backlog on continuous basis by:
    - -Refining new requirements
    - -Removing requirements that fall out of scope
  - → Resolving any disputes with software development team or internally

- **Project Manager- Beverly Ackah, Fred Wirtz, Shaila Hirji**
  Responsibilities:
  - ➔ Developing software project plan
  - ➔ Managing deliverables according to software plan
  - ➔ Establishing project Schedule and determining each phase
  - ➔ Assigning task to project team members
  - ➔ Providing regular updates to supervisor
- **Technical Lead-Beverly Ackah, Dr Fatma Serce, Fred Wirtz, Shaila Hirji**
  Responsibilities:
  - ➔ Establish and enforce standards and practices with software development team
- **Software Developers- Beverly Ackah, Fred Wirtz, Shaila Hirji**
  Responsibilities:
  - ➔ Use technical requirements from technical lead to create timeline estimate
  - ➔ Build deliverables and communicate status of the project to technical lead/ project manager
- **Software Tester- Beverly Ackah, Fred Wirtz, Shaila Hirji**
  Responsibilities:
  - ➔ Ensures that the software meets the requirements
  - ➔ Review and contribute test plans as well as analyse, review and assess technical requirements and design specifications
  - ➔ Identify test conditions and create test designs, test cases, test procedure specifications and test data
  - ➔ Execute and log the tests, evaluate results and document problems found
  - ➔ Review each other's work, including test specifications, defect reports and test results throughout the software testing cycle.

2.0.2 Tools and Techniques

Agile software development methodology, this will enable us to minimize the risk as we will be developing the software in short time boxes, i.e. iterations. Each iteration will last around four weeks. Each time box is like a mini software project including all the tasks necessary to release the mini increment of the new functionality:
- Planning
- Requirements analysis
- Design
- Coding
- Testing
- Documentation

After each iteration, the team will reevaluate the project priorities. We expect the team to hold regular meetings, constant cooperation, early and continuous delivery.
- Discord is the primary communication platform along with weekly in person discussions
- Weekly sprint meetings with Supervisor

- Weekly team meetings

Team Website: https://shailahirji.github.io/RoadTripAdvisorProject.github.io/

2.1 Project Organization for Winter 2019

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- **Team Leader and Scriber- Fred Writz**
  Responsibilities:
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- Discord is the primary communication platform along with weekly in person discussions
- Weekly sprint meetings with Supervisor
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3.0 Project Management Plan for Fall 2018

3.1 Tasks

- Writing planning documents
- Literature review
- Writing SRS documentation
- Developing sample applications with different Map APIs
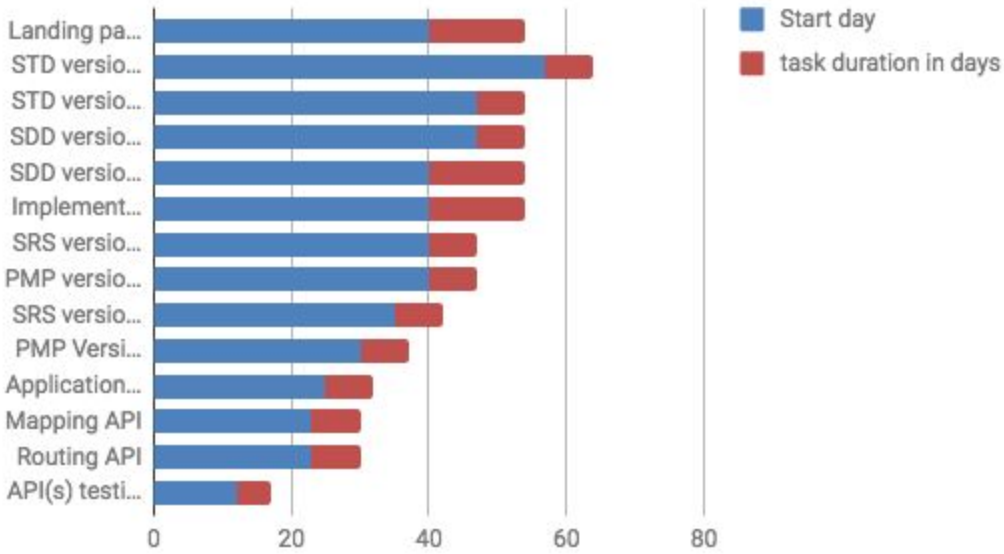- Write test cases

3.2 Milestones

Milestones	Deliverable	Deadline	2nd Deadline
Planning	SPMP Version1	10/7/2018	12/6/2018
Requirements	SRS	10/17/2018	12/6/2018
Design	SDD	11/21/2018	12/6/2018
Test Plan	STD	11/21/2018	12/6/2018
Sprint #1	Release 1	10/30/2018	12/6/2018
Sprint #2	Release 2	11/13/2018	12/6/2018
Sprint #3(Presentation)	Release 3	11/28/2018	12/6/2018

3.3 Assignments

Task	Team member	Deadline
API(s) testing	All	
Routing API	Shaila Hirji	
Mapping API	Fred Wirtz	
Application Layout	Beverly Ackah	

PMP Version 1	All	10/2/2018
SRS version 1	All	10/14/2018
PMP version 1.1	Shaila Hirji	11/5/2018
SRS version 1.1	Beverly Ackah	11/5/2018
SDD version 1	All	11/5/2018
SDD version 1.1	Fred	11/28/2018
STD version 1	All	11/21/2018
STD version 1.1	Beverly, Shaila	11/29/2018
Current Location feature	Shaila	11/21/2018

3.4 Timetable

3.1 Project Management Plan for Winter 2019

3.1 Tasks

- Update planning documents
- Literature review
- Update documentation
- Develop application with different Google Maps' API
- Write test cases

3.2 Milestones

Milestones	Deliverable	Deadline
Sprint #1	Release 1	01/20/2018
Sprint #2	Release 2	02/06/2019
Sprint #3	Release 3	02/20/2019
TED Talk	Presentation	02/25/2019
Sprint #4	Release 4	03/06/2019
Final Presentation	Presentation	03/13/2019

3.3 Assignments

Task	Team member	Deadline
Read react	Shaila	01/20/2018
Number of passenger Card	Beverly	01/20/2018
Itinerary Card	Fred	01/20/2018
Update Documentation	All	01/20/2018
Meal card	Shaila	02/06/2019

	Beverly	02/06/2019
Itinerary Card	Fred	02/06/2019
Update Documentation	All	02/06/2019
Connect user input to map	Shaila	02/20/2019
Create a map component, place markers based on user input and draw a route between each markers.	Beverly	02/20/2019
Show Itinerary on Map	Fred	02/20/2019
Update Documentation	All	02/20/2019
Connect user input to map and render places based on route shown. Add custom markers	Shaila	03/06/2019
Autocomplete fields for location and destination being restricted in the USA.	Beverly	03/06/2019
Add Locations to Itinerary	Fred	03/06/2019
Update Documentation	All	03/06/2019
Prepare Presentation	All	03/13/2019
Tie Everything Together	All	03/13/2019

3.4 Timetable

Winter 2019