Road Trip Planner - An Applied Problem

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Author’s Note

On a thorough review of different android applications available in the market, I found that there are other applications and websites that help in trip planning, however these were found to be deficit in either ease of use, entirety of features or presentation.

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For developing an app, it’s very important to make sure what your application is providing is different from the others available in the market. I believe for an application to be different from another we can quantify the differences on the following parameters

1. Presentation
2. Features
3. Customizations
4. Social Media integration
5. Performance
6. Cost of Service
7. Anonymity(Privacy)
8. Ease of use

I have tried to review many applications that were providing services to help people plan their travel. I reviewed the following applications and compared them on some of the features I believe is of value to the user of such an app.

1. Google Maps
2. Roadtrippers
3. Road Warrior Route Planner
4. RoadAtlas - Trip Planner
5. Road Trip Planner
6. Trip Planner
7. Accu Weather
8. Yelp
9. FindEat
10. Gas Buddy
11. Hotels
12. RV Parks & Campgrounds

A brief overview of the features is presented as a matrix in the Table 1: Features of Applications reviewed presented below.

Table 1: Features of Applications reviewed

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **App/Feature** | **Core Feature** | **Navigation** | **Weather** | **Restaurants** | **Lodging** | **Gas Stations** | **Expense Sharing** | **Sightseeing** |
| **Google Maps** | Navigation | X |  | X |  | X |  |  |
| **RoadTrippers** | Trip Planner | X |  | X | X |  |  | X |
| **Road Warrior Route Planner** | Trip Planner | x |  | x | x | x |  |  |
| **RoadAtlas - Trip Planner** | Trip Planner |  |  |  |  |  |  |  |
| **Road Trip Planner** | Trip Planner | X |  | X | X | X |  | X |
| **Trip Planner** | Trip Planner |  |  |  |  |  | X |  |
| **AccuWeather** | Weather |  | X |  |  |  |  |  |
| **Yelp** | Review | X |  | X |  | X |  |  |
| **FindEat** | Restaurants |  |  | X |  |  |  |  |
| **Hotels** | Lodging |  |  |  | X |  |  |  |
| **Gas Buddy** | Gas |  |  |  |  | X |  |  |
| **RV Parks & Campgrounds** | Lodging |  |  |  | X |  |  |  |

Since Maps and Navigation is one of the most important aspect of our application, the quality, detail and ease of use of the map function is of utmost importance. One of the most widely use application used for planning travel is Google maps. While the application is the most informative, efficient and easy to use, but does not provide

Most of the applications we reviewed offer free services, however a few of the apps provide premium service features for a certain fee. Certain applications such as FindEat offer anonymous usage without any need to sign up for service. In today’s day and age when the consumer is informed and quite aware of their privacy and security concerns, I believe it’s a highly desirable feature to have.

One of the application that is most closely related to what I propose to do is Road Tippers. The application provides a map and navigation tool with suggestions of nearby attractions along the route. It provides information about millions of places, like local diners and quirky roadside attractions, or scenic points, national parks, and hotels. Application also provide a webbased product that be directly accessed from web browsers. Application provides special features for fees as a pro service along with different coupons from various partner businesses. It also allows for to share road trip plan with friends and family, different users can edit and modify the trip plan which is a really nice feature to have and makes trip planning with friends fun. Users can plan trips directly from the app or on the web at roadtrippers.com, then share them with a group. Friends can add suggestions to the itinerary and travel with their favorite navigation app (google maps or waze etc). Saved trips or places are synced automatically across different devices. This application currently provides services only in USA region

Another such application is Road Warrior Route planner, Road Warrior claims to have solved one of the most complex challenges known to computer science, the Traveling Salesman Problem (TSP, TSPTW). It uses a custom genetic algorithm to elegantly solve the TSP with a custom genetic algorithm specifically tailored for the mobile professionals. This type of productivity software is has been used by large transportation companies (FedEx, UPS) for decades to optimize routes for high levels of efficiency. Another unique feature that this application provides in comparison with other applications is that it provides real time traffic for planning trips while most applications other than Google Maps does not provide this feature. This app also takes into account the starting time and the desired time to arrive at the destination. This app is particularly useful for planning business road trips. Application also allows for prioritizing which locations to be visited in a fuel-efficient way and schedule stops with more efficient routes. The Road Warrior application is widely used by the professional couriers like Fedex, UPS and DHL drivers to sales representatives, realtors, insurance agents, delivery drivers and even small businesses. The free version provides for planning with up to 8 stops on the route while the paid version can add 120 stops at a given route. Pro version also offers a lot more added features that are not available in free version. It also takes in to account the objective of the road trip to efficiently plan the route. A unique feature for this app is that it can be integrated with 3rd party app Glympse which will automatically send text updates to friends or customers about the trip progress.

Another application with similar purpose as the one suggested by me is Road Trip Planner. It’s a delight for people concerned about the environment and considerate about the fuel they will burn for the trip. This app provides the user unique features that current map / direction applications lack. By providing the user with the ability to plan ahead and set different pit stops between their set origin and destination, this is one of the many reason how Road Trip Planner stands out from the rest. These pit stops include food, gas stations, lodging options, and many attractions.  
Since its always desirable to take into account the cost of the trip, Road Trip Planner takes into account your vehicle information to provide you with specific gas station results and how much money you will spend on gas during your trip. It provides a fairly accurate estimate of the Total Cost Of Gas and Total C02 Output. It takes into account city and highway mileage for the vehicle. It also helps the average person to be more aware of their carbon footprint by tracking the CO2 emissions outputted by their vehicle over the course of their trip. It allows for adding different points of interest along the route and will provide option to get the phone, website and other information for the establishment.

Trip Planner application provides a option to share the trip summary with your contacts. Users can share the trip summary data via email, other sharing apps or upload it on Google Drive. This app allows users to save older trips. Different functions like Trip mode, stay, activity, trivia, to-do, mate, expense, route, odometer, google docs and summary where user can view or define trip details after tapping listed trip. Trip details screen would show the tiles of these functions.

Another important aspect of p;lanning trup is to keep track of weather, Accu Weather weather forecast & real time rain, storm, ice & snow reports: enjoy Superior Accuracy™ wherever you are with AccuWeather. You can Track severe winter weather with weather radar maps, real time weather alerts & the AccuWeather hurricane tracker feature. Get your holiday weather forecast: plan any journey with precision and confidence. Never get caught in the rain again. Users can use this app to Plan travel with MinuteCast®: rain, snow & ice forecasts, displayed minute-by-minute for the next two hours, hyper-localized to your exact location. Track Temperature with RealFeel Temperature®: AccuWeather’s unique weather widget shows you not only the temperature in Fahrenheit or Celsius, but how warm or cold it actually feels outside. Avoid winter snow & road ice with certainty & get your accurate holiday weather forecast. Provides real time weather maps & weather radar animations with your personal blizzard & hurricane tracker. Stay out of the storm with pushed severe weather alerts.

Track conditions wherever you are: get weather maps, weather radar, blizzard reports & the AccuWeather hurricane tracker. AccuWeather lets you personalize your weather forecast any way you want, anywhere you are in the world in 33 different languages, Fahrenheit or Celsius.

Provides Daily Snapshot weather widget when you open the app and find out at-a-glance what you can expect from the day’s conditions, from wind speed to humidity. Scroll through your Local Forecast Summary to get your concise and precise weather forecast for the next two weeks, so you can plan your weekends around holiday weather.

We also looked at an application providing information about food options. Find Eat application lets users discover the best restaurants near you according to TripAdvisor, Yelp and Google. This application does not require user to make a login and don’t have to bother about sharing personal information. Restaurants near you and find the best according to TripAdvisor, Yelp and Google and have one click reservation. This application is available in about 500 cities world wide. Findeat specifically targets that are tired of spending a lot of time looking for good restaurants when we travel. This application takes in to account reviews for the best restaurants on Yelp, TripAdvisor and Google, as these tend to different to each other, provides a much accurate review.

Lot of the newer applications are presenting some of the features that we have planned on, which were not there a few months back. With ever changing and updating apps, applications are improving upon the functionality and performance along with a better user experience. To be of any significance we need to move quickly and get the application out there as quickly as possible or come up with better user-friendly features.

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