TravelApp

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Introduction

It has been found that there are no applications that create itineraries for users. Applications available are split to providing attraction information as a data storage application or a timetabling application that the user fills in themselves.

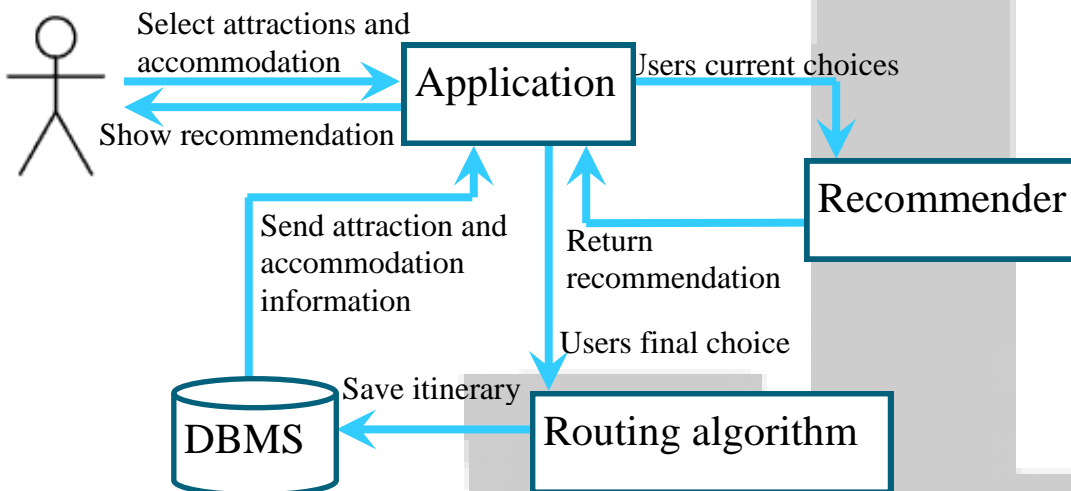TravelApp consists of 3 focal points:
Recommender: Recommends attractions and accommodations based on attractions the user has already selected
Itinerary Creation: Creates itinerary visiting as many attractions as possible while reducing travel time
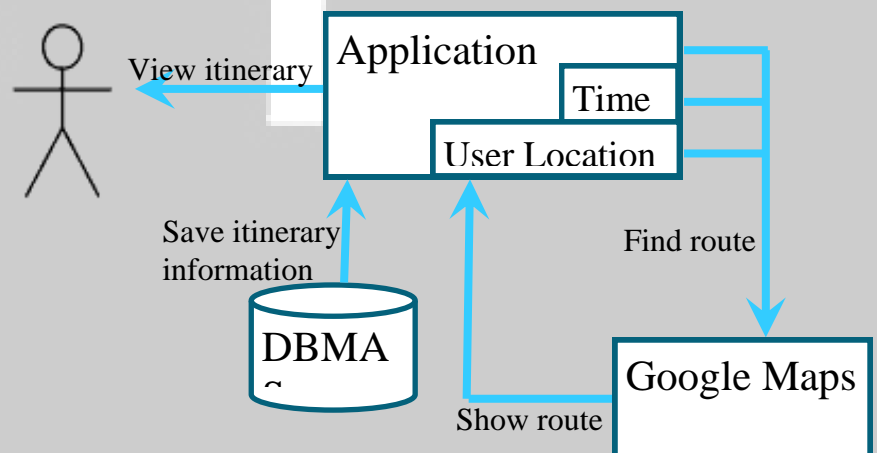**Itinerary View:** Allows the user to view the itinerary and see the attractions they have/will visit on a map.

Design

Creating itinerary

Select attractions and accommodation → Application
Show recommendation ←

Application → Users current choices → Recommender
Recommender → Return recommendation → Application

Send attraction and accommodation information → Application

Application → Users final choice → Routing algorithm

Routing algorithm → Save itinerary → DBMS

Viewing itinerary

Application → View itinerary → (user)

Application → Time
Application → User Location

DBMS → Save itinerary information → Application

Google Maps → Find route
Google Maps → Show route → User Location

Implementation

Loreen's Kindle 23:05 📶 89% 🔋
CreateItineraryActivity

ATTRACTIONS | CURRENT SELECTIONS | ACCOMODATION | CREATE

Selecting Hong Kong Skyline attraction

Recommend
Hong Kong I
Kowloon

Hong Kong Skyline
Free 0:30
★★★★☆

Chi Lin Nunnery
Free 1:00
★★★★☆

Tsim Sha Tsui Promenade
Free 0:30
★★★★☆

Lantau Island
New Territories
Outlying Islands

Recommender uses selected attraction categories. i.e, landmark, observation tower/deck, museum, amusement, etc and finds other non-selected attractions with the same categories.
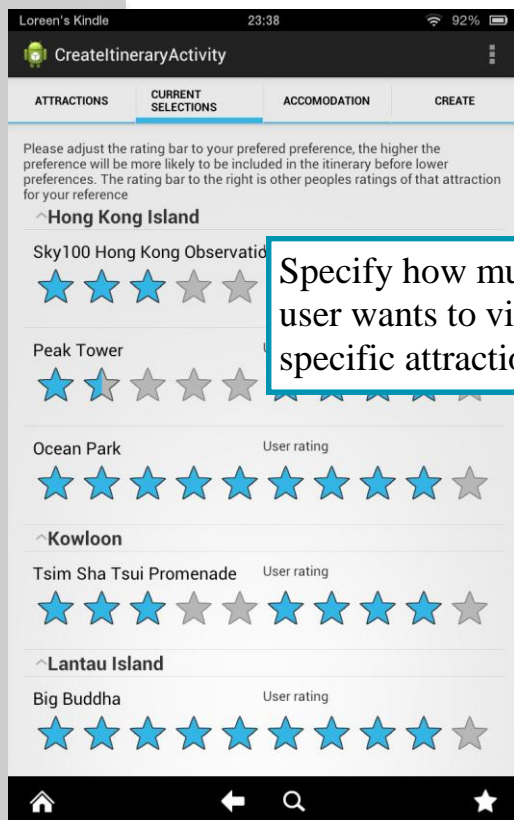
Recommender

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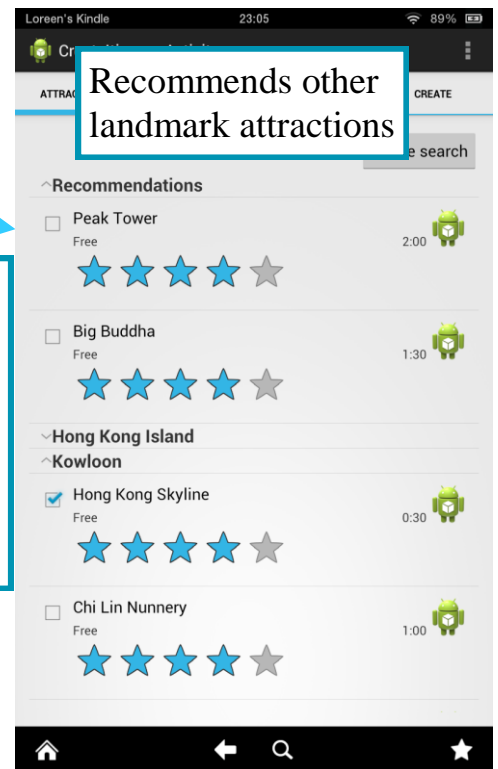
ATTRA | CREATE

Recommends other landmark attractions

e search

Recommendations

Peak Tower
Free 2:00
★★★★☆

Big Buddha
Free 1:30
★★★★☆

Hong Kong Island
Kowloon

Hong Kong Skyline
Free 0:30
★★★★☆

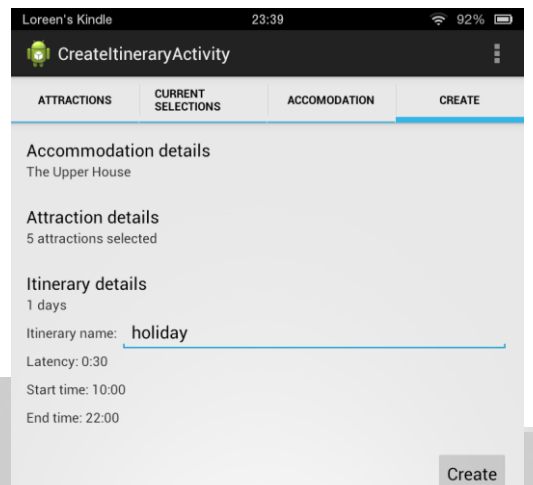Chi Lin Nunnery
Free 1:00
★★★★☆

Accommodation recommender selects closest hotels based on the average   location of the selected attractions.

Itinerary creation

Bin sort sorts from an ordered list of attractions based on user preference. Each bin is a day with weighted attractions based on the attraction visit time. Another weight is added which is the travel time between attraction and the previous location.
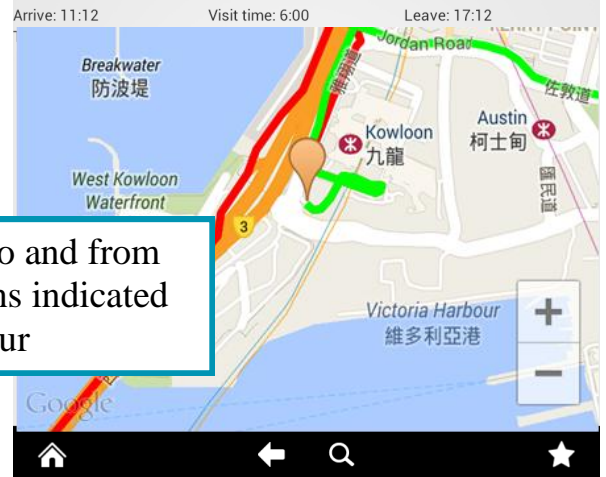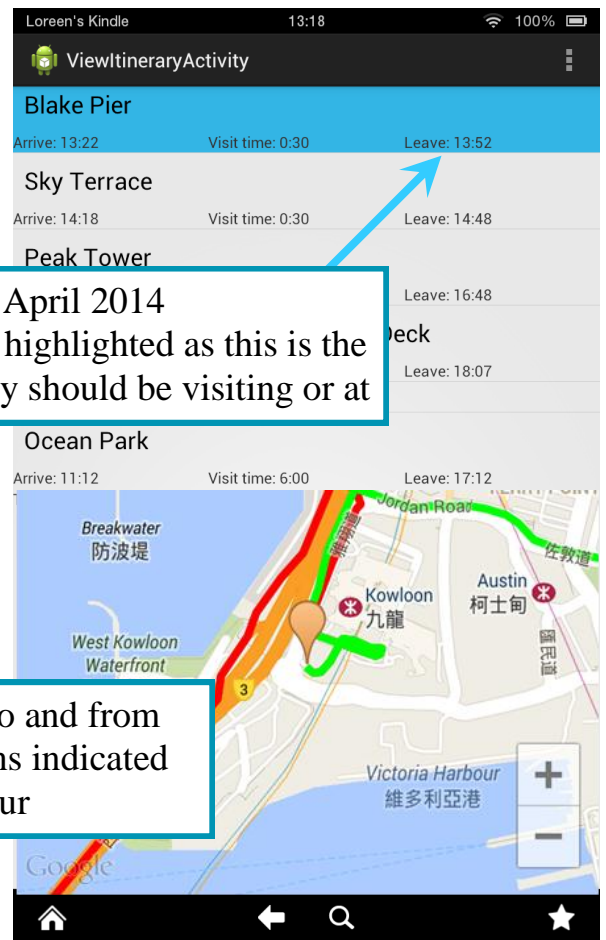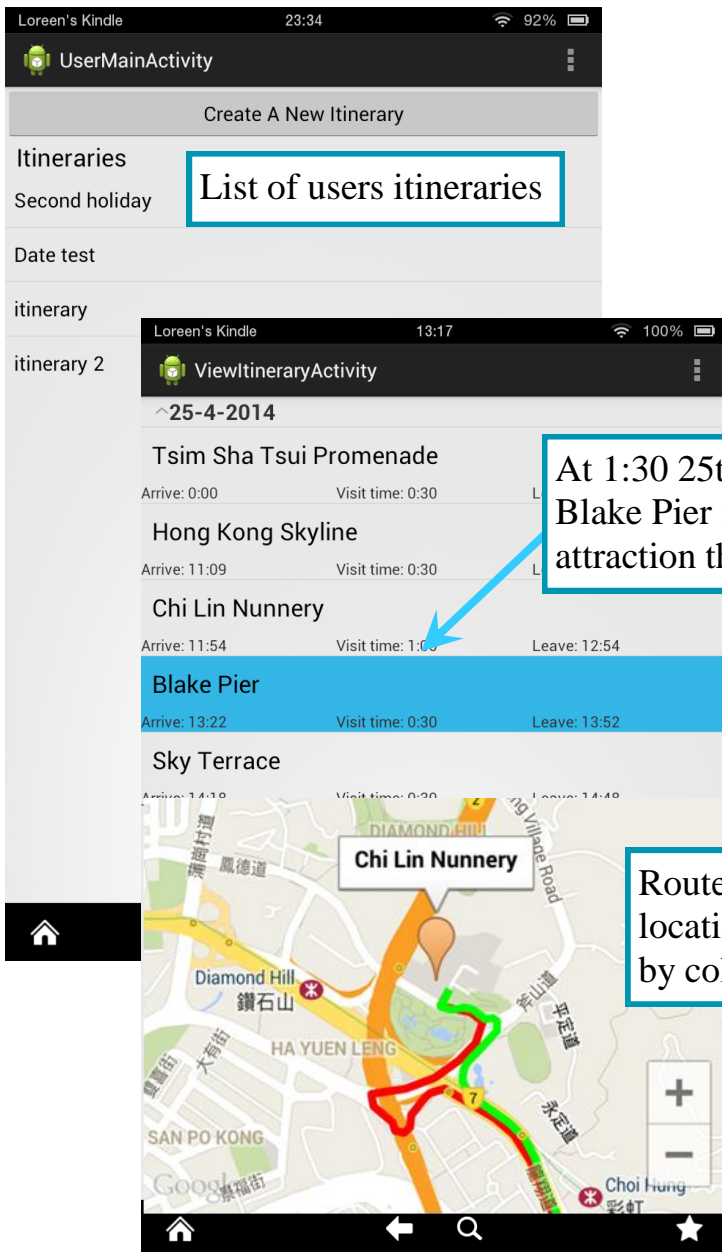
Loreen's Kindle 23:38 📶 92% 🔋
CreateItineraryActivity

ATTRACTIONS | CURRENT SELECTIONS | ACCOMODATION | CREATE

Please adjust the rating bar to your prefered preference, the higher the preference will be more likely to be included in the itinerary before lower preferences. The rating bar to the right is other peoples ratings of that attraction for your reference

Hong Kong Island

Sky100 Hong Kong Observatio
★★★☆☆

Specify how much the user wants to visit specific attractions

Peak Tower
★☆☆☆☆

Ocean Park   User rating
★★★★★★★★★☆

Kowloon

Tsim Sha Tsui Promenade   User rating
★★★☆☆★★★★☆

Lantau Island

Big Buddha   User rating
★★★★★★★★★☆

Loreen's Kindle 23:39 📶 92% 🔋
CreateItineraryActivity

ATTRACTIONS | CURRENT SELECTIONS | ACCOMODATION | CREATE

Accommodation details
The Upper House

Attraction details
5 attractions selected

Itinerary details
1 days
Itinerary name: holiday
Latency: 0:30
Start time: 10:00
End time: 22:00

Create

Confirm and fill in information:
- **Start and end time for each day**
- **Itinerary name**

List of users itineraries

At 1:30 25th April 2014
Blake Pier is highlighted as this is the attraction they should be visiting or at

Route to and from locations indicated by colour

Conclusion

During this project, a unique android application has been created to help tourists create their own personalised itineraries which they can carry with them during their travels.

Further improvements:
- Use of data mining to collect data sensibly for the application
- Adding meal breaks in the itinerary, account for users needing to eat during the day
- Recommend restaurants similar to accommodation but based on user location

TravalApp Future Possibilities

If this application were to continue to develop, in the future it would allow travel worldwide and include multiple methods of transport including flights. An itinerary could have multiple accommodation selections and allow the user to travel to multiple countries in one itinerary.