

SHARE MY TRIP

UNIVERSITE DE GENEVE

CAS en Nouvelles Technologies du Web

Lionel Egger

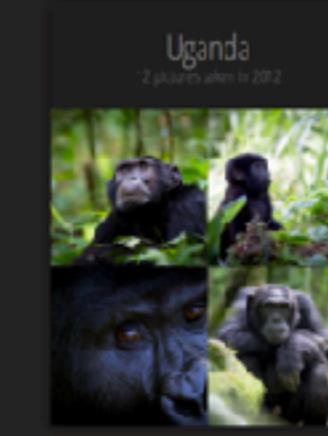
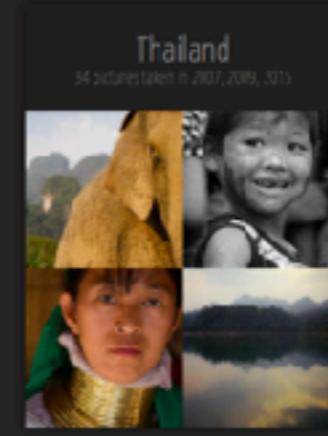
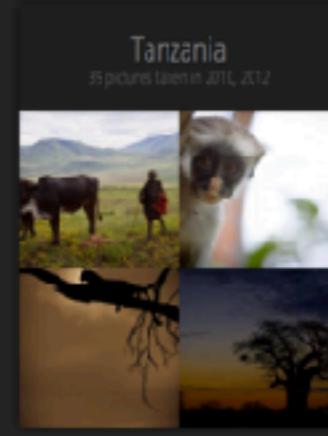
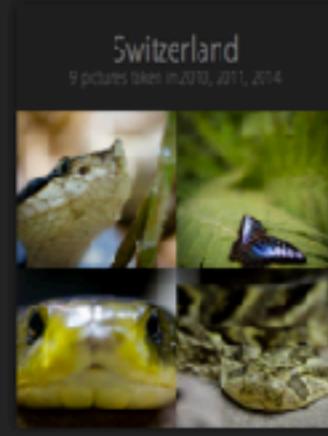
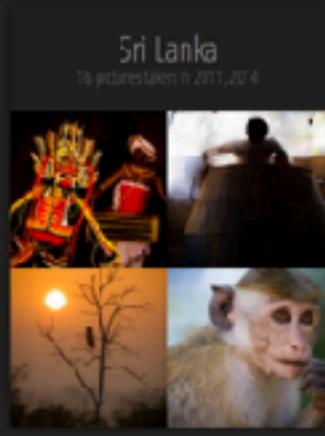
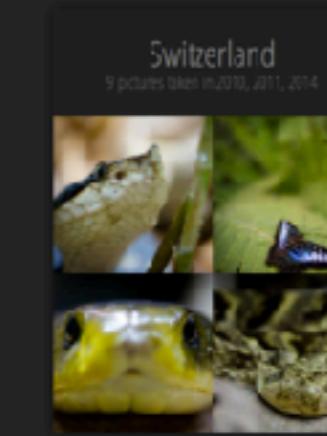
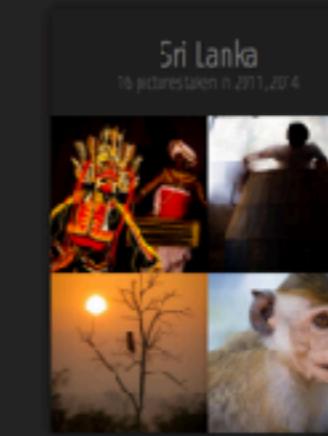
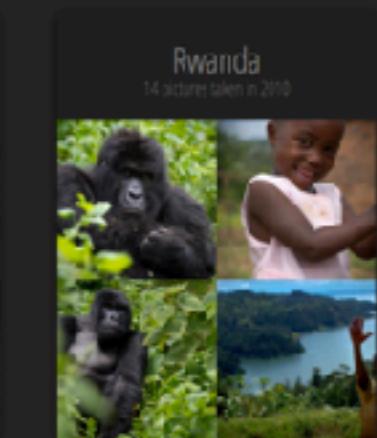
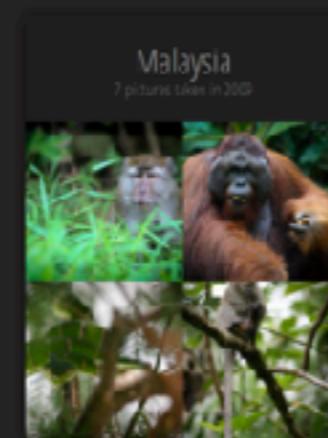
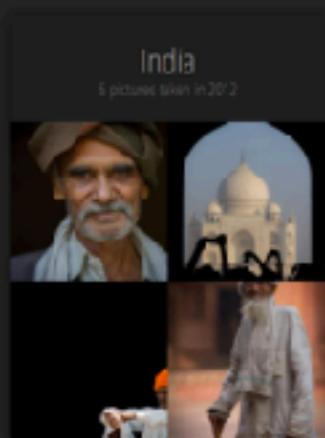
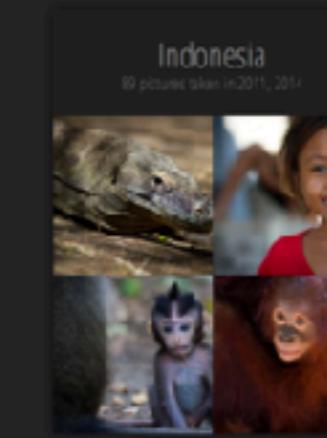
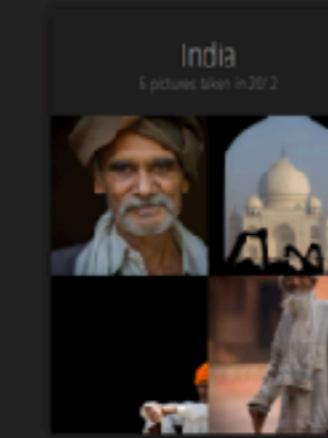
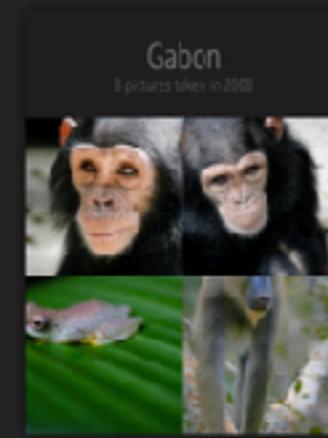
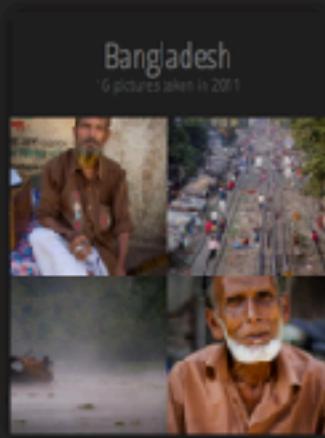


PLAN 45'

- ▶ **Background** 10'
- ▶ **Architecture** 10'
- ▶ **User experience** 10'
- ▶ **Demo** 10'
- ▶ **Future developments** 5'

SHARE MY TRIP

BACKGROUND



Some alone ...
but not always

APP TO PLAN & BUDGET TRIPS WITH FRIENDS

▶ Travel apps

- ▶ Tripit
- ▶ tripcase
- ▶ Google trips



NO BUDGET SHARING
NO TRAVEL SHARING

▶ Expenses apps

- ▶ Expensify
- ▶ iXpenselt
- ▶ Concur Expenses



NOT RELATED TO TRAVEL
NO EXPENSE SHARING

SHARE MY TRIP

Plan & Budget

multi-users platform

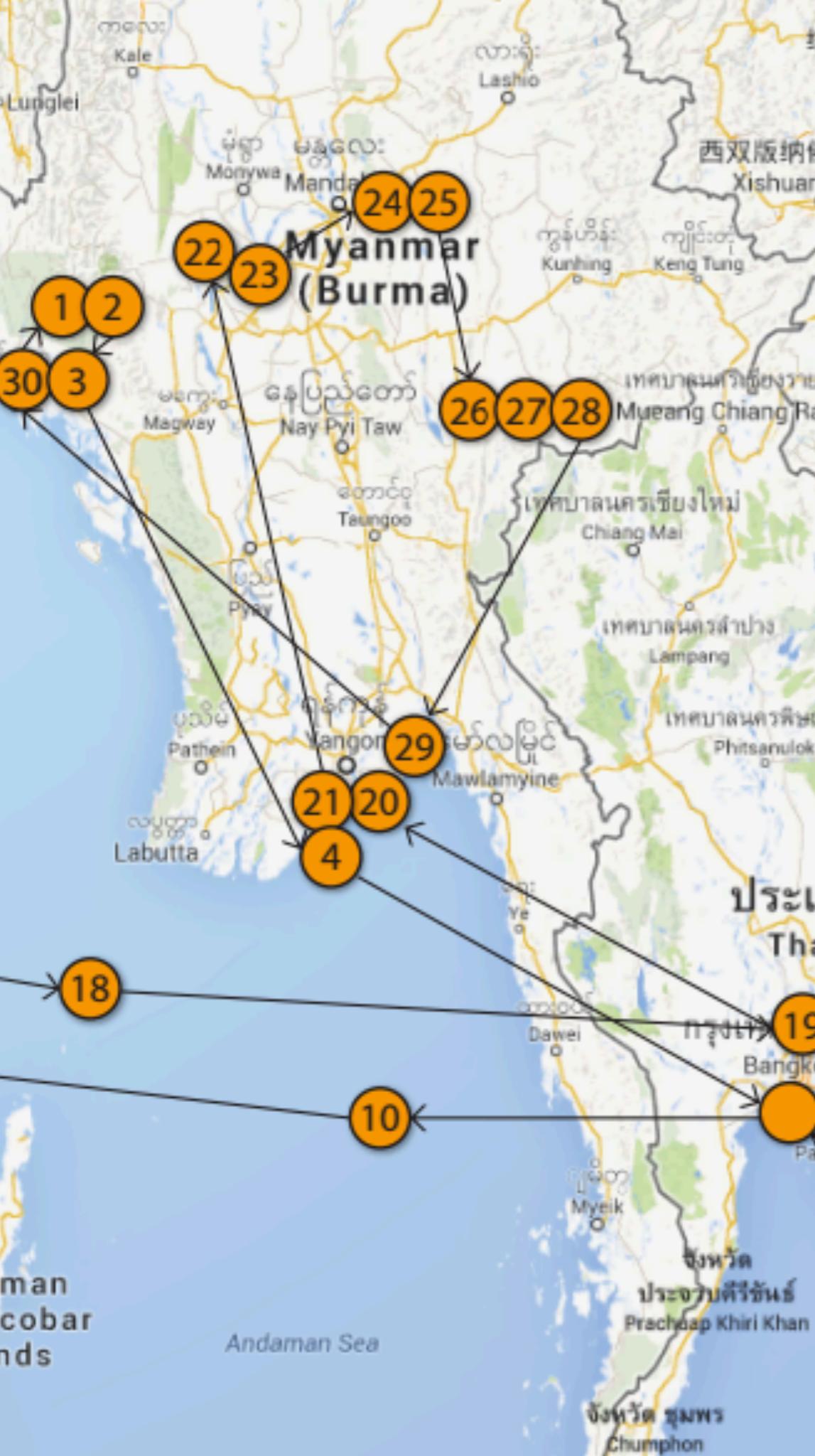
SHARE MY TRIP: BACKGROUND

TRAVEL SHEETS ON EXCEL

Jour	Voyage	Départ	Arrivée	Voyage (CHF)	JOUR			HOTEL	Jour + Hotel (CHF)	Remarques	Paié par Lionel (CHF)	Paié par Leng (CHF)			
Avant				\$ cash brought with us				Paié prophylacte			100	300			
23 Samedi	Genève - Zurich (LX2805) Zurich - Nairobi (LX2905)	0726 GVA 0900 ZHR	0820 ZHR 1840 NBO	3240				Osoita Lodge (Nairobi)				1620	1620		
24 Dimanche				Nairobi (Généraux Nairobi NP take my wallet)				Osoita Lodge (Nairobi)							
D DAY DATE	Travel	Departure	Arrival	Travel (CHF)	DAY	Day (CHF)	HOTEL	Hotel (CHF)	Remarks			Paid by Lionel (CHF)	Paid by Leng (CHF)		
26	Before			Cash 1300USD (Lionel)	1254,6	MISA	205,36				VISA (Orlinc 35,00CHF + Visa 170CHF)	1460,86			
1 Saturday	8 juin	AF1543 GVA-CDG (WURRK) AF0269 CDG-BGN	GVA 0800 CDG 1336	2403,7									2403,7		
2 Sunday	9 juin	VH1825 BGN-POC (KHX02M)	BGN 0855 POC 1055	322,8	Beach1							322,8			
9 Jour DATE	Voyage	Départ	Arrivée	Voyage (CHF)	JOUR			Jour (CHF)	HOTEL	Hotel (CHF)	Remarques	Paié par Lionel (CHF)	Paié par Parents (CHF)		
4 8 Samedi	23 novembre				J4: Bagan Full day sightseeing			Kumader, Bagan	4013USD à payer (=3812CHF). Claude a retenu son billet (=6777CHF)						
5 7 Dimanche	24 novembre	Bagan NYU - Mandalay MDL				J5: Bagan Mandalay (Amarapura-Ava-Mandalay)		Zegyo, Mandalay							
6 8 Lundi	25 novembre				J6: Mandalay Soging Mandalay			Zegyo, Mandalay							
7 9 Mardi	26 novembre	Mandalay MDL - Heho HEH				J7: Mandalay-Heho-Pindaya-Kalaw		Winni, Kalaw							
10 10 Mercredi	27 novembre				J8: Kalaw-Inle			Hupin Nyuang Shwe, Inle							
11 11 Jeudi	28 novembre				J8: Inle-Taunggyi			Taunggyi Hotel, Taunggyi							
12 12 Vendredi	29 novembre	Heho HEH - Yangon RGN				J10: Taunggyi - Yangon		Panorama, Yangon				20140905: Rya received USD 9'319 (invoice 9'334)			
13 13 Samedi	30 novembre	Yangon RGN - Sittwe AKY				J11: Yangon-Sittwe		Snowhezin, Sittwe				20140902: Lionel paid CHF 8884.3 (C+G)			
14 14 Dimanche	1 décembre				J12: Sittwe-Mrauk U		Snowhezin, Sittwe				20141022: Rya received USD 6'463 (invoice 6'478)				
15 15 Lundi	2 décembre				J13: Mrauk U Sightseeing		Snowhezin, Sittwe				20141021: Lionel paid CHF 6216.3 (L+L)				
16 16 Mardi	3 décembre				J14: Mrauk U Sittwe		Snowhezin, Sittwe				Rya received TOTAL: USD 15'762 (invoice 15'812)				
17 17 Mercredi	4 décembre	Sittwe AKY - Yangon RGN				J15: Sittwe-Yangon		Panorama, Yangon				=> 30 USD still to pay to Rya			
18 18 Jeudi	5 décembre	Bangkok Airways PG708 Bangkok Airways PC909 Lufthansa LH783 (Jo)	RGN 1620 BKK 1815 BKK 2345	685	J16: Yangon Full Day sightseeing and flights travel		Angkor Village Resort (agoda ID: 36495751 127,30 CHF per night Budget: Double Room, Pick Up Airport confirmed)				Leng paid Europapark CHF. 452-- for 2 persons (deduct from total trip Indo)				
19 19 Vendredi	6 décembre	Lufthansa LH783 (Jo) Lufthansa LH1214 (Lilo)	FKT 0905 GVA 1016				Angkor H				Leng paid Ovronnaz CHF. 497.--				
20 20 Samedi	7 décembre				J2: Angkor J2		Avant								
21 21 Dimanche	8 décembre				J3: Angkor J3										
22 22 Lundi	9 décembre				J4: Angkor J4										
23 23 Mardi	10 décembre	Bangkok Airways PC914 Lufthansa LH773	REP 1535 BKK 2350	BKK 1830	Angkor J: Voyage (2h d'autobus + BKK aéroport)						Reservation PC914 (REP-BKK): T.FUNQ Reservation LH773 T.FUNQ: 829217122537 & 829217122538				
23 23 Mercredi	11 décembre	Lufthansa LH773 Lufthansa LH1214	FKT 0905	FKT 0600 GVA 1016	Voyage										
Après		2 VISA Cambodge			60				2 VISA Cambodge			80			
												Payé 4648	7457		
													12005		
TOTAL 1p Lionel		3 534	Transport 1p			1 019	Jour pip			2 436	Hotel Lio	29	Balance		-1 014

TRAVEL SHEETS DRAWBACKS

- ▶ Lack of consistency from a trip to another
- ▶ Made for 2 persons only
- ▶ Budget calculation gets complex when subgroups
- ▶ Excel skills required to make a new trip
- ▶ Errors are easily done (fragile)
- ▶ Gets a bit messy at the end, especially when collaboration on the same file
- ▶ Map has to be done 'by hand'



PLAN A TRIP WAS
AS LONG AT THE
TRIP ITSELF

But this was before...

A silhouette of the Borobudur temple complex in Indonesia, featuring its iconic tiered stupas, set against a warm orange and yellow sunset sky.

THESE ARE MY
NEEDS ...

... but what about others?

PERSONAS

Andy is travelling alone

- ▶ Andy has 35 years old
- ▶ He uses the app to plan a **three weeks trip to Australia.**
- ▶ His preferred device will be his cell phone (iPhone 6) but sometimes will go to an internet cafe too.
- ▶ He wants to see his trip on a map and estimate his budget mainly *before* leaving to Australia.
- ▶ Only big expenses like flights, hotels and car rental are managed through the app. The rest is improvised and not recorded.
- ▶ Bank withdrawn are recorded with the app and all is payed cash (but not recorded).



PERSONAS

A couple travelling together

- ▶ 30 years old
- ▶ They travel **two weeks to Bali**
- ▶ They use a computer to plan the trip *before* and a cell phone *during* the trip through hotel wifi.
- ▶ Most is recorded and paid *before* the trip but some updates *during* the trip. They want to keep an eye on their trip expenses and use the app to make their budget calculation.
- ▶ Records Flights, Hotels and excursions.
- ▶ The couple have mainly common expenses, except a few personal expenses.



PERSONAS

5 friends travelling together

- ▶ Around 20 years old.
- ▶ **4 days trip to London**
- ▶ They use their cellphone (Android mainly).
- ▶ Use of the app mainly *during* the trip. Real-time use.
- ▶ They all meet in London and some will record their flight separately.
- ▶ The rest of the expenses, like museums, bars and other expenses are registered only when payed in common by someone.



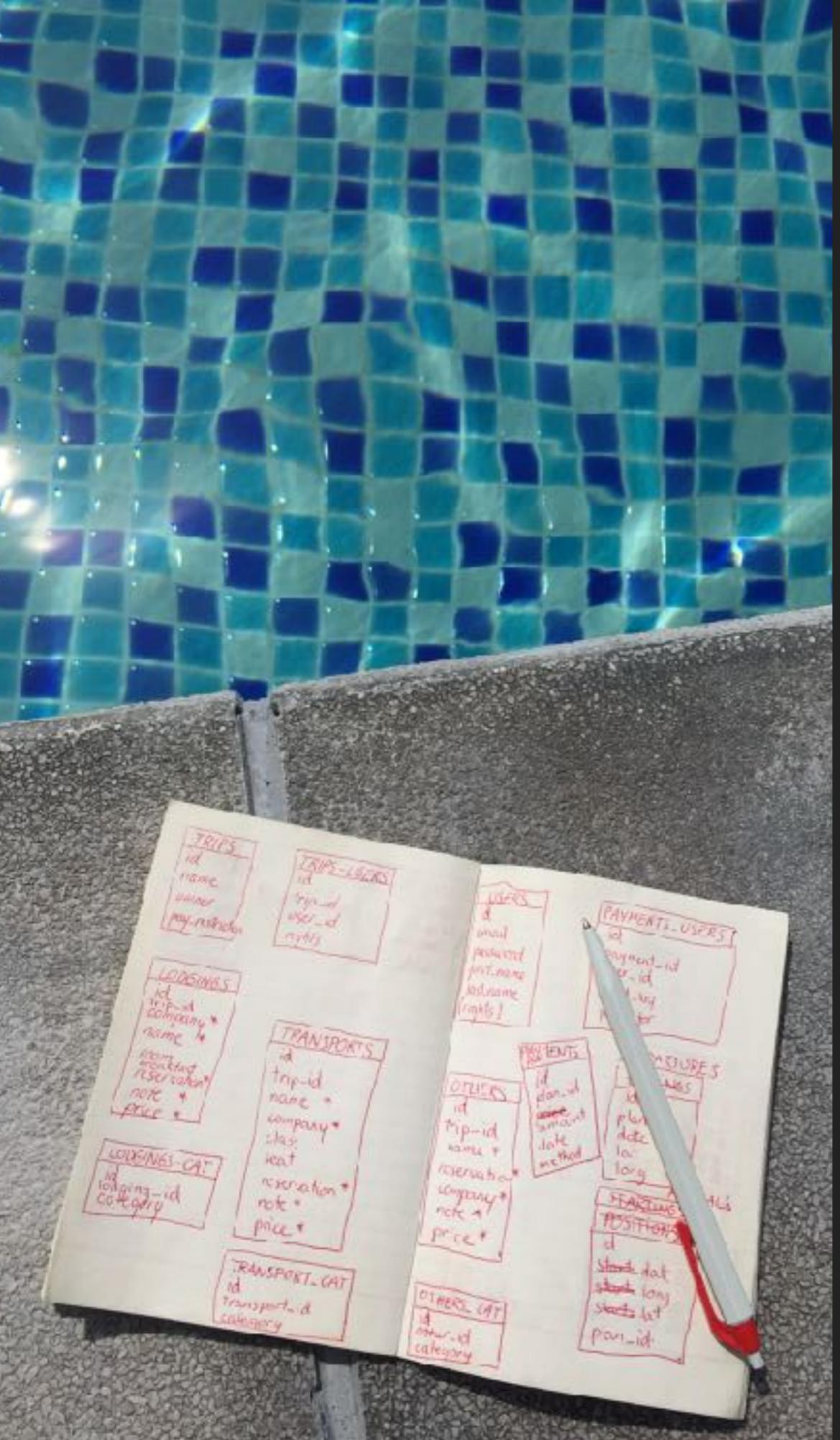
REQUIREMENTS



- ▶ **Desktop** version is used before and after the trip to plan main actions
- ▶ The **mobile** version is almost even more important, as it is used during the trip
- ▶ App is used to **Plan**, **Map** and make the **Budget**
- ▶ Must be **easy** to use (user-friendly)
- ▶ A few clicks to record an entry, should be **fast**
- ▶ The app should be very **flexible**

SHARE MY TRIP

ARCHITECTURE



ARCHITECTURE

DATABASE

TRIP PLANNING WORKFLOW

→ BEFORE THE TRIP

- ▶ Define the trip place and what to do/visit
- ▶ Set the main action dates (mostly without any price yet)
- ▶ Contact a travel agency on site and agree with a tour (and price)
- ▶ Once sure about the trip structure
- ▶ Confirm with the travel agency
- ▶ Make Visas, vaccination, etc...
- ▶ Book hotels/expenses that need to be paid

DATABASE

Trip dates not required and editable any time

Action dates not required and editable any time. Action prices also

Notes field can be used for any information

to be added afterwards

in several accounts

out of the trip scope

details fields editable

CONCLUSIONS

REQUIRED FIELDS

Only action name and type are required. All fields should be editable anytime

PAYMENT STATUS

Not priced
 Nothing paid
 Partially paid
 All paid
 Overpaid

→ DURING THE TRIP

- ▶ Pay the second account on site for the travel agency
- ▶ Enter and pay different expenses during the trip

What's left to pay? What amount of money to bring

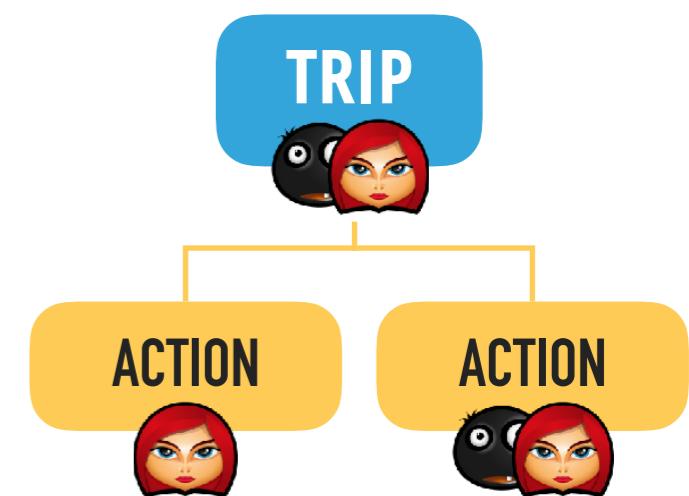
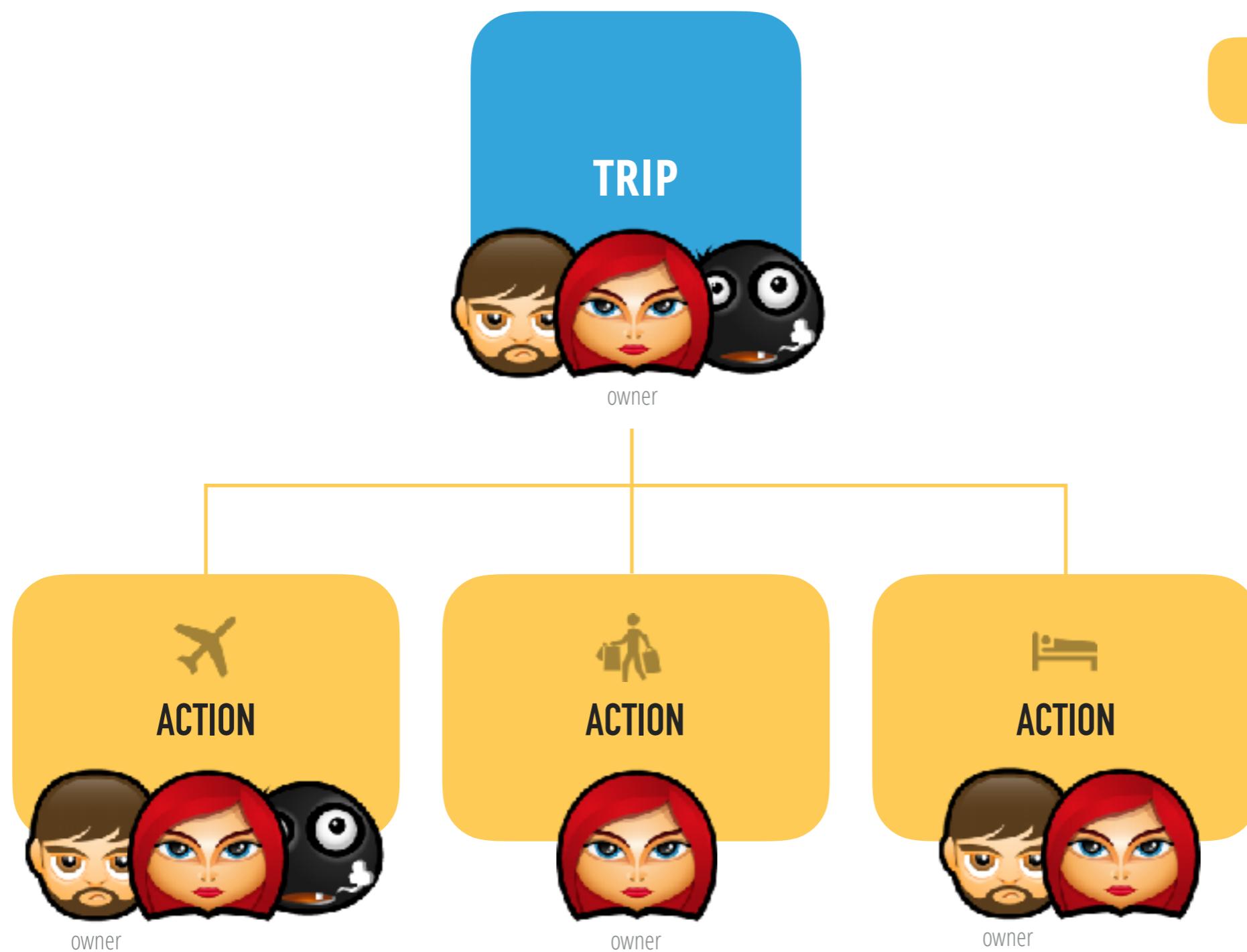
Always keep an eye on the trip budget

→ AFTER THE TRIP

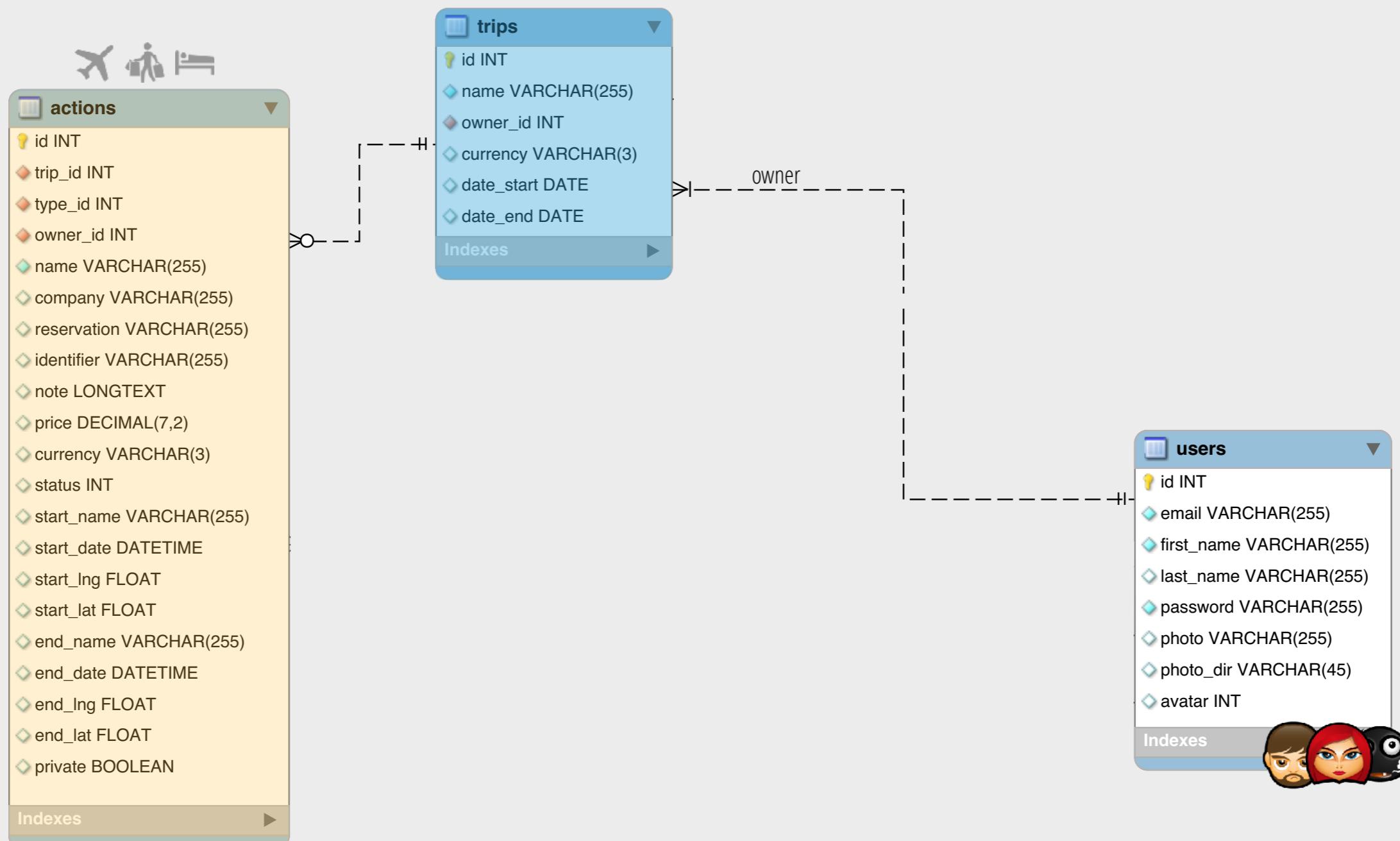
- ▶ Get credit card bills and update with the exact amount taken

Any payment should be editable

USERS, TRIPS AND ACTIONS

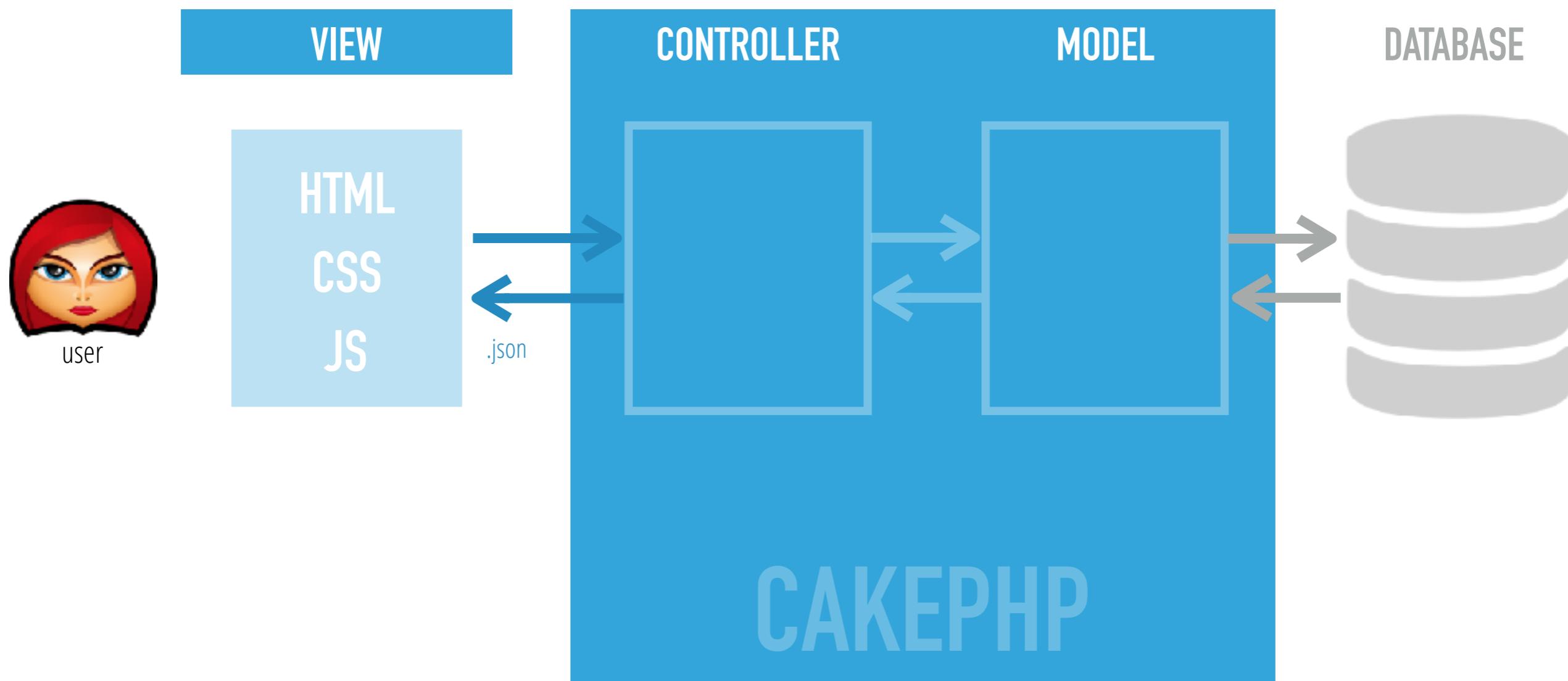


SHARE MY TRIP: ARCHITECTURE



DATABASE

MODEL-VIEW-CONTROLLER



SHARE MY TRIP

USER EXPERIENCE

Shared with:

<input checked="" type="checkbox"/> Lionel	<input checked="" type="checkbox"/> Leng	<input checked="" type="checkbox"/> All
<input checked="" type="checkbox"/> Bob	<input checked="" type="checkbox"/> Jack	

Share

Define the participants for this action

<input checked="" type="checkbox"/> Me	<input checked="" type="checkbox"/> Leng	All
Bob	Jack	

Share

Participants that share this action with me

 tata TATA

 titi TITI

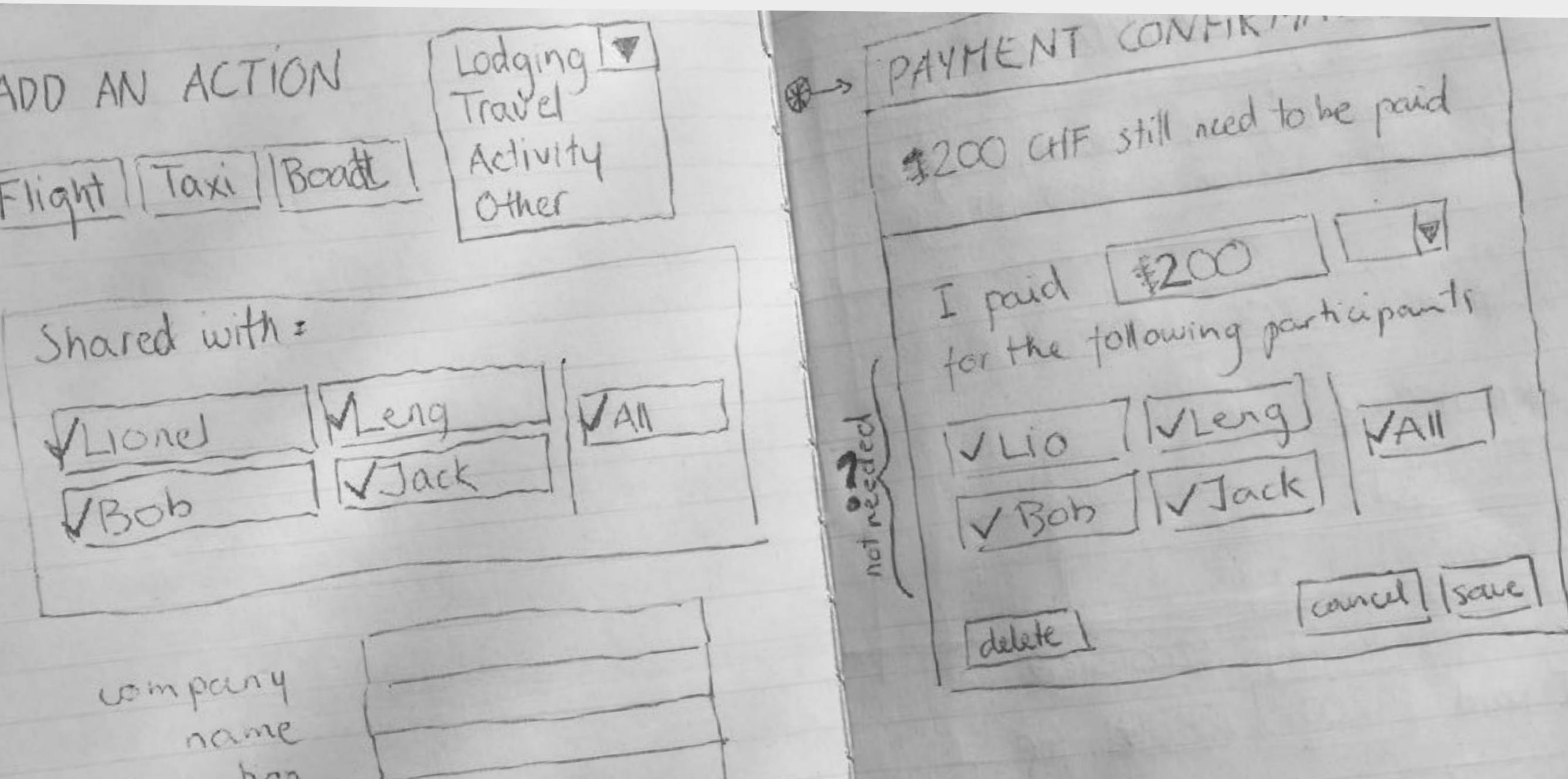
Select all Only me

USER EXPERIENCE

PROTOTYPES

PAPER PROTOTYPE FEEDBACK

- ✓ ► Simplify payment procedure



PAPER PROTOTYPE FEEDBACK

- ▶ Help to build the database schema
- ✓ ▶ Date / Time : 2 fields instead of a single field



INTERACTIVE PROTOTYPE for Mobile



INTERACTIVE PROTOTYPE

for Desktop

The screenshot displays a desktop application interface for 'ShareMyTrip Thailand 2016'. The main window shows a calendar for December 2016, with days 1 through 3 highlighted. A sidebar on the left lists previous trips: 'Thailand with Leng, Bob' and 'Kenya with Leng'. The main content area is divided into sections for 'Plan', 'Map', and 'Costs'. The 'Costs' section is active, showing a table of expenses and a summary.

Costs Table:

Booking	From	Date	Lionel	Leng	Bob	TOTAL
Geneva - Bangkok	Geneva	2016-12-01	0	800	-	800
Chatrium Riverside		2016-12-03	180	-60	-60	60
Pickup		2016-12-04	0	0	0	50
ATM Bangkok		2016-12-04	300	-	-	300

Summary:

- The total cost of your trip is **1'210**
- from which 50 is still to pay...
- You own 740 CHF to Leng
- Bob own you 60 CHF

Bottom Navigation:

- Delete
- Cancel
- Save

SHARE MY TRIP: USER EXPERIENCE

INTERACTIVE PROTOTYPE FEEDBACK

Chris (30)

- 2 ▶ Add a [trip currency](#) and make it work

- ✓ ▶ Add a [trip owner](#). Only the owner can:
 - ▶ delete a trip
 - ▶ edit a trip
 - ▶ add/remove participants to the trip

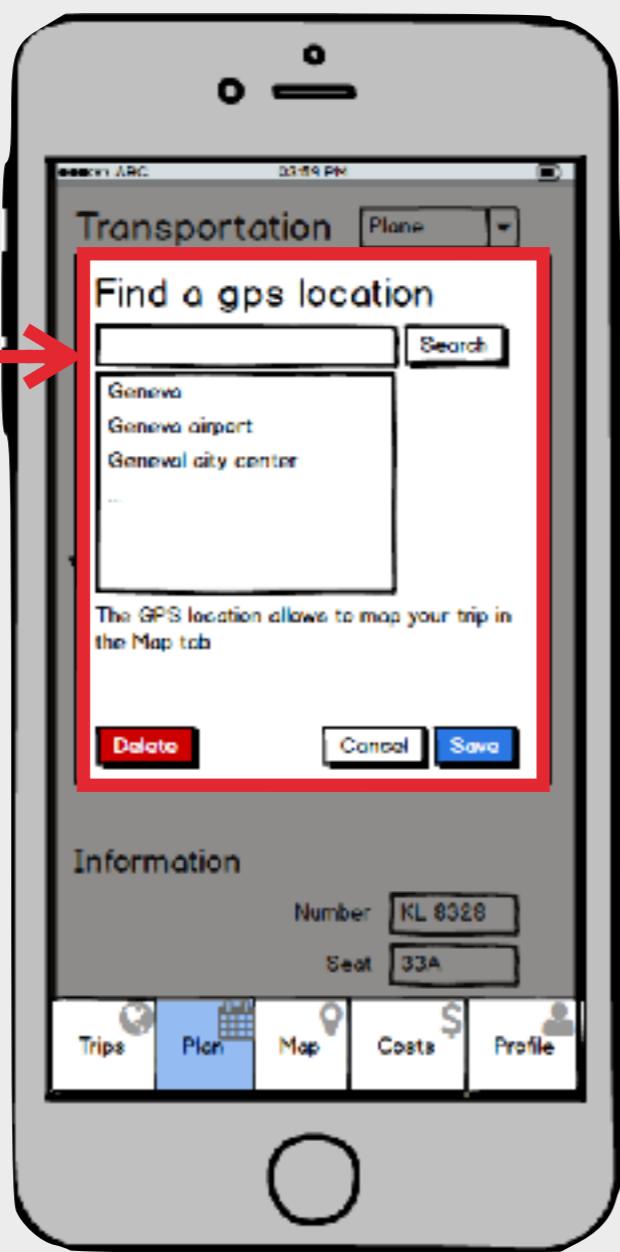
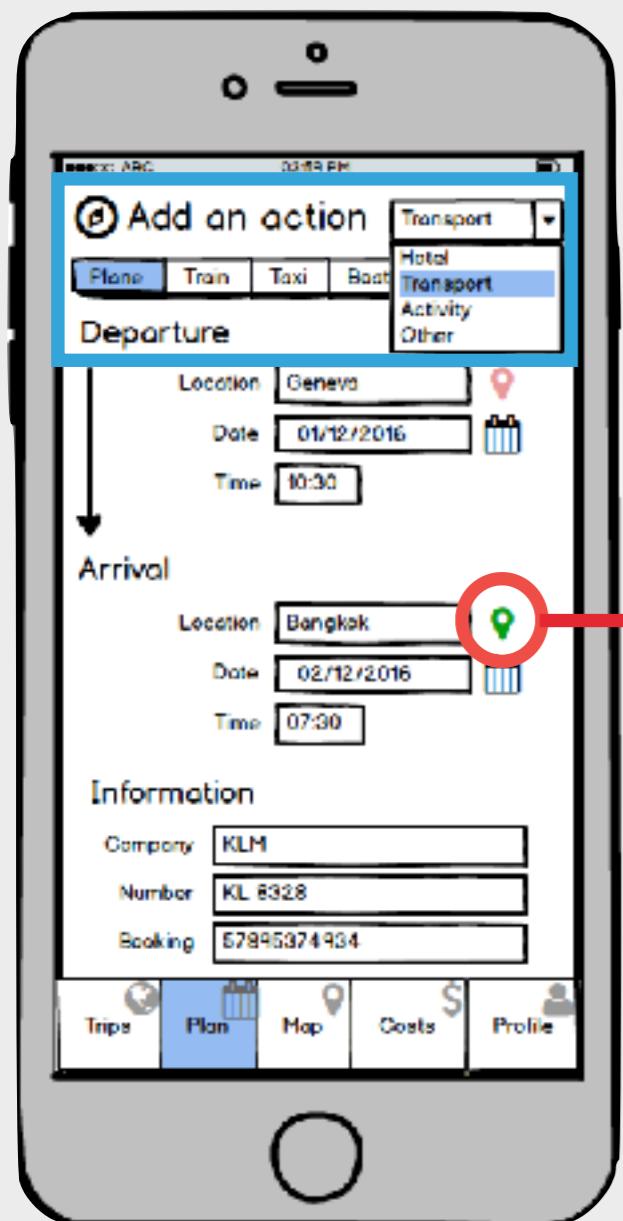
- ✓ ▶ Add an [action owner](#). Only the action owner can:
 - ▶ delete the action

- ✓ ▶ Location directly provided by google map

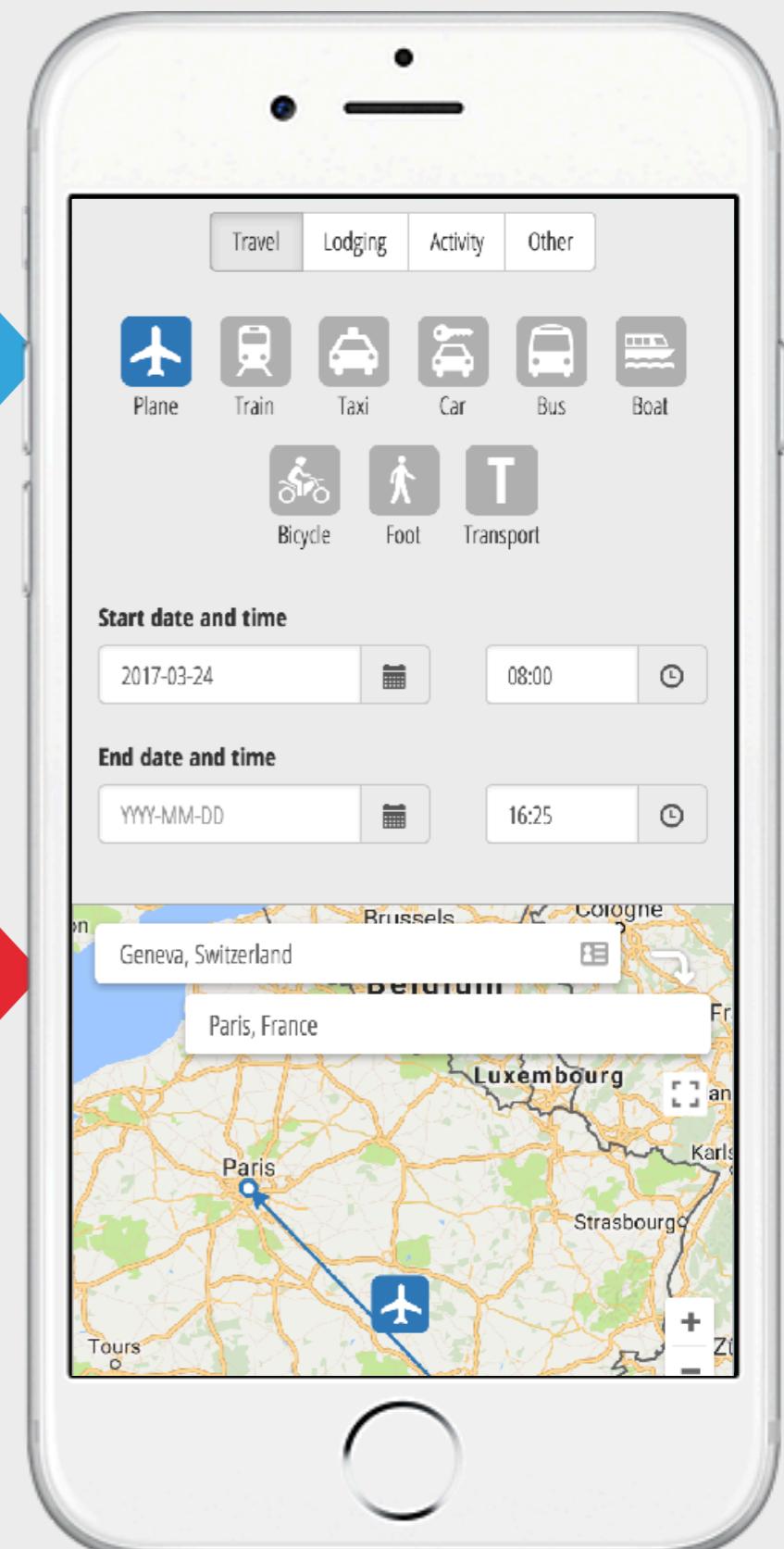
toto view (trip owner)

tata view

INTERACTIVE PROTOTYPE FEEDBACK



FASTER



SIMPLER

SHARE MY TRIP: USER EXPERIENCE

INTERACTIVE PROTOTYPE FEEDBACK

Michele (35-40)



- 2 ► Actions shared with everyone and trip participants can decide to join actions (unless private actions)
- ✓ ► Emphasis trip 'details' in the detriment of trip 'settings'

Thailand
with Leng, Bob

1-14 December 2016
2050 CHF

This trip starts in 26 days

Trip settings

CLEARER

Settings

Myanmar

23 July - 7 August 2017

With tata, titi

Add/Remove

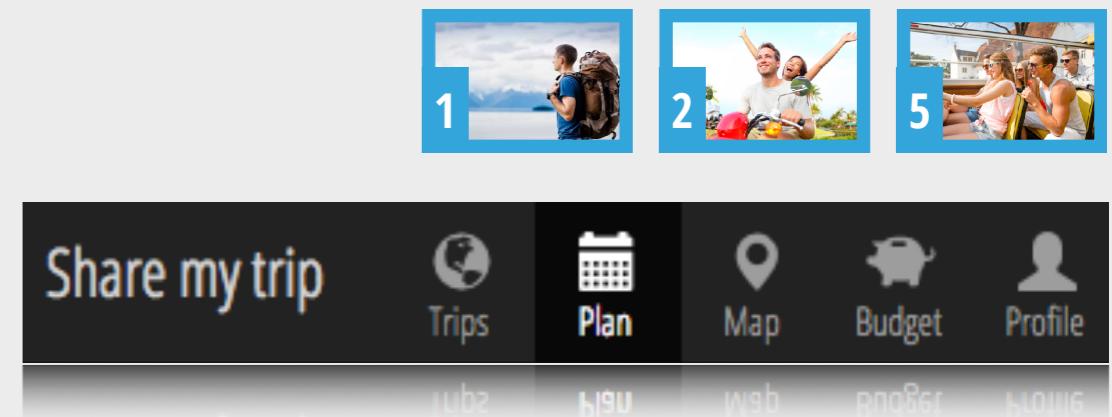
Plan this trip

SHARE MY TRIP: USER EXPERIENCE

HTML PROTOTYPE FEEDBACK

▶ Mélanie (22... 37)

- ▶ Back to homepage when click on the site name



- ▶ Navigation explained on first visit
- 2 ▶ Button 'share' with others even if they don't participate

▶ Damien (35-40?)

- ▶ Button 'I paid my part' in payments
- 2 ▶ All actions public except when 'private' is checked



OF THE DAY
NO MORE YOUNG FRIENDS...

PLAN ACTIONS

In order to have a good overview the trip, we should be able to see all these informations in a minimum area while still remains clear:



Thailand with

23 - 30 March 2017

+ Add an action

Actions	Jean-Christophe	titi	tata	tutu	Lionel	Albert	Brad	Angelina	George	Paul	PRICE
19 euros	1000	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	2000 USD
McDonald's	23 EUR	0	0	0	0	0	0	0	0	0	120 EUR
my action	1218	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	2001 EUR
pay	3	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	
foot cheap	26	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	0 EUR	
1 March											
15:14 Geneva Flight to Bangkok 12:23 Bangkok airport	1800	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	2400 CHF
2 March											
Tour operator in Thailand excursion Super Rich Thailand Currency Exchange	0	0	0	0	0	0	0	0	0	0	1000
12:30 Bangkok airport Taxi to Hotel Hilton Sukhumvit Bangkok	0 USD	0 USD	0 USD	0 USD	779 USD	0 USD	392 USD				
13:33 taxi	100	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	100 USD
18:00 Hilton Sukhumvit Bangkok 2 nights Hotel 10:00	0 CHF	0 CHF	560 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	0 CHF	560 CHF
7 March											
14:28 crash	0 USD	0	0	0	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	400 USD
8 March											
test	178 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	0 \$	178 \$
22 March											
ssb b3	753	0	0 CHF	0 CHF	0	0	0	0	0	0	678 CHF
TOTAL paid	5101 \$	0 \$	560 \$	0 \$	779 \$	0 \$	6440 \$				
TOTAL trip	2064 \$	1618 \$	1611 \$	1657 \$	855 \$	1198 \$	343 \$	71 \$	343 \$	71 \$	9829 \$
Still to pay	-3038 \$	1618 \$	1051 \$	1657 \$	76 \$	1198 \$	343 \$	71 \$	343 \$	71 \$	3390 \$

0-10 TRAVEL BUDDIES

SCALABILITY

SHARE MY TRIP

DEMO

SHARE MY TRIP

FUTURE DEVELOPMENTS

VERSION 2.0

- ▶ Implement **currency** for price and payments with a rate coming from an API
- ▶ **My profile page:** Add additional functionalities like
 - ▶ Crop uploaded image
 - ▶ Change password
 - ▶ Delete account

TRIP PAGE

- ▶ Show a trip summary for each trip with:

- ▶ Time left before leaving

Departure in 2 months and 4 days

Settings

Berlin

1 June - 4 June 2017

With



Cédric



Add/Remove

I still have to pay 35 CHF.

This trip cost me 820 CHF for 4 days (205 CHF/day).

Plan this trip

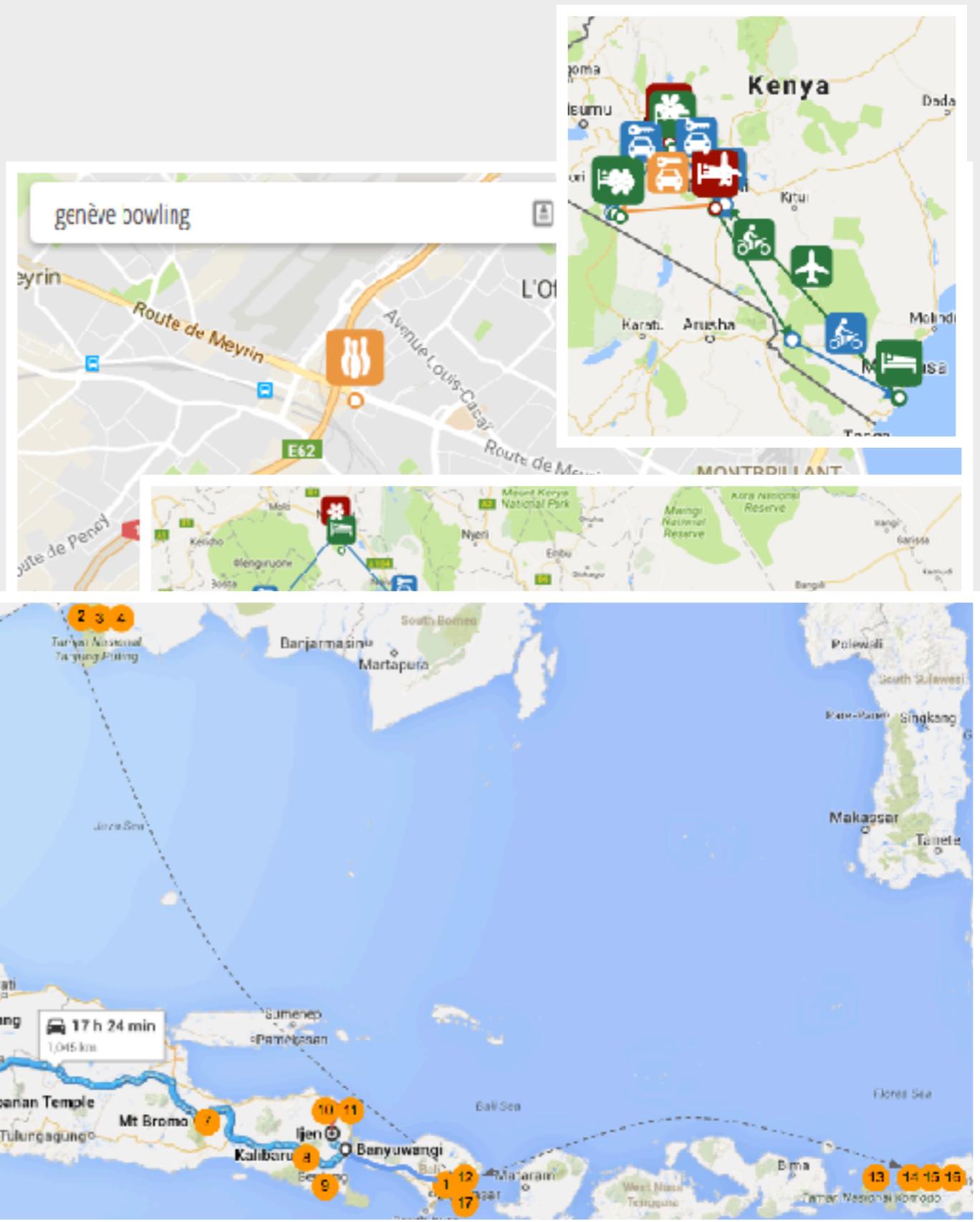
- ▶ My expenses

- ▶ Total cost of the trip

- ▶ Statistics like trip duration, average cost per day...

MAP PAGE

- ▶ Merge actions when de-zoom
- ▶ Select from multiple choices
- ▶ Air / Ground path



BUDGET PAGE

- ▶ Help users to visualise who should refund to who
- ▶ How can we record refunds?

	Toto	Tata	Titi	Trip
TOTAL paid	2200 EUR	800 EUR	0 EUR	3000 EUR
TOTAL trip	1600 EUR	1400 EUR	200 EUR	3200 EUR
Still to pay	-600 EUR	600 EUR	200 EUR	200 EUR

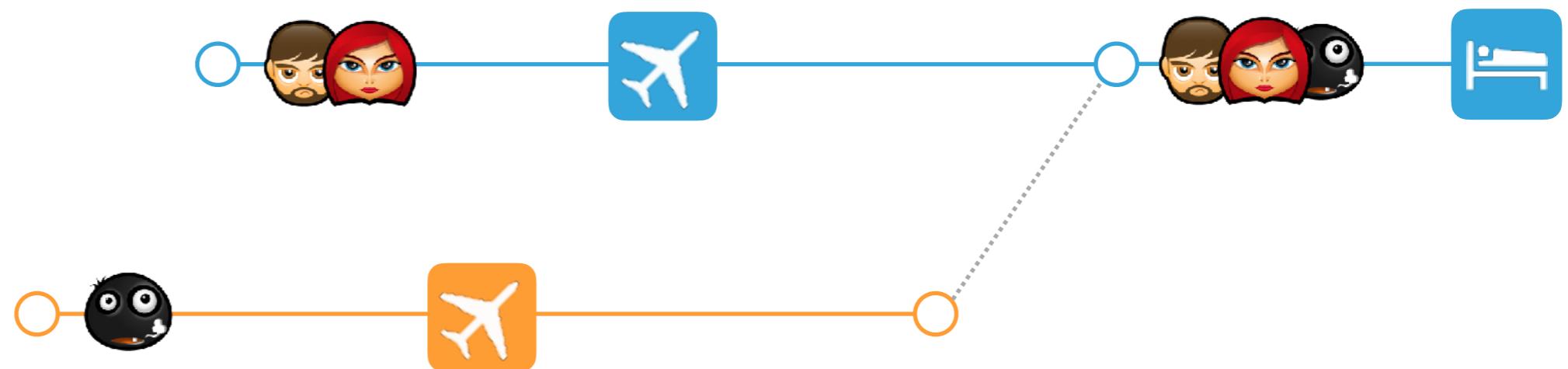
	Toto	Tata	Titi	Trip
TOTAL paid	2400 EUR	800 EUR	0 EUR	3200 EUR
TOTAL trip	1600 EUR	1400 EUR	200 EUR	3200 EUR
Still to pay	-800 EUR	600 EUR	200 EUR	0 EUR

	Toto	Tata	Titi	Trip
TOTAL paid	1400 EUR	800 EUR	0 EUR	2200 EUR
TOTAL trip	1600 EUR	1400 EUR	200 EUR	3200 EUR
Still to pay	200 EUR	600 EUR	200 EUR	1000 EUR

PLAN PAGE: COMPLEX TIMELINE

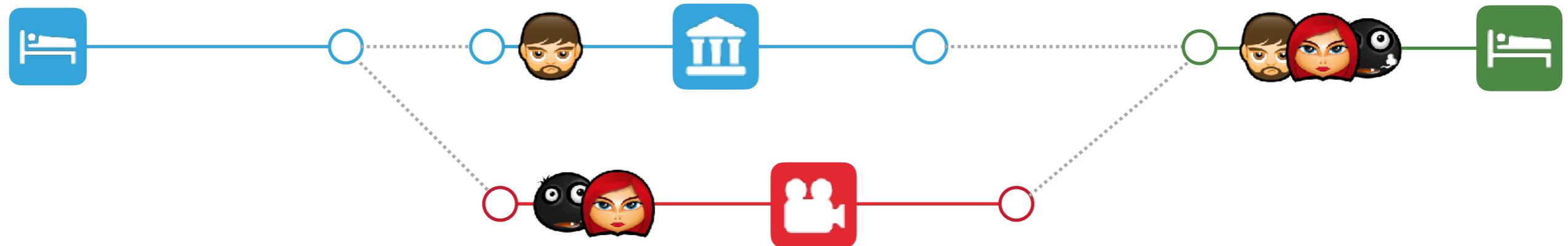
0h 6h 12h 18h 24h

12 March



0h 6h 12h 18h 24h

13 March



A silhouette of a traditional Balinese temple complex, featuring several tiered roofs and spires, set against a bright orange sunset sky. The foreground is dark and indistinct.

Thank you

Questions ?