# TripDream

Long trips planning system

# Software Design Document

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[Trip Dream], [Melisa Gabay And Gil Davidi]

# Table of Contents

# 1. Introduction
Always start with a few sentences before the first sub section.

### 1.1. System Overview
 Tripdream is a system plan costume long trips. The system will consider the destination, budget, trip's length, user's character and age.

### 1.2. Problem Descripltion
While planning long trips we have to invest time, to implement deep searches on social media based on "wisdom of the crowd", flight's, hotels and attractions websites.
During this process, we need to learn about the places we would want to visit while match them to the trip's character and budget.
In order to do it, we have to select recommendations throughout the process, which makes difficulties and many efforts.
Tripdream tends to solve this in order to shorten the time of planning the trip for the user, and to give him the best solution considering:
a.   Efficient planning
b.   Saving money
c.   Matching the trip to the user's character
d.   Finding friends considering all the above.

### 1.3. Goals
1.3.1 The system will allow to plan long trips in short time.
1.3.2 The system will help to match the trip to the user's character and personal needs.
1.3.2 Sub-goal: The system will help to find friends that matches the user's trip.

### 1.4. Scope
The scope of the system is the trips scope. Trips scope is part of the tourism scope. This scope contains all kinds of tourists and their destinations around the world.

### 1.5. Glossary

This is the glossary of the project:

- Trip- an act of going to a place and returning; a journey or excursion, especially for pleasure.
  The trip's length changes, from short trips that lasts few hours, to long trips that lasts months and even years.
- Destination- a place in the trip, like: attractions, nature sites, parking lots, hotels, restaurants etc.

- Trip's planning- The process where the system calculates for the user the next parameters: trip's path, time and budget limit for every destination and classifications for the different destinations.
- User's character- the parameter that has been entered when the user registered, like: chill, hiking, shopping, couples, families etc.
- Match- matching between two users by the same information as age and user's character.
- Long trip- a trip that lasts a week minimum.
- Budget- the amount of money allocated for the trip by the user. The system will show the user the minimum budget for the trip.
- Path- connection between the destinations in chronological order by the trip's plan.

## 2. System Architecture – System Context Diagram

The system is composed of 2 user types. The main one is the 'Traveler',  he plans trips by personal parameters using the system. In additional, he can save the trips for personal list that he can edit and delete from it. The second user is the 'Friend Searcher' , he can find friend generally or by  his trips.
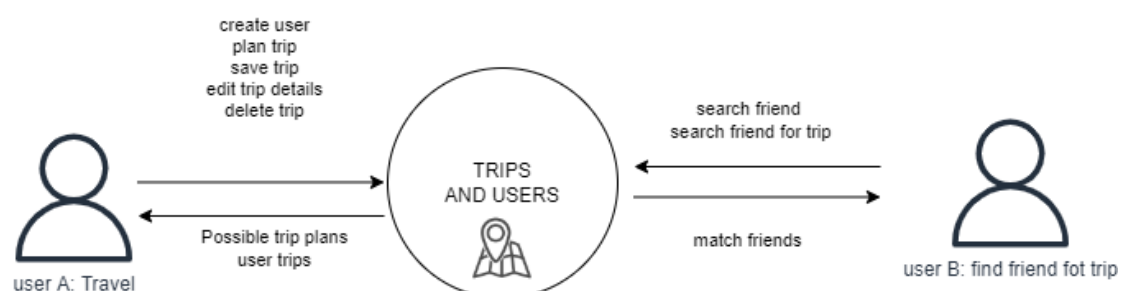
# 3. System Design
## 3.1. Data Design

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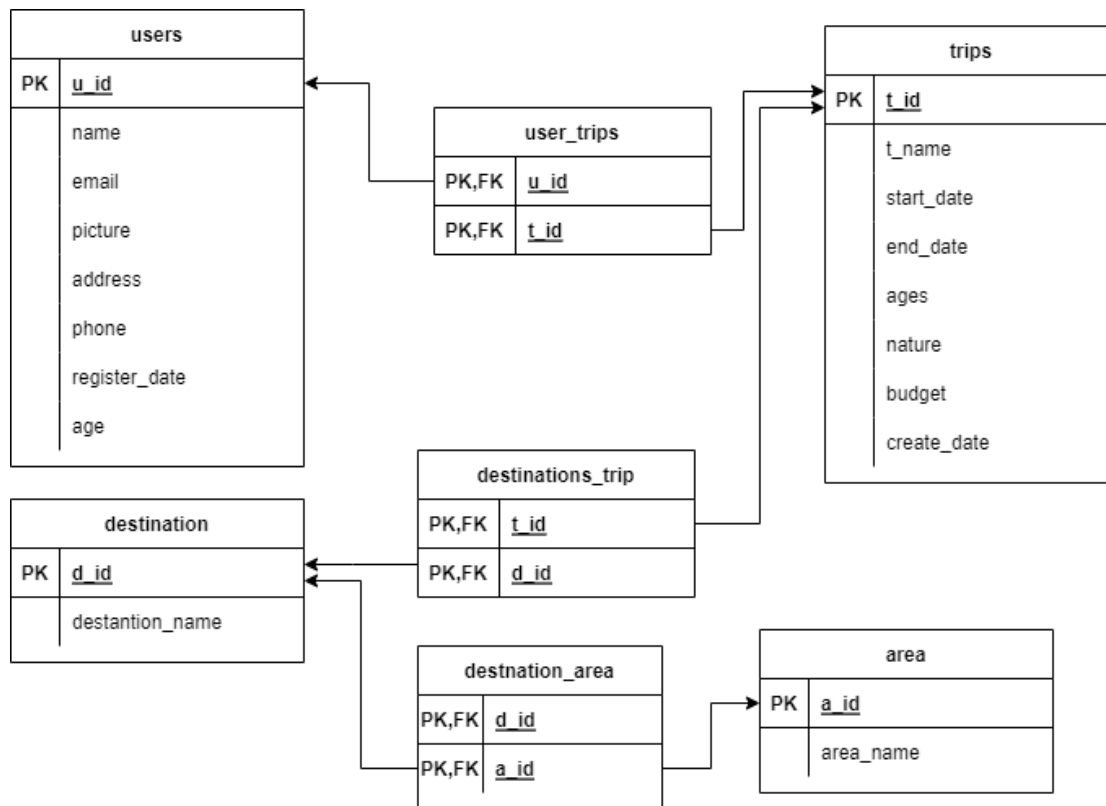
JSON structure:

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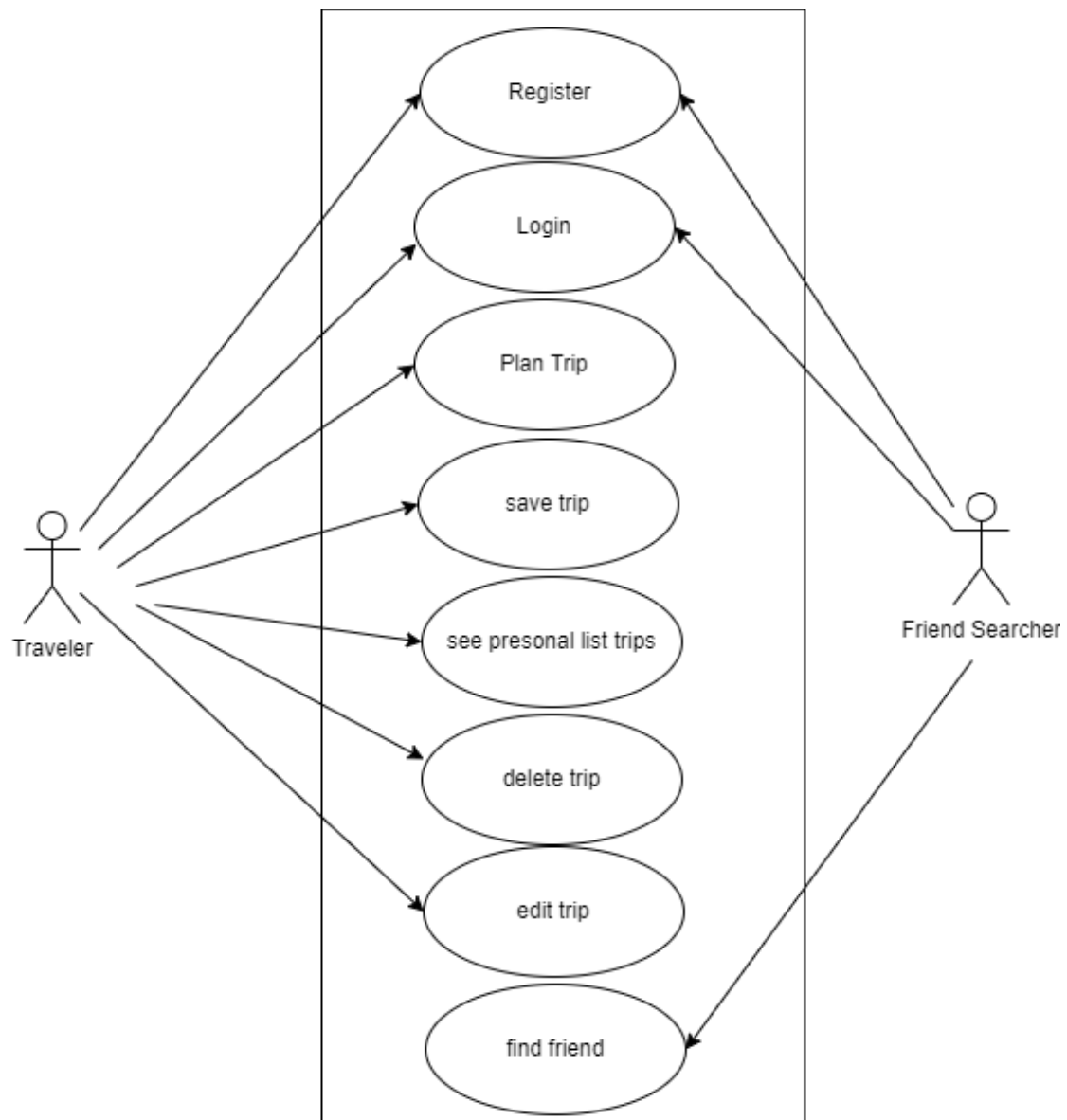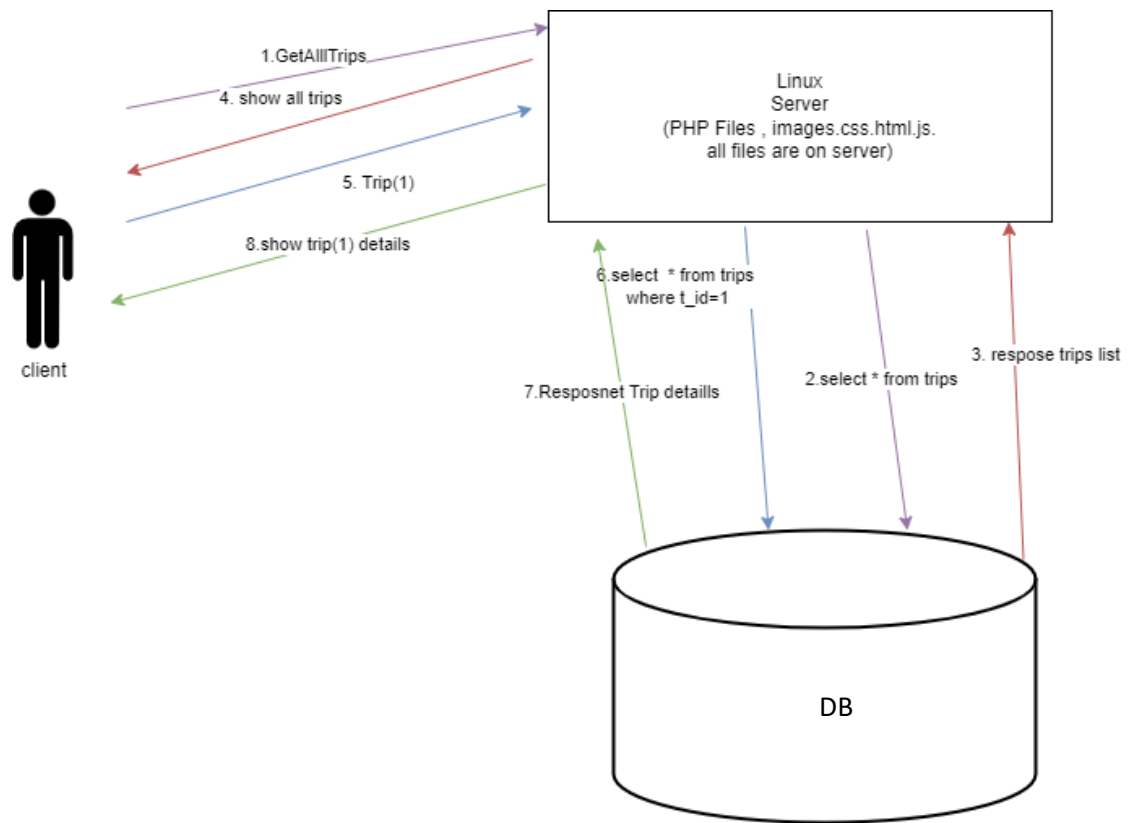
3.2.  Structural Design

Class Diagram:
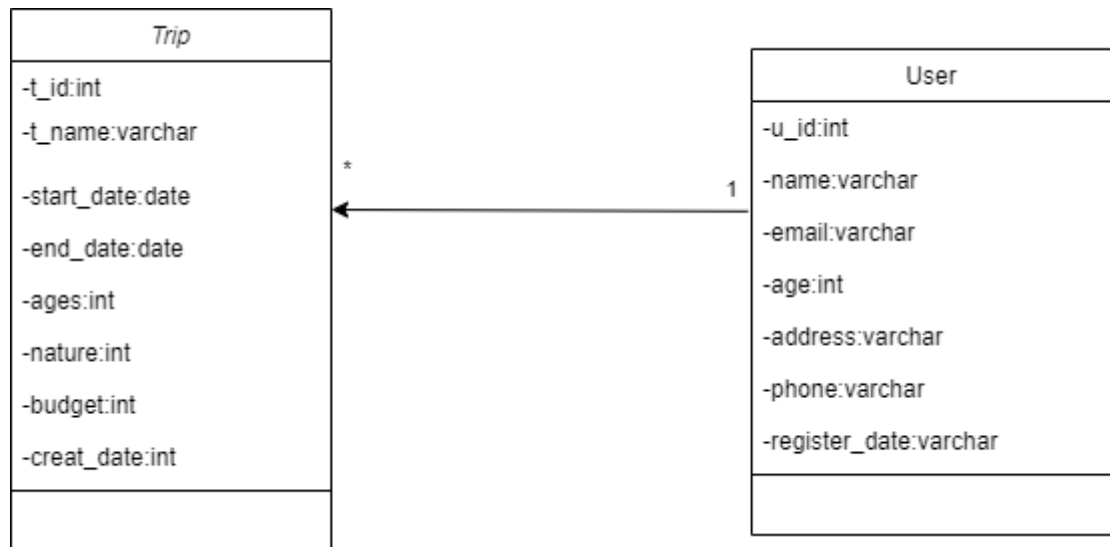
3.3. Interaction Design
Diagram Use Case

## 4. Software Architecture

The followings are examples to 2 of the system's main flows.

## 5. Verification and Validation

In order to insure a stable and reliable system, these tests and verification should be completed and passed.

- A user can log in to the system.

- A user can log out of the system.

- A user can plan a trip.

- A user will be able to delete/edit a trip.

- A user will see all of its trips in "my trips" page.

 - There must be one destination for a trip.

- Trip search requires entering the nature of the trip and ages.

- It is not possible to search for areas that are in another country from their actual location.

- It is not possible to search for countries that are on another continent than their true location.

-A user can find friend by his trips or not.

- A non-connected user cannot plan trips.