TALLINN UNIVERSITY OF TECHNOLOGY

School of Information Technologies

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TOURIST ATTRACTION PICKER

Building Distributed Systems

Project Scope

Supervisor: Andres Käver

Tallinn 2023

Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

Author: Kirke Narusk

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1 Introduction

The aim of this project is to create an application of tourist attractions. The main purpose is to help users to choose the best attractions to visit based on their criteria and previous picks / history. Users are also the ones that determine majority of content. So, the application is mostly based on crowdsourcing.

There are many applications that help to choose the most suitable travel destination based on different criteria (TravelRepublic, travelpicker, Earth Roulette, Tripzard) but few applications to find tourist attractions using criteria that is most suitable for specific user. The most famous is probably TripAdvisor that has some functionality that this projects aims for but does not cover enough criteria and is less personalized.

International tourism (overnight trips) has steadily grown for decades and has almost doubled in 20 years [1]. In recent years (prior to COVID-19) the number of foreign visitors in Estonia have also hit records [2]. The world is experiencing a significant and rapid expansion of the global middle class which will bring along even more people travelling around the world.

This application will take users' input about the attractions (ratings, descriptions, characteristics) and change the content and information about the attractions dynamically. It will also keep records about the attractions user has visited in order to suggest places that may interest her based on other users' records that have similar taste.

Attractions are divided into categories (e.g Museums, Landmarks, Theatres, Scenic routes) and each attraction can belong to several categories. Categories can also have subcategories (e.g. Nature > Hiking trails > Educational trail) but each category cannot have more than one parent category.

Attraction has aadress associated with it. Address in turn is associated with city (town, village or some other settelment) and country.

Attractions have also characteristics that describe and characterize them (e.g. family-friendly, historical, innovative, natural etc). These can be used as criteria when searching attractions. Users can define characteristics for attractions and attractions overall characteristics and their weight change accordingly. Users can also choose their

favorite criteria and give them importance (1-10), so that the application can suggest them attractions that correspond to these criteria.

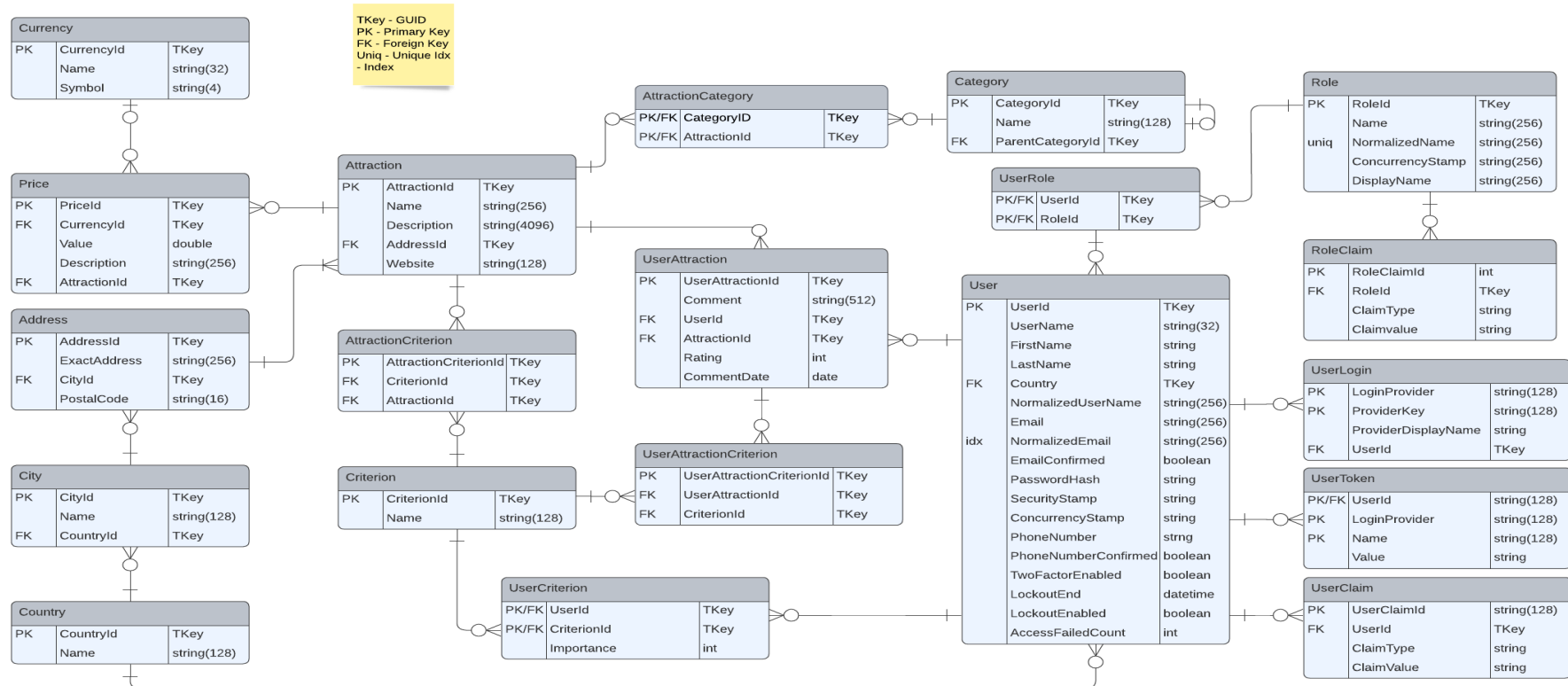Attractions may have price(s) and price has a currency.

2 ERD Schema

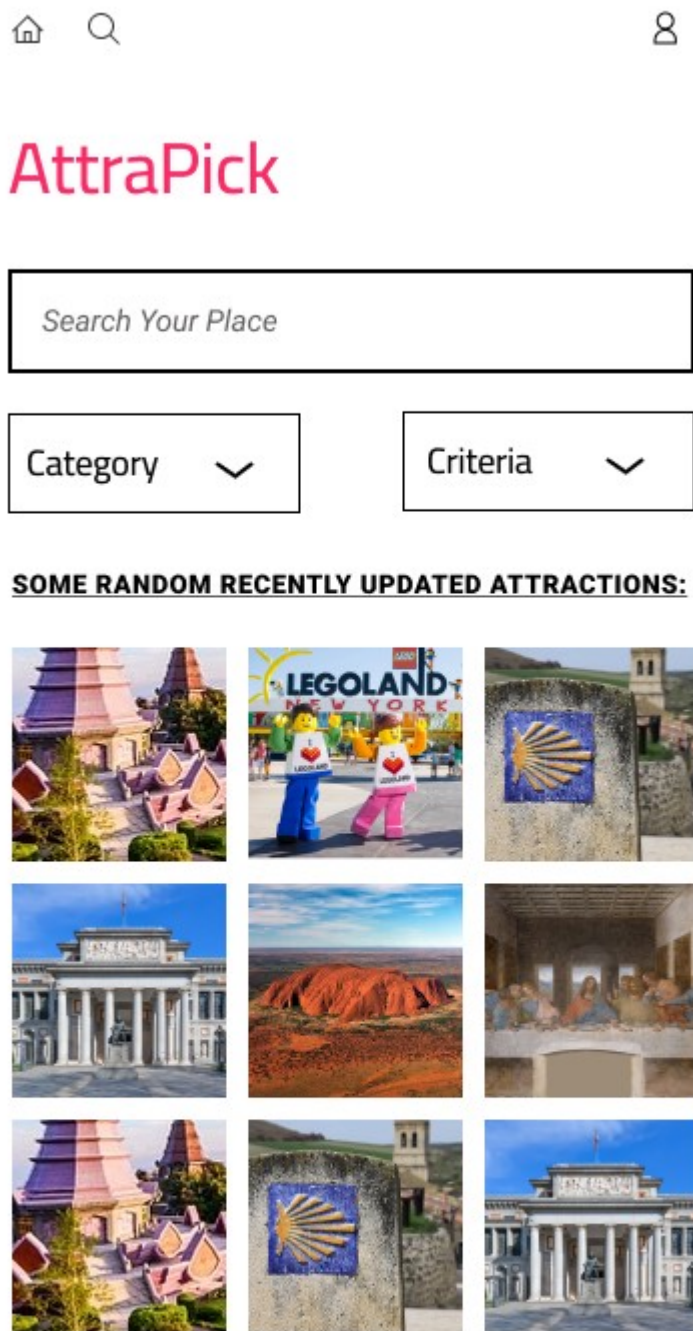*Figure 1: Entity relationship diagram*

3 GUI Sketches

Figure 2: Startup page

Prado Museum

4.7 [59 000 RATERS]

C. DE RUIZ DE ALARCÓN, 23, 28014 MADRID, SPAIN

Prices ⌄	⌂

THE PRADO MUSEUM, OFFICIALLY KNOWN AS MUSEO NACIONAL DEL PRADO, IS THE MAIN SPANISH NATIONAL ART MUSEUM, LOCATED IN CENTRAL MADRID. IT IS WIDELY CONSIDERED TO HOUSE ONE OF THE WORLD'S FINEST COLLECTIONS OF EUROPEAN ART, DATING FROM THE 12TH CENTURY TO THE EARLY 20TH CENTURY, BASED ON THE FORMER SPANISH ROYAL COLLECTION, AND THE SINGLE BEST COLLECTION OF SPANISH ART. FOUNDED AS A MUSEUM OF PAINTINGS AND SCULPTURE IN 1819, IT ALSO CONTAINS IMPORTANT COLLECTIONS OF OTHER TYPES OF WORKS. THE PRADO MUSEUM IS ONE OF THE MOST VISITED SITES IN THE WORLD, AND IS CONSIDERED ONE OF THE GREATEST ART MUSEUMS IN THE WORLD. THE NUMEROUS WORKS BY FRANCISCO GOYA, THE SINGLE MOST EXTENSIVELY REPRESENTED ARTIST, AS WELL AS BY HIERONYMUS BOSCH, EL GRECO, PETER PAUL RUBENS, TITIAN, AND DIEGO VELÁZQUEZ, ARE SOME OF THE HIGHLIGHTS OF THE COLLECTION. VELÁZQUEZ AND HIS KEEN EYE AND SENSIBILITY WERE ALSO RESPONSIBLE FOR BRINGING MUCH OF THE MUSEUM'S FINE COLLECTION OF ITALIAN MASTERS TO SPAIN, NOW THE LARGEST OUTSIDE ITALY.

JOHN SMITH 1.01.2022

●●●●○

IT'S A NICE MUSEUM WITH MANY GREAT ARTWORKS OF THE HISTORY BUT I FOUND IT WAY TOO OVERCROWDED AND OVERWHELMING. WOULD RECOMMEND TO GO TO THE THYSSEN MUSEUM INSTEAD. ALSO, THEY DON'T ALLOW TO TAKE PICTURES INSIDE. IF YOU DO PLAN TO GO, CONSIDER SPENDING AT LEAST HALF A DAY. IT'S A HUGE MUSEUM WITH LOTS OF ARTWORK AND HISTORY TO ASSIMILATE. IT ALSO HAS A NICE CAFETERIA TO HAVE BREAK WHILE YOU VISIT.

Figure 3: Attraction description view when user is not logged in

Figure 4: Attraction view when user is logged in and wants to comment

Prado Museum

4.7 [59 000 RATERS] ●●●●●

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Prices ▾ | ⌂

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OF THE GREATEST ART MUSEUMS IN THE WORLD... ⌄

COMMENTS ⌄

CRITERIA

cultural | historical | sightseeing

✛ ADD MORE

*Figure 5: Attraction view when user is logged in and
wants to assign criteria to the attraction*

Controllers

Attractions – Available to every user. Can be seen by unauthorized users.

Categories – Available to every user. Can be seen by unauthorized users.

Prices – Price is connected to attraction. All prices all available only to Admins.

Addresses – Address is connected to attraction. All addresses are available only to Admins. Other users can see them in detail view of certain Attraction.

Cities – City is connected to address. All cities are available to Admins. Other users can see them in detail view of certain attraction.

Countries – Country is connected to city.

References

[1] The World Bank, "International tourism, number of arrivals", [Webpage],

https://data.worldbank.org/indicator/ST.INT.ARVL

[2] Statistics Estonia, " Möödunud aasta oli turismis rekordiline", [Webpage],
https://www.stat.ee/artikkel-2018-06-11-moodunud-aasta-oli-turismis-rekordiline