„Kupseco.pl"

Classified Advertisement Website Documentation

1. Objective and scope of the project

1.1. Objective of the work

The purpose of this work is to design and create a website that allows the publication of classified advertisements.

1.2. Scope of the project

- Gathering materials helpful in project implementation
- Defining the requirements
- Description of selected technologies
- Database design
- Design of the user interface and the appearance of the website
- The scheme of the project's operation

2. Roles and division of work

2.1. Roles

Dominik Dudek	Team Lider
Mateusz Malendowski	Engineer
Paweł Kowalczyk	Tester
Patryk Suruło	DevOps
Łukasz Marciniak	DevOps

2.2. Division of work

Purpose and scope of the project	Dominik Dudek Mateusz Malendowski Paweł Kowalczyk Patryk Suruło Łukasz Marciniak
User reporting mechanism	Łukasz Marciniak
Page Layout	Mateusz Malendowski
Advertisement Publication System	Paweł Kowalczyk
Advertisement Search Bar	Patryk Suruło
User Rating System	Dominik Dudek
User Communication System	Łukasz Marciniak
Images uploading in advertisements	Patryk Suruło
Favourites/Watched tabs	Paweł Kowalczyk
Advertisement Visit Counter	Dominik Dudek
Map and localization feature	Mateusz Malendowski
Database Design	Paweł Kowalczyk
Website Design	Mateusz Malendowski

3. Goal of the project

The aim of the project is to create an internet website with classified ads, accessible to all types of users, with clear and legible pages, and simple and quick to use. The project includes:

- designing and creating a database with information about users and advertisements
- website creation and publication
- website synchronization with the database

4. Technologies

4.1. XAMPP 8.0.1

Xampp is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. It will be easy to use and will have all solutions needed for developing and maintaining our server.

4.2. Apache HTTP Server

Apache is a free and open-source cross-platform web server software, released under the terms of Apache License 2.0. Apache is developed and maintained by an open community of developers under the auspices of the Apache Software Foundation. It will allow users to communicate with our website.

4.3. MySQL

MySQL is an open-source relational database management system. A relational database organizes data into one or more data tables in which data types may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. When looking at the types of data that will be stored in the database and the schemas needed, the relational MySQL database will be the best choice. It is a relational model with the possibility of vertical scaling, which will ensure data consistency and all the required functionalities, and it is one of the most popular technologies.

4.4. PHP (Personal Home Page) Language

A scripting programming language used to run scripts on the web server side. It is especially suited for web development and will be helpful in estabilishing communication between our website and database.

4.5. WordPress

The heart of the website will be a WordPress content management system with an open source WooCommerce plugin. They will allow easy configuration of the appearance of the website, as well as offer good integration with the MySQL database management system, and will allow us to easily configure the appearance of the website on mobile devices. WordPress is one of the most popular content management systems in use today,

currently used by over 60 million pages because it allows you to easily create, customize and manage them. The WooCommerce plugin is designed to build e-commerce websites and also offers the ability to freely modify the appearance of the website directly via CSS, HTML and PHP. It is also expandable with many other available plugins. Additionally, WooCommerce offers a high level of security thanks to regular updates.

5. Service project

5.1. Database model
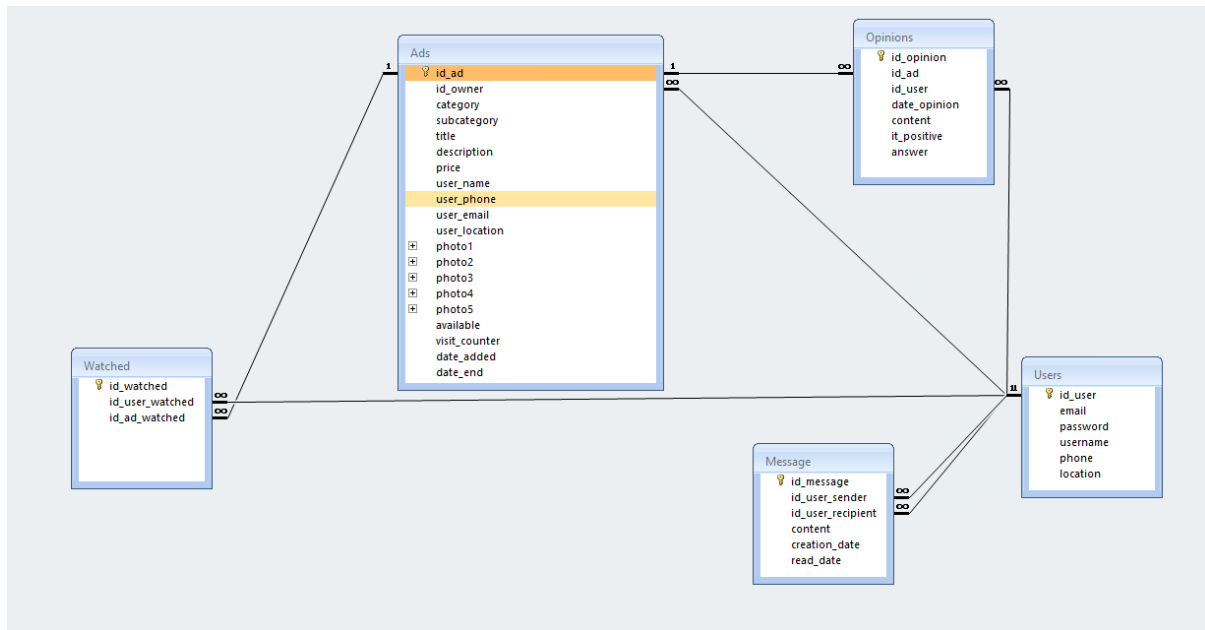
5.1. Created database model

The database contains 5 tables.

The Ads main table contains all the data for the ad.

The Users table stores all information about users.

By applying multiple relationships to multiple Ads and Users tables using the auxiliary Watched table, we provide the ability for multiple users to observe multiple ads.

Likewise, the Opinions table provides the ability to rate multiple postings by multiple users.

The last Message table contains two fields with user foreign keys. Thanks to this solution, the recipient of the message and the sender are in one row of the Message table. By using a 1-to-many relationship, we get the ability to send and receive multiple messages by one user.
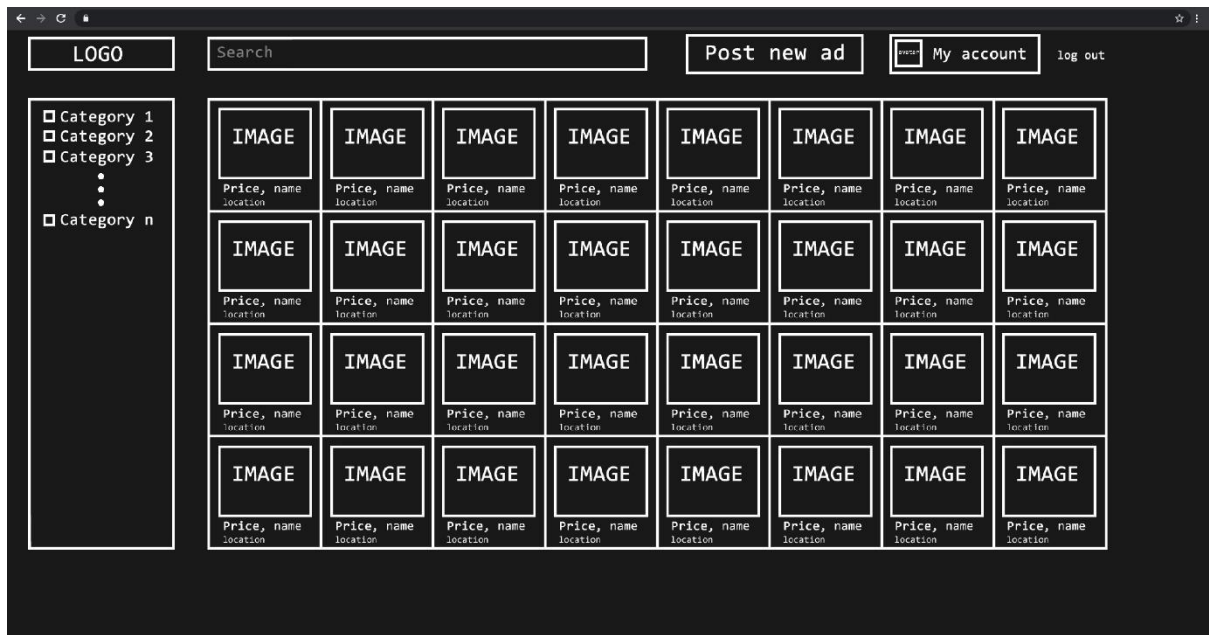
The most frequently performed query will be:

SELECT
    title, user_location, photo1, date_added, price
FROM
    Ads
WHERE
    Title="" AND available = „True" AND date_end > current_date
ORDER BY
    date_end DESC;

5.2. Page Scheme
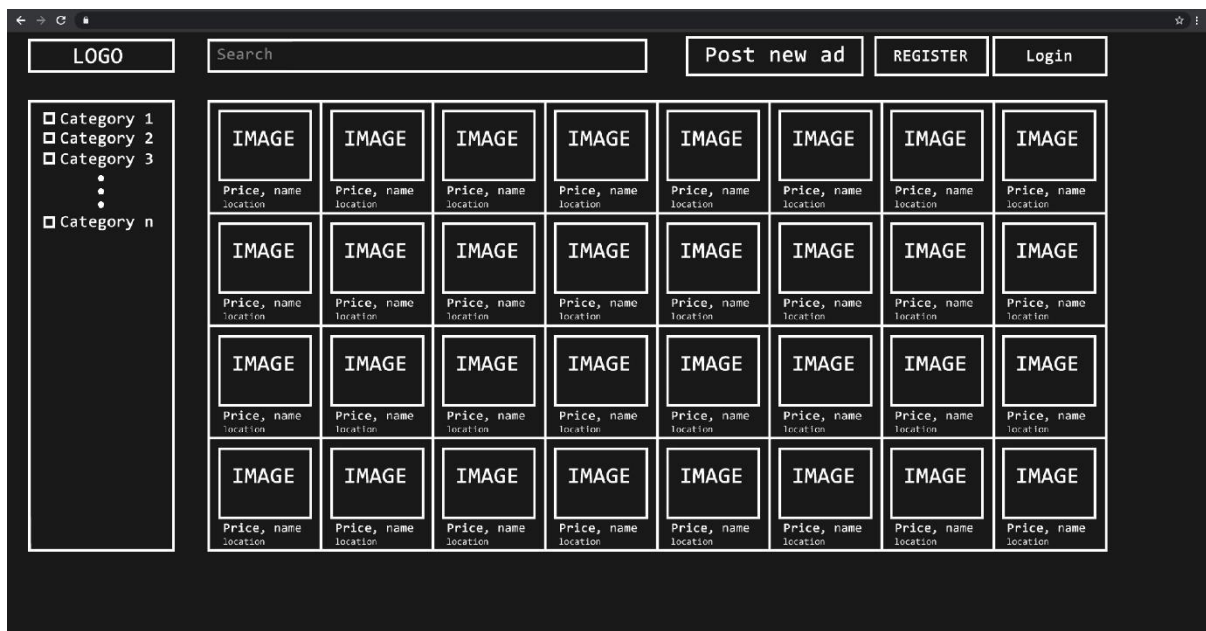
5.2.1. Unregistered user – main page

5.2.2. Registered user – main page

5.2.3. Unregistered user – filtered view

5.2.4. Registered user – filtered view

5.2.5. Unregistered user – ad view

LOGO | Search | Post new ad | Watch My account | log out

Product name Watch
Price

Images/videos

Description

Seller nickname
Seller rating
Contact

Localization

Questions from other users

Report this advertisement

5.2.6. Registered user – ad view

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5.3. Map and location

Posting an ad would require specifying approximate location of the seller, with default being a city, with optional field to select city district. If no district was selected, then the map field would highlight whole city, otherwise just the selected one.

Most easily this could be implemented using Google Maps API which are extensively documented and well supported, by simply embedding a map in details page of an ad, because as shown in pic. 1, and pic. 2 Google Maps already have such functionality, including highlighting city districts.

Potentially there could also be implemented other ways of displaying location, such as user choosing location in circle with set radius not smaller than set value, to not arouse concerns about privacy of people who live in rural areas, and their house might be the only one building in the selected zone, but not too big, to still be of avail in densely populated places, such as metropolises.

All of this data described above needs to be integrated into website searchbar, with some sort of indicator that calculates approximate distances to posters of ads. There also needs to be field which allows users to set maximum radius they want to search in, and also to set their location manually if they would wish so.

Calculating distance can be implemented by using Distance Matrix API, which is part of Google Maps API, and serves exactly this purpose. It calculates distance, and time it takes to travel that distance, using different methods such as walking, driving or bicycling. It can use traffic information aswell to output more accurate travel times.

5.3.1. City highlighting

5.3.2. District highlighting

List of all districts that need to be possible to select:

Częstochowa

- Błeszno
- Częstochówka-Parkitka
- Dźbów
- Gnaszyn-Kawodrza
- Grabówka
- Kiedrzyn
- Lisiniec
- Mirów
- Ostatni Grosz
- Podjasnogórska
- Północ
- Raków
- Stare Miasto
- Stradom
- Śródmieście
- Trzech Wieszczów
- Tysiąclecie
- Wrzosowiak
- Wyczerpy-Aniołów
- Zawodzie-Dąbie

Warszawa

- Mokotów
- Praga-Południe
- Ursynów
- Wola
- Bielany
- Targówek
- Bemowo
- Śródmieście
- Białołęka
- Ochota
- Wawer
- Praga-Północ
- Ursus
- Żoliborz
- Włochy
- Wilanów
- Wesoła
- Rembertów

Gdynia

- Babie Doły
- Chwarzno-Wiczlino
- Chylonia
- Cisowa
- Działki Leśne
- Dąbrowa
- Grabówek
- Kamienna Góra
- Karwiny
- Leszczynki
- Mały Kack
- Obłuże
- Oksywie
- Orłowo
- Pogórze
- Pustki Cisowskie-Demptowo
- Redłowo
- Śródmieście
- Wielki Kack
- Witomino-Radiostacja
- Witomino-Leśniczówka
- Wzgórze św. Maksymiliana

Władysławowo

- Cetniewo
- Hallerowo
- Śródmieście
- Szotland
- Żwirowa

Gdańsk

- Aniołki
- Brętowo
- Brzeźno
- Chełm
- Jasień
- Kokoszki
- Krakowiec- Górki Zachodnie
- Letnica
- Matarnia
- Młyniska
- Nowy Port
- Oliwa
- Olszynka
- Orunia Górna-Gdańsk Południe
- Orunia-Św. Wojciech-Lipce
- Osowa
- Piecki- Migowo
- Przeróbka
- Przymorze Małe
- Przymorze Wielkie
- Rudniki
- Siedlce
- Stogi
- Strzyża
- Suchanino
- Śródmieście
- Ujeścisko-Łostowice
- VII Dwór
- Wrzeszcz Dolny
- Wrzeszcz Górny
- Wyspa Sobieszewska
- Wzgórze Mickiewicza
- Zaspa Młyniec
- Zaspa Rozstaje
- Żabianka-Wejhera-Jelit.Tysiąc.

Kraków

1. **Stare Miasto**
   - Kazimierz
   - Kleparz
   - Nowe Miasto
   - Nowy Świat
   - Piasek
   - Stare Miasto
   - Stradom
   - Warszawskie
   - Wawel
2. **Grzegórzki**
   - Dąbie
   - Grzegórzki
   - Kazimierz
   - Olsza
   - Osiedle Oficerskie
   - Wesoła
3. **Prądnik Czerwony**
   - Olsza
   - Olsza II
   - Prądnik Czerwony
   - Rakowice
   - Śliczna
   - Ugorek
   - Warszawskie
4. **Prądnik Biały**
   - Azory
   - Bronowice Wielkie
   - Górka Narodowa
   - Górka Narodowa Wschód
   - Górka Narodowa Zachód
   - Osiedle Gotyk
   - Osiedle Krowodrza Górka
   - Osiedle Witkowice Nowe
   - Prądnik Biały
   - Tonie
   - Witkowice
   - Żabiniec
5. **Krowodrza**
   - Cichy Kącik
   - Czarna Wieś
   - Krowodrza
   - Łobzów
   - Miasteczko Studenckie AGH
   - Nowa Wieś

14. **Bronowice**
    - Bronowice Małe
    - Bronowice Małe Wschód
    - Mydlniki
    - Bronowice Nowe
    - Osiedle Widok Zarzecze
15. **Zwierzyniec**
    - Bielany
    - Chełm
    - Olszanica
    - Półwsie Zwierzynieckie
    - Przegorzały
    - Wola Justowska
    - Zwierzyniec
    - Salwator
    - Zakamycze
16. **Dębniki**
    - Bodzów
    - Dębniki
    - Kobierzyn
    - Koło Tynieckie
    - Kostrze
    - Ludwinów
    - Podgórki Tynieckie
    - Pychowice
    - Sidzina
    - Skotniki
    - Tyniec
    - Kapelanka
    - Mochnaniec
    - Osiedle Europejskie
    - Osiedle Interbud
    - Osiedle Kolejowe
    - Osiedle Panorama
    - Osiedle Podwawelskie
    - Osiedle Proins
    - Osiedle Ruczaj-Zaborze
    - Ruczaj
17. **Łagiewniki-Borek Fałęcki**
    - Borek Fałęcki
    - Łagiewniki
    - Osiedle Cegielniana
    - Osiedle Zaułek Jugowicki

10. **Swoszowice**
    - Bania
    - Barycz
    - Jugowice
    - Kliny Borkowskie
    - Kliny Zacisze
    - Kosocice
    - Lusina
    - Łysa Góra
    - Opatkowice
    - Rajsko
    - Siarczana Góra
    - Soboniowice
    - Wróblowice
    - Zbydniowice
11. **Podgórze Duchackie**
    - Kurdwanów
    - Kurdwanów Nowy
    - Osiedle Piaski Nowe
    - Osiedle Podlesie
    - Piaski Wielkie
    - Wola Duchacka
    - Wola Duchacka Wschód
    - Wola Duchacka Zachód
12. **Bieżanów-Prokocim**
    - Bieżanów
    - Bieżanów Kolonia
    - Kaim
    - Łazy
    - Osiedle Nowy Bieżanów
    - Osiedle Kolejowe
    - Osiedle Medyków
    - Osiedle Na Kozłówce
    - Osiedle Nad Potokiem
    - Osiedle Nowy Prokocim
    - Osiedle Parkowe
    - Osiedle Złocień
    - Prokocim
    - Rżąka
13. **Podgórze**
    - Bielany
    - Łutnia
    - Mateczny
    - Płaszów
    - Podgórze
    - Przewóz
    - Rybitwy
    - Zabłocie

6. **Czyżyny**
   - Czyżyny
   - Łęg
   - Osiedle 2 Pułku Lotniczego
   - Osiedle Akademickie
   - Osiedle Dywizjonu 303
7. **Mistrzejowice**
   - Batowice
   - Dziekanowice
   - Mistrzejowice
   - Osiedle Bohaterów Września
   - Osiedle Kombatantów
   - Osiedle Mistrzejowice Nowe
   - Osiedle Oświecenia
   - Osiedle Piastów
   - Osiedle Srebrnych Orłów
   - Osiedle Tysiąclecia
   - Osiedle Złotego Wieku
8. **Bieńczyce**
   - Bieńczyce
   - Osiedle Albertyńskie
   - Osiedle Jagiellońskie
   - Osiedle Kalinowe
   - Osiedle Kazimierzowskie
   - Osiedle Kościuszkowskie
   - Osiedle Na Lotnisku
   - Osiedle Niepodległości
   - Osiedle Przy Arce
   - Osiedle Strusia
   - Osiedle Wysokie
   - Osiedle Złotej Jesieni
9. **Wzgórza Krzesławickie**
   - Dłubnia
   - Grębałów
   - Kantorowice
   - Krzesławice
   - Lubocza
   - Łuczanowice
   - Osiedle Na Stoku
   - Osiedle Na Wzgórzach
   - Wadów
   - Węgrzynowice
   - Zesławice

18. **Nowa Huta**
   - Błonie
   - Branice
   - Chałupki
   - Chałupki Górne
   - Cło
   - Górka Kościelnicka
   - Holendry
   - Kopaniny
   - Kościelniki
   - Kujawy
   - Mogiła
   - Nowa Huta
   - Nowa Wieś
   - Osiedle Centrum A
   - Osiedle Centrum B
   - Osiedle Centrum C
   - Osiedle Centrum D
   - Osiedle Centrum E
   - Osiedle Górali
   - Osiedle Handlowe
   - Osiedle Hutnicze
   - Osiedle Kolorowe
   - Osiedle Krakowiaków
   - Osiedle Lesisko
   - Osiedle Młodości
   - Osiedle Na Skarpie
   - Osiedle Ogrodowe
   - Osiedle Słoneczne
   - Osiedle Sportowe
   - Osiedle Spółdzielcze
   - Osiedle Stalowe
   - Osiedle Szklane Domy
   - Osiedle Szkolne
   - Osiedle Teatralne
   - Osiedle Urocze
   - Osiedle Wandy
   - Osiedle Willowe
   - Osiedle Zgody
   - Osiedle Zielone
   - Piekiełko
   - Pleszów
   - Przylasek Rusiecki
   - Przylasek Wyciąski
   - Ruszcza
   - Stryjów
   - Wola Rusiecka
   - Wolica
   - Wróżenice
   - Wyciąże

Lublin

   - Abramowice
   - Bronowice
   - Czechów Południowy
   - Czechów Północny
   - Czuby Południowe
   - Czuby Północne
   - Dziesiąta
   - Felin
   - Głusk
   - Hajdów-Zadębie
   - Kalinowszczyzna
   - Konstantynów
   - Kośminek
   - Ponikwoda
   - Rury
   - Sławin
   - Sławinek
   - Stare Miasto
   - Szerokie
   - Śródmieście
   - Tatary
   - Węglin Południowy
   - Węglin Północny
   - Wieniawa
   - Wrotków
   - Za Cukrownią
   - Zemborzyce

Opole

   - Wróblin
   - Grotowice
   - Szczepanowice
   - Malina
   - Kolonia Gosławicka
   - Wójtowa Wieś
   - Bierkowice
   - Zakrzów
   - Nowa Wieś Królewska
   - Gosławice
   - Śródmieście
   - Półwieś
   - Groszowice
   - Grudzice

5.4. „Favourites" tab

- In the upper section there is a button, the Favorites icon, visible to not logged in users, which, when clicked, takes you to the login / registration page.
- For a logged in user, it takes us to the page containing the list of favorite ads.
- The appearance is the same as with a normal advertisement search. If there are no advertisements, it displays the inscription "the list is empty"
- A button next to each advertisement with the option of removing this advertisement from favorites / watched
- A button that allows you to remove all ads from "Favorites" with one click
- After clicking on the advertisement, it takes us to that advertisement just like in the case of standard advertisement search.
- The order in which ads are displayed depends on the order in which the ads were added to the "Favorites"
- Each user has his own list of favorites.

5.5. Advertisement view counter

- It should be at the bottom of the page
- Count views of your ad
- Be resistant to refreshing the page (e.g. using cookies or a database)
- Can be used to measure ad popularity (entries / day)

5.6. Search bar

In general:
- The user will be able to search for ads by categories.
- The user will be able to use additional filters that will allow him for a more relevant search result.
- It will also be possible to search for sellers.

Layout / Structure:
- After entering the website, the user will be able to search for the phrase he is looking for, or browse the content by categories.
- After entering the phrase, user will be able to filter the search data.
- The search box will be located at the top of the page.
- Next to the field for entering the phrase, there will be a button with which the user can search the database with the given criteria.
- When entering, suggested suggestions in given categories will appear.
- On the left side user will be able to select filters.

Sample filters:
- Price (from ... to ...)
- Colour
- Condition (used, new)
- Category (automotive, work)

Database:
The most frequently selected items will appear in the proposed (for logged in).

Initial approximate appearance:

Czego szukasz?	Szukaj

Sample search attempt:

Samochód	Szukaj

Samochód > Części samochodowe

Samochód > Motoryzacja

Samochód > Zabawki

samochód

Samochód osobowy

Samochód elektryczny

5.7. Posting advertisements

5.7.1. Add announcement button.
 - Works only for logged in users, otherwise for login / registration window.

5.7.2. Layout
 - Drop-down list with categories.
 - Drop-down lists with under categories.
 - Below is the field with the title of the advertisement. Title from 4 to e.g. 80 characters.
 - Price box next to it. Up to 8 digits, only numbers
 - Field with description. Description at least 50 characters. Max 5k characters

5.7.3. Photos:
After clicking the button, we choose a photo from the computer. Max 5 photos. each max 10 MB.
 - First photo as a thumbnail

5.7.4. Contact details:
- Field with Name / username by default filled with the adder's login.
- Field with telephone number. By default, the phone number from the profile of the user adding the advertisement is filled in.
- Field with email address. Default filled.
- Location field. Default filled.
- Optionally, a field with the option to disable comments / opinions under the announcement.
- All mandatory fields, except the telephone number.

5.7.5. Add advertisement button.
 - Filter checking the description and title for profanity.
 - Checking whether this user has added any advertisements for the last 2 minutes

### 5.7.6. Adding an advertisement to the database
- Ads database:

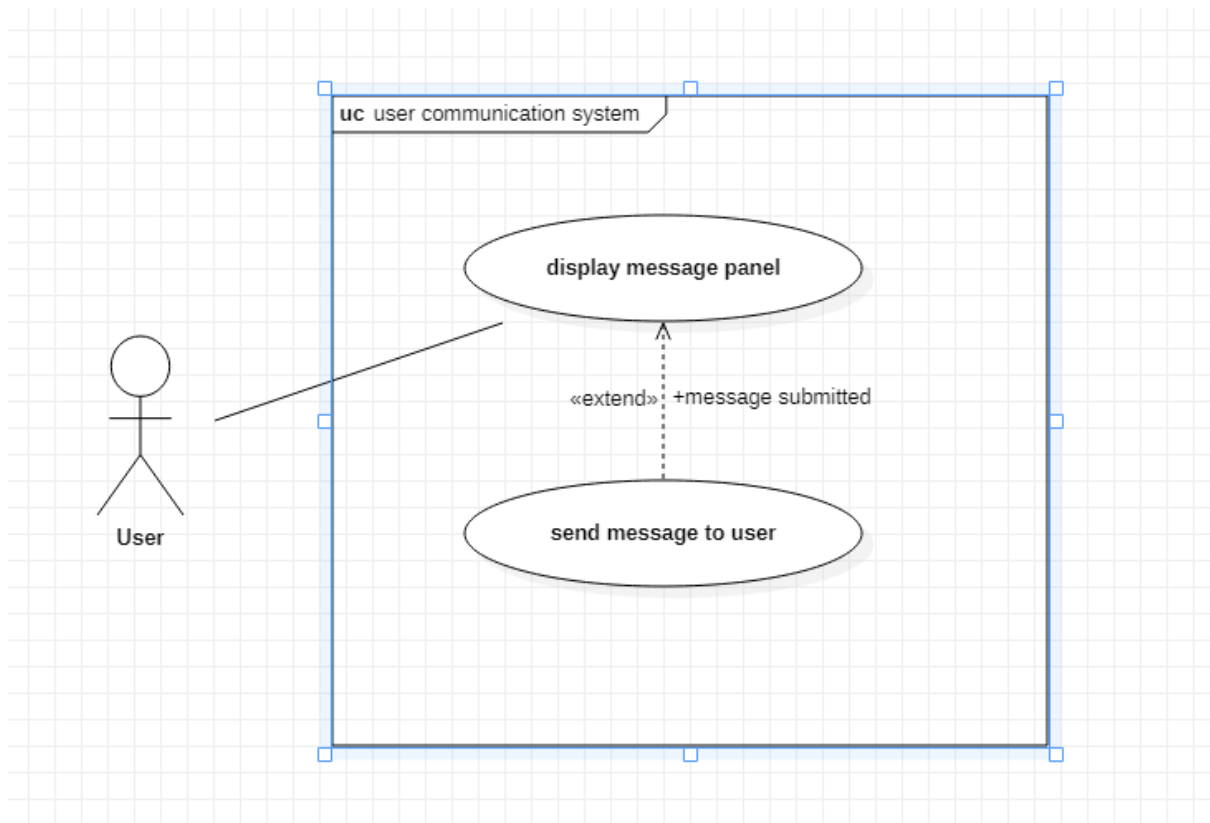| Id_ad	Id_owner	Category	Subcategory	Title	Description	Photo[1..5]

- Users database:

Id_user	Email	Password	Username	Phone	Location

5.8. Images viewing
- The user will be able to view the photos without reloading the page.
- Possibility to enlarge the photo.
- Photos will be scrolled through a loop.
- Scrolling will be available using the arrows.

No Image
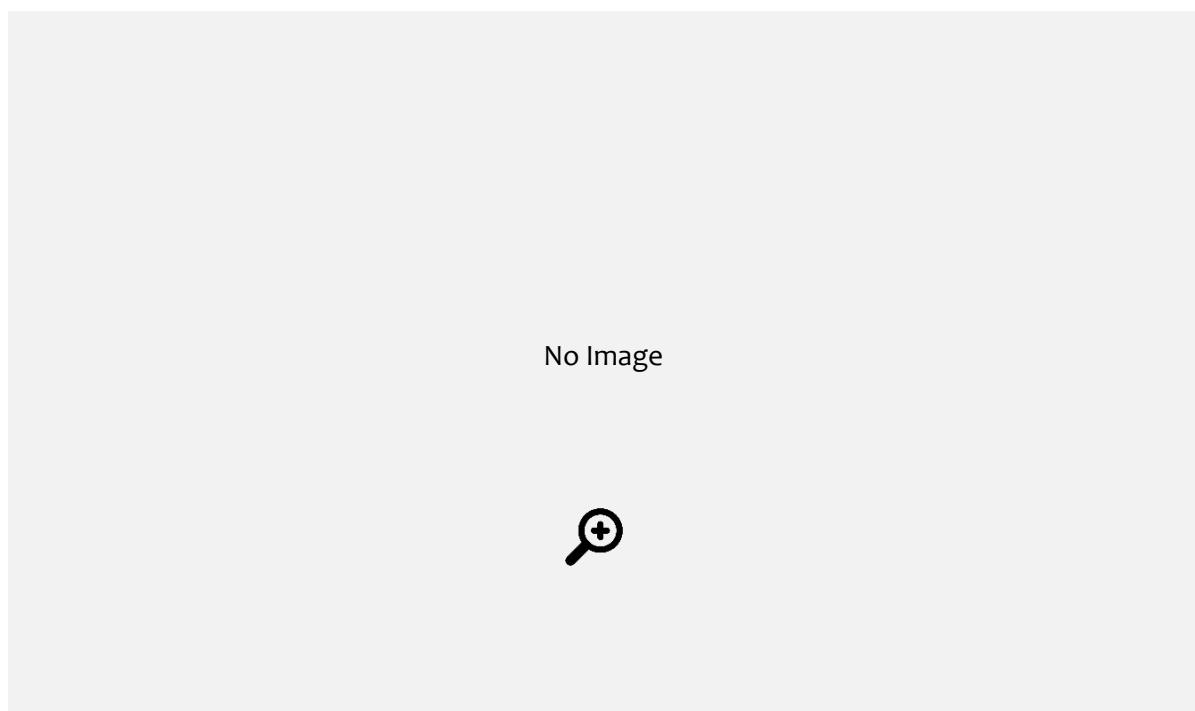
5.9. User messaging

5.9.1. User messaging – use case

5.10. User rating system

5.10.1. Summary description:

Each registered user, after prior notification of interest and contacting the advertiser, will be able to evaluate his experience with a given user once, by issuing a positive (+) or negative (-) opinion with an appropriate explanation.

5.10.2. Layout (user profile):

- "+/-" field: always displayed for each user profile. They symbolize positive and negative evaluations, represented as an integer, separate for the "+" and "-" symbols.
- → "Show all reviews" button: This is a link to the page containing a complete list of all user reviews.

5.10.3. Layout (all reviews page):

- "Reply" button: available for each unanswered review, only for the user to whom all reviews apply. They do not affect the opinions issued, they only give the opportunity to react to the person who received the opinions.
- "Report" button: only for the user who is subject to all reviews, it allows the admin to report a review that violates the regulations (eg it is spam) for review and possible removal.

Each review will contain the user's nickname (which is also a link to his profile), the date and time of the review, the ID of the ad, the content of the review (max 255 characters), green (for "+") or red (for "-"). The page will contain a summary of the number of opinions (the number of "+" and "-", and their percentage share), and the ability to filter by type (showing only positive, negative, or all), and the period of issue (from date to date).

Each review will contain the user's nickname (which is also
link to his profile), date and time of issuing the opinion, ID of the advertisement, content of the opinion (max 255 characters), green background (for "+") or red (for "-").

The page will contain a summary of the number of opinions ("+" and "-" numbers, and the percentage their share), and the ability to filter by type (showing only positive, negative, or all), and the period of issue (from date to date).

5.10.4. Operating:

- Contact via the button on the page with the announcement should be marked as contact for the X announcement. For each message exchange in the built-in system for a single X advertisement, there is an option to rate it issuing the advertisement through the contact person.
- After such an opinion has been given, it should not be possible to issue another assessment for the same ad ID.
- Issuing an opinion should send a notification to the advertiser that they have received feedback from the user.
- You should not be able to form opinion for yourself (as well as contacting yourself)
- A filter that does not allow profanity in the opinions (such feedback will not be displayed).
- The opinion counting system should count the current number of opinions with each refresh pages so that reported and deleted posts are not counted.
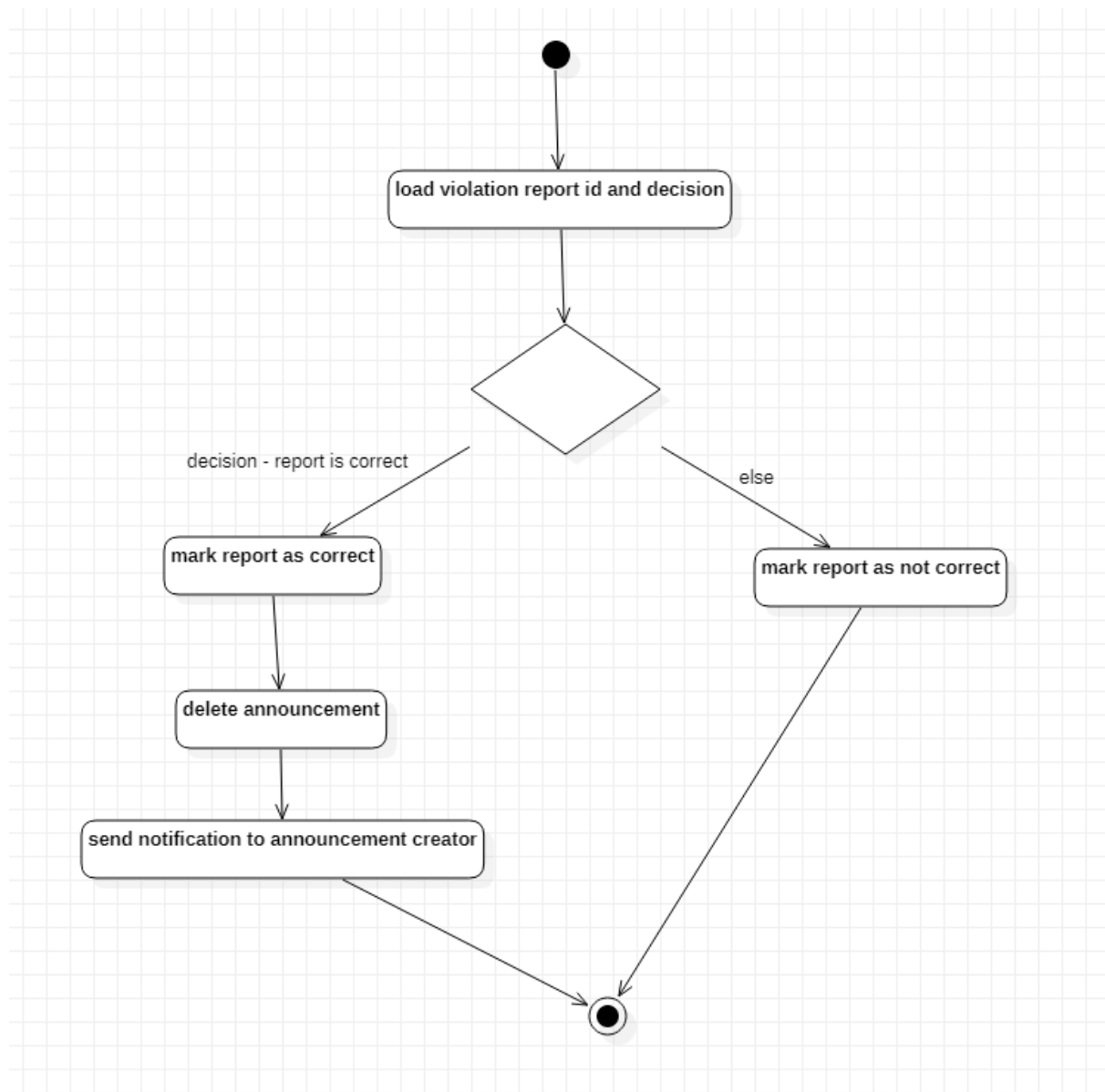
5.11. User reporting system
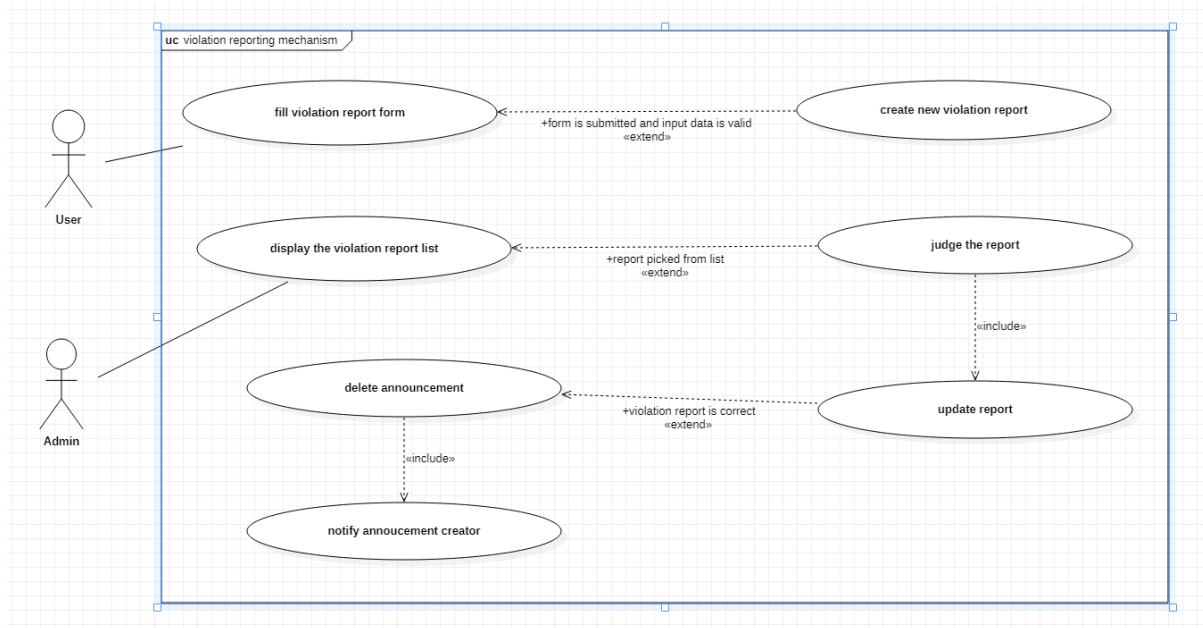
5.11.1. User reporting – use case
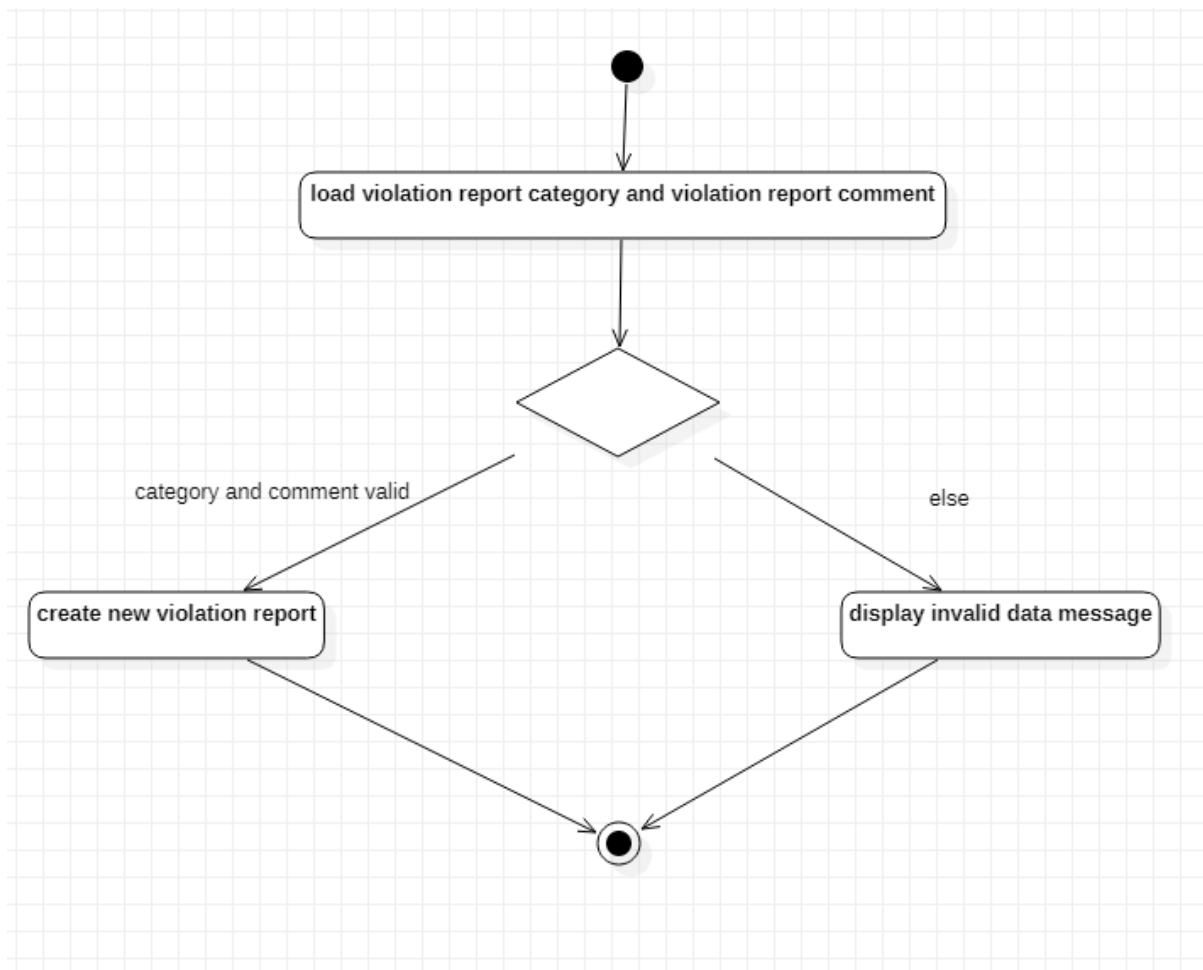
5.11.2. User reporting – Violation Raport Creation

5.11.3. User reporting – Violation Raport Judging