# iCare

Software Design Document

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# 1. INTRODUCTION

## 1.1. Purpose

This software design document reviews the architecture on which the system is built, also describes the system design, show general description of functionality and communication with the database.

## 1.2. Scope

The program provides an accessible and convenient interface for its users, including parents who need help with their children and are looking for a babysitter. Help can be such as keeping them, doing tasks with them, cleaning, doing homework with them and more.

The additional goal of the program is to provide and promote the babysitter business and allow those people to run their own personal page consisting of personal recommendations from parents and various sources, in addition the program will allow for tracking of their income.

## 1.3. Overview

The document details the main processes of the system, and shows how the various customers achieve their needs by the system.
In addition, we will provide a general overview of the system structure, system design, describe the connection between the various components and the ways of connecting to the database, and in addition we will detail the technologies needed to build the system.

# 2. SYSTEM OVERVIEW

iCare is web-application that helps parents and families find the right babysitter or nanny, and also helps the babysitters and nannies find a job or part-time job

iCare web-application will have the following features:

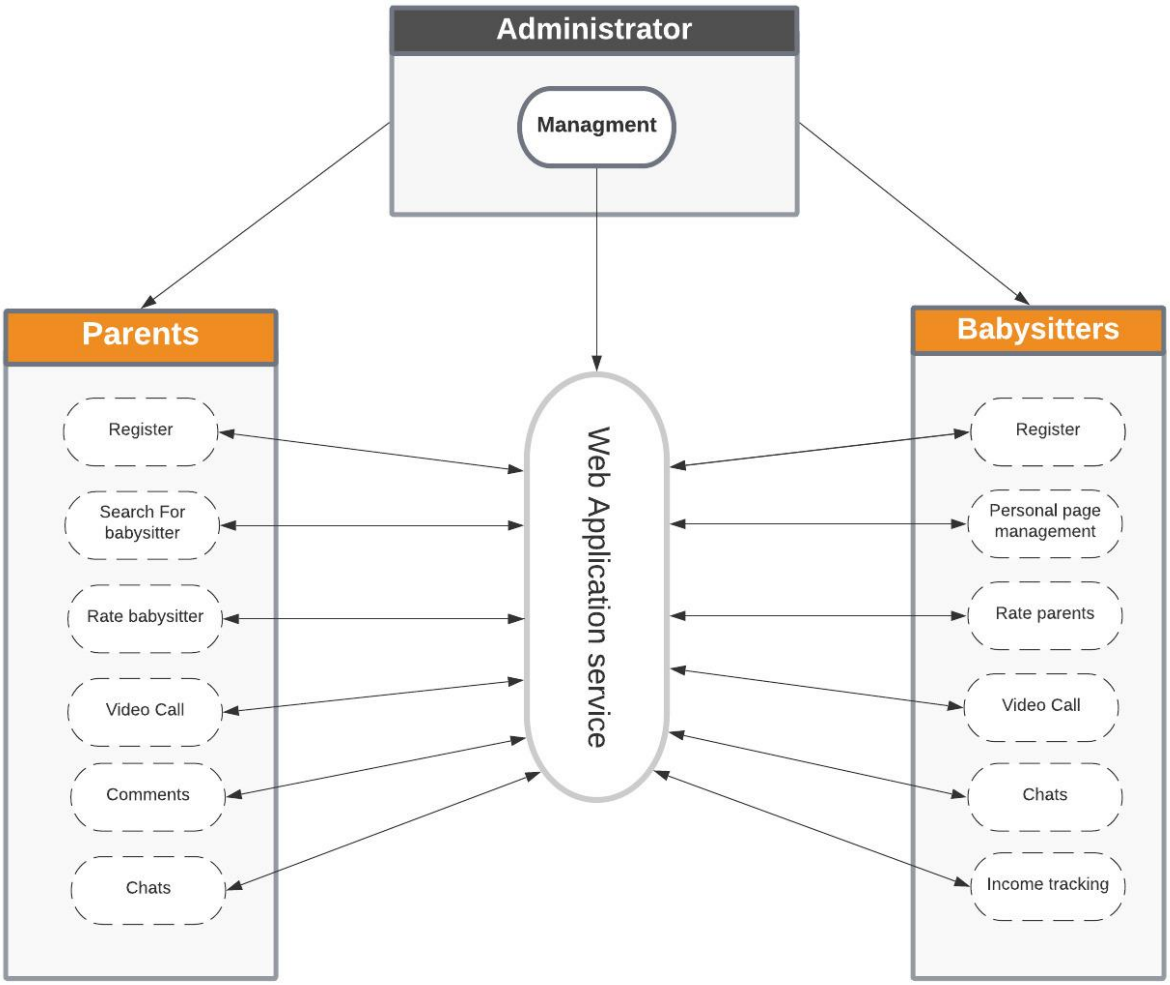
- Social sign-in
- Chat
- Video call
- Push notifications
- Geolocation
- Booking
- Search
- Category filters
- Rating
- Reviews and recommendations

# 3. SYSTEM ARCHITECTURE

The system is based as a website which, among other things, will
provide a registration system specific to the different types of customers : families and babysitters.
In addition,the website will provide for the parents the most optimal babysitter for them based on the location, price and features that are important to them.
The system will provide babysitters with the ability to maintain a personal page that will contain the recommendations from the parents they worked with, and in addition they will be able to track income.

In addition, in order to build trust between the different types of customers, the system will make it possible to create a connection between them through the ZOOM which will suit their schedule.

## 3.1. Architectural Design




## 3.2. Design Rationale

The rationale behind the diagram in 3.1 is to simplify the interaction between any type of user and the platform. To do that we allow minimal options for each type of user. This method provides the safest approach for user management.

# 4. DATA DESIGN

## 4.1. Data Description

The data of iCare web App will be stored in a relational database and communicate with SQL for managing the data. Database will be used for storing information about parents, families, babysitters, nannies and will be visible to the public through the platform in the personal page .

## 4.2. Data Dictionary

Families and Parents:

- Full name (string)
- Location(object)
- Rating(float)

Nannies and Babysitters:

- Full name(string)
- Education(string)
- age(int)
- photos(object)
- experience(double)
- Rating(float)

Family Post:

- Title(string)
- Information(string)
- Link to family (link)
- Comments(object)

Babysitters Post:

- Title(string)
- Information(string)
- Link to babysitter(link)
- Comments(object)

# 5. COMPONENT DESIGN

Publish a post – Analyzes the parameters and accordingly inserts them to the database. The post is actually an object ‘Post’ which contains all of the related fields we represented in our PDD.

View a post– Present a list view of posts sorted by the user desired parameters, any actions (like, comment, reply) needed to be saved in the database.

Search – Based on location, prices and schedule, use priority queues and advanced queries from the database to present the best and related results to the user.

Registrations and login – A user authentication should be arranged efficiently and well in the database, and also test inputs needed to work well.

View Profile – Show the currently logged in users' profile and let him edit its data by getting the related data from the database and setting new data to the database.
The profile will be represented by using the ‘User’ object we get from the database.

# 6. HUMAN INTERFACE DESIGN

## 6.1. Overview of User Interface

### I. Parents and Families

Parents can 'Post' a job for detailing child care, school help or even tutoring needs. Sitters can apply to this 'Post' and the Parents can decide which one of the applicants they want by looking at the Applicants List View. After picking the Sitter, it will display the Sitter Profile View which shows information about the Sitter like education, experience, and contact info. The Parents can Book a meeting or an interview with the Sitter. They can also Chat with the Sitter and then, if the Parents feel like it's a match, then they accept the offer.
Another way for matching from the Parents side is to find Sitters by looking at the Homepage where they can find many Sitter Posts and then they can do the same contact process like in the previous method.

### II. Babysitters and Nannies

Sitters and Nannies can 'Post' a job for detailing child care, school help or even tutoring needs. Parents can Comment on the 'Post' and the Sitters can decide which one of the Parents they want by looking at the Comments View. After picking the Patrent, it will display the Parent Profile View which shows information about the Parent like number of children, prices, and contact info.
Sitter can Chat with the Parent and then, if the Parents feel like it's a match, then they accept the offer.
Another way for matching from the Sitters side is to find Jobs by looking at the Homepage where they can find many Parents Posts and then they can do the same contact process like in the previous method.

### III. Admins

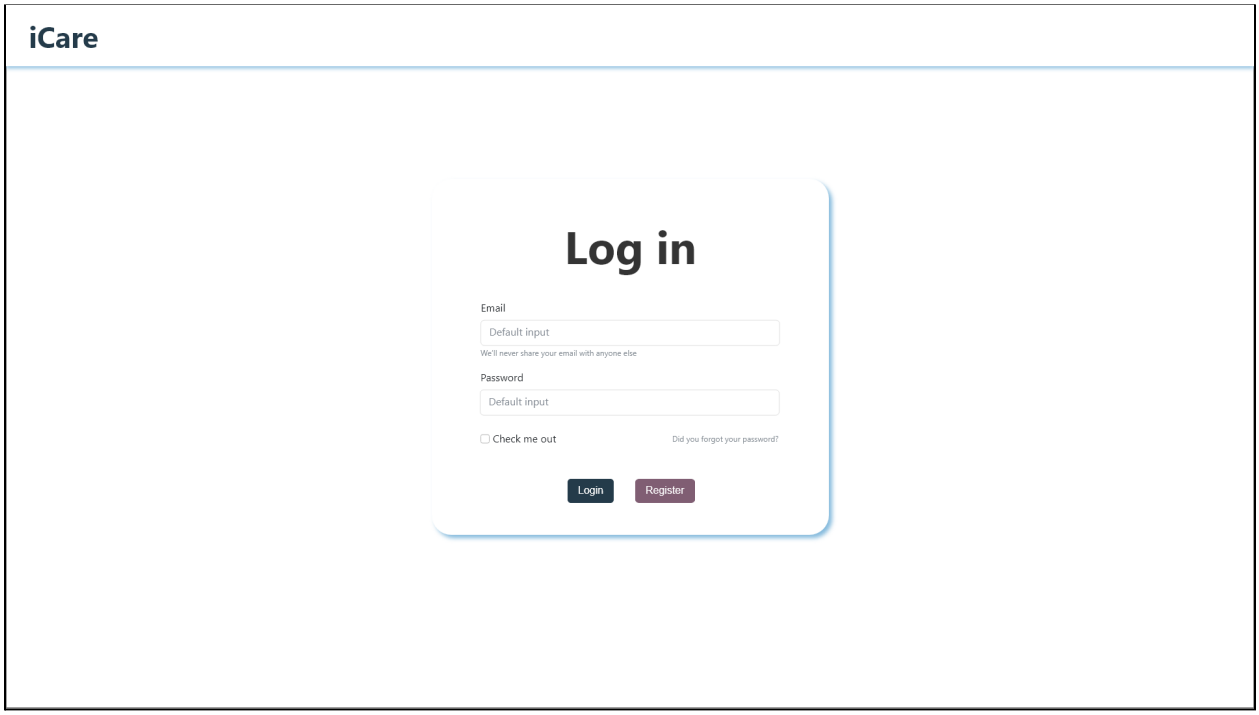
Admins can control the system in the Administration Panel View.
They can block unwanted Users in the Users View and take care of reports in the Reports View.

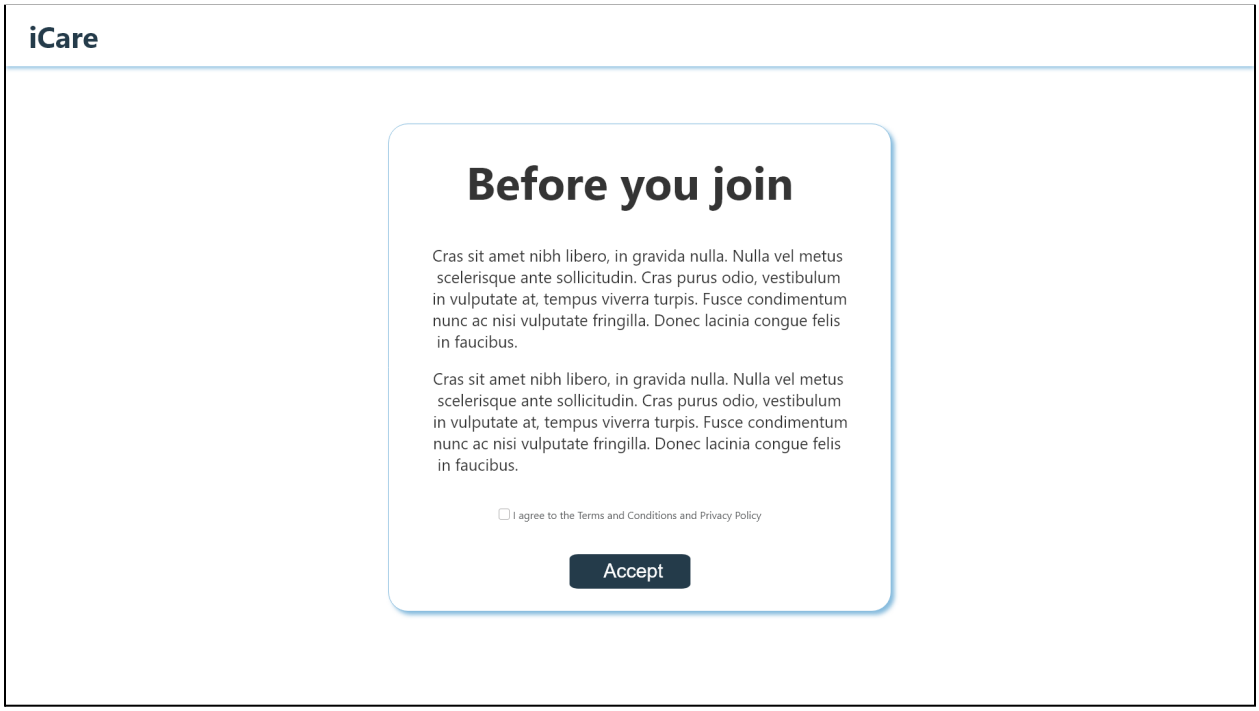
### IV. Unsigned users

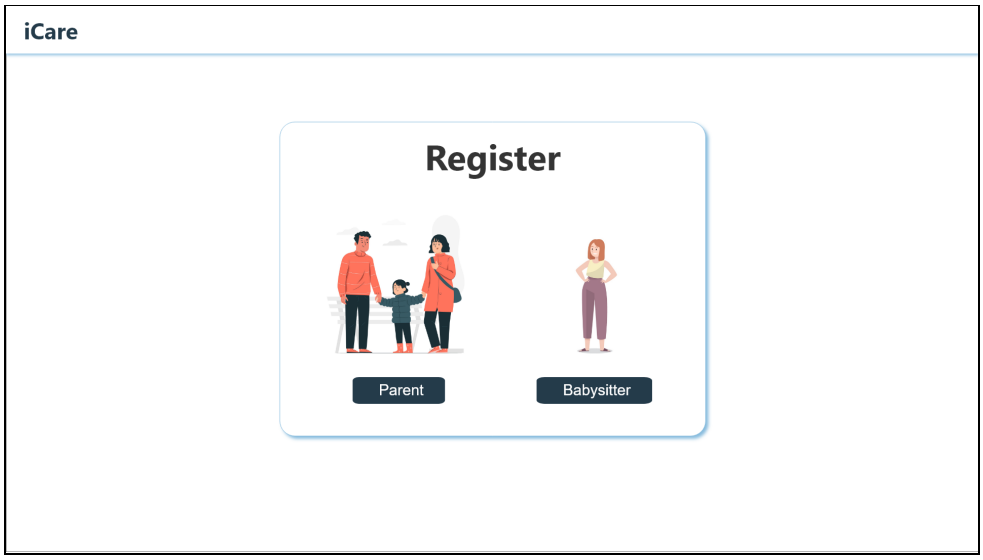
The first time the user sees the system.
If the User is unsigned, then it will display the Registration View which

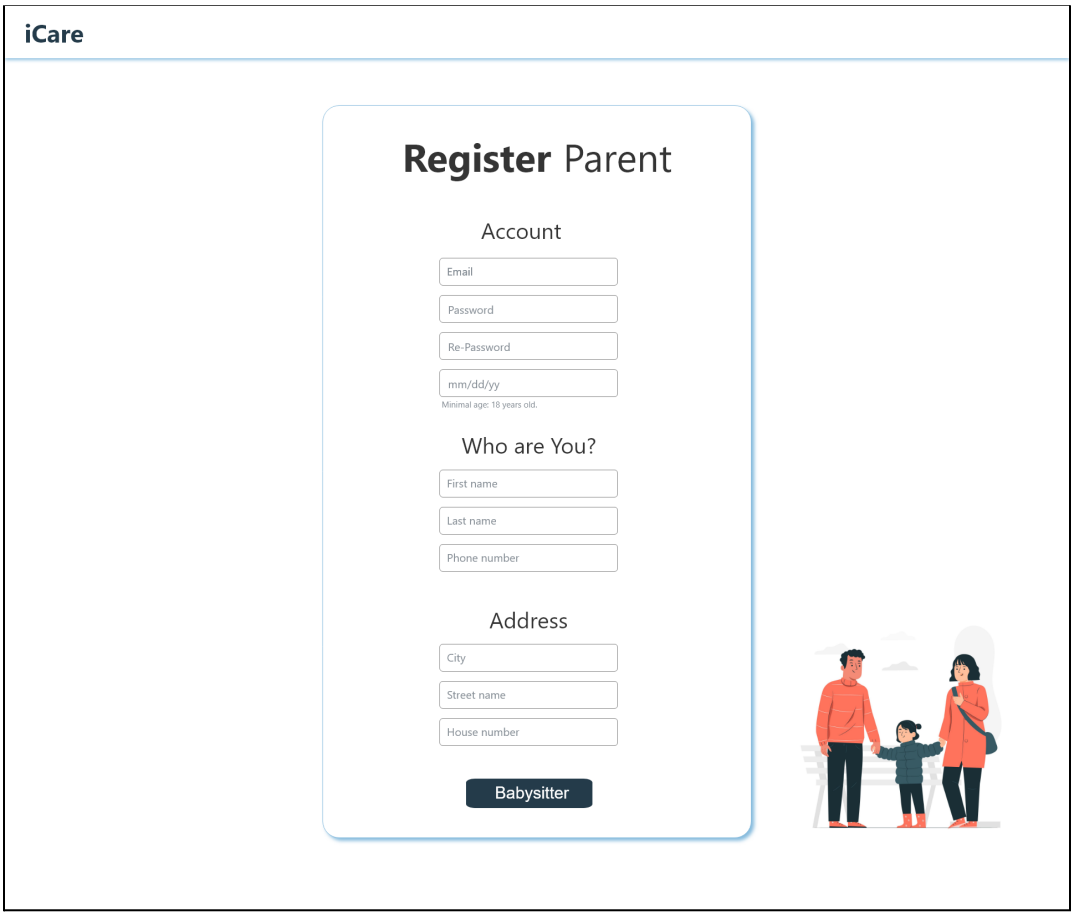
will direct the User to the right path - being a Parent User of a Sitter User. It also can take the User to the Login View.

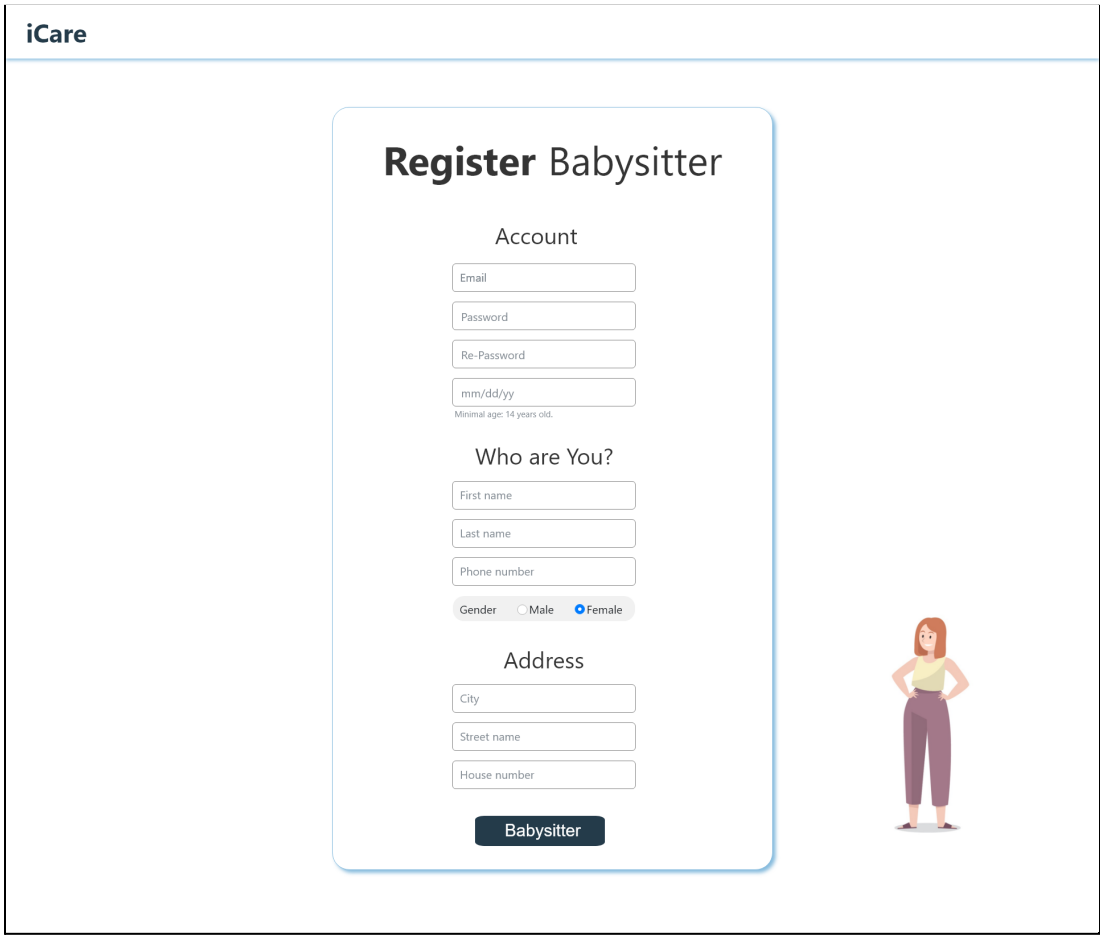
## 6.2. Screen Images (Sketches)

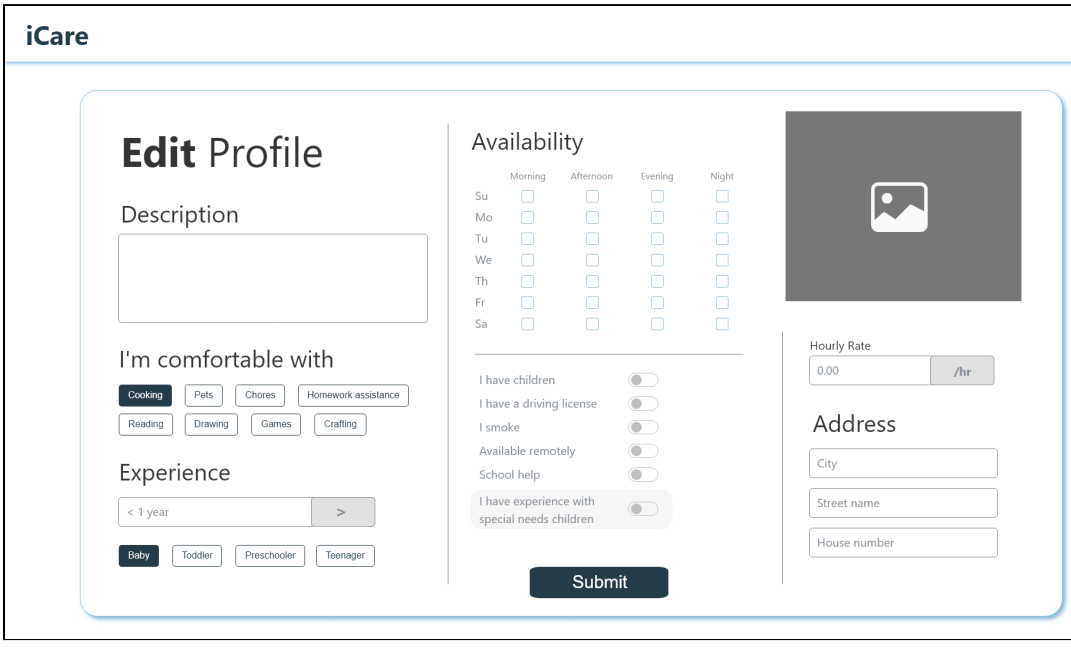


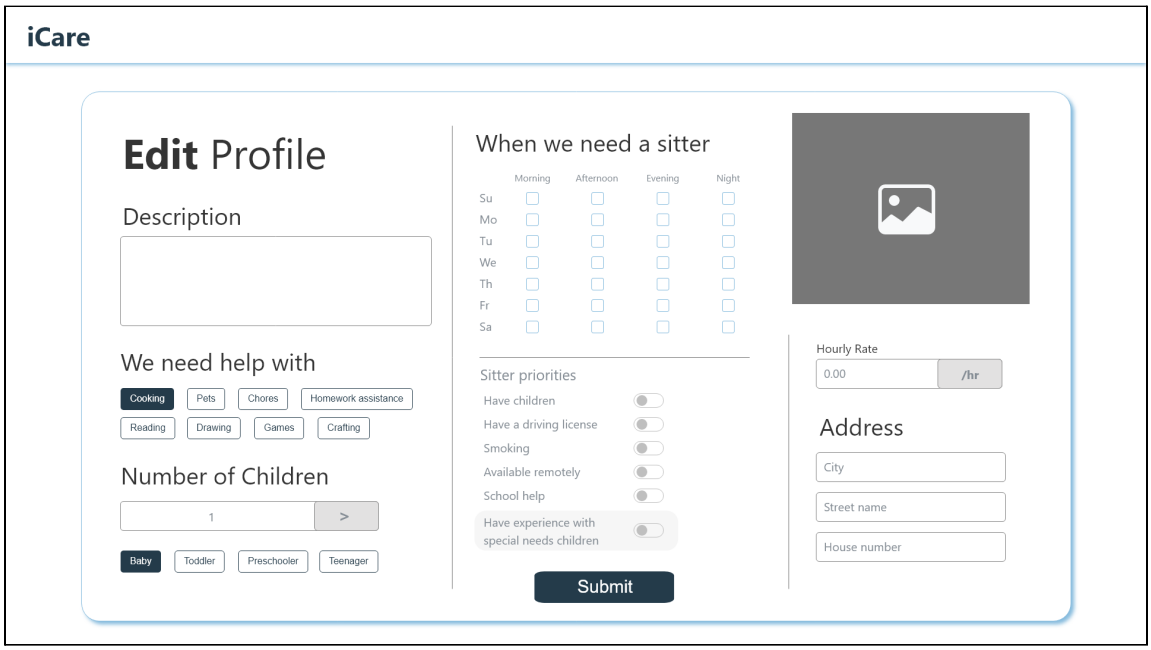



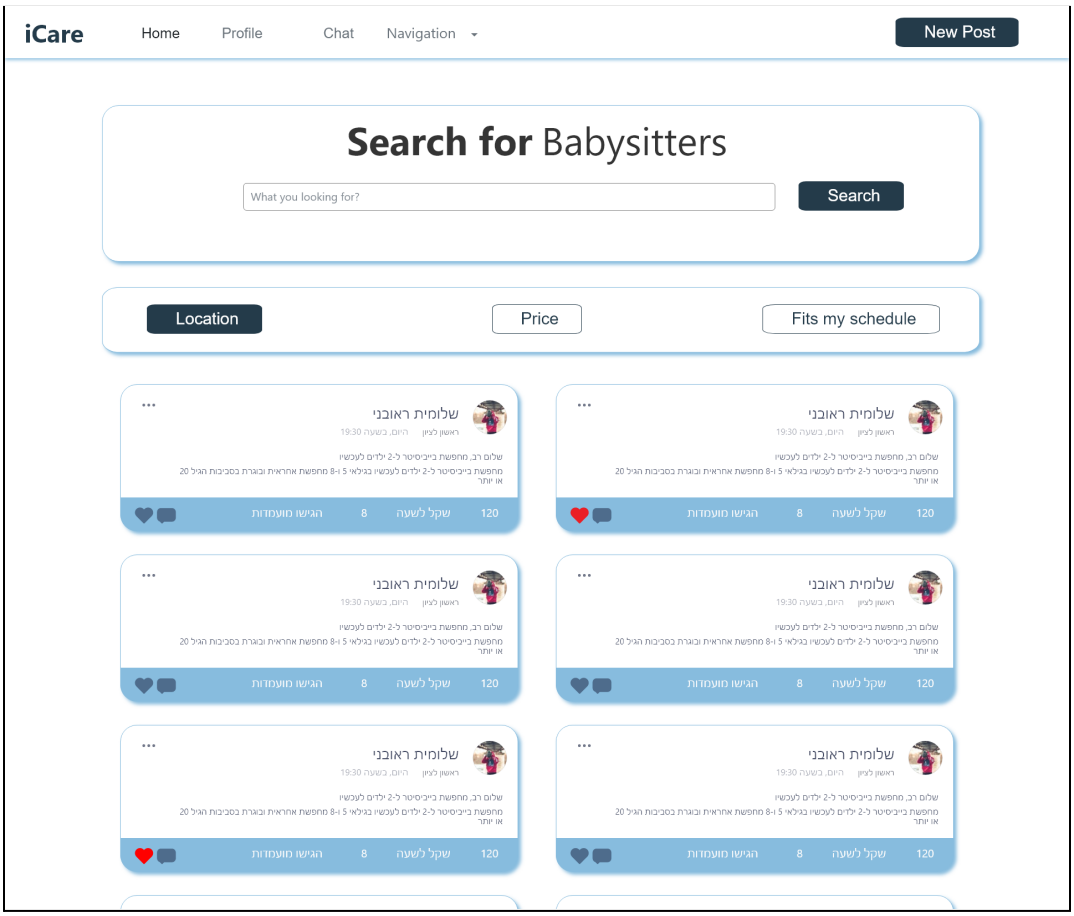

iCare
Register
Parent
Babysitter

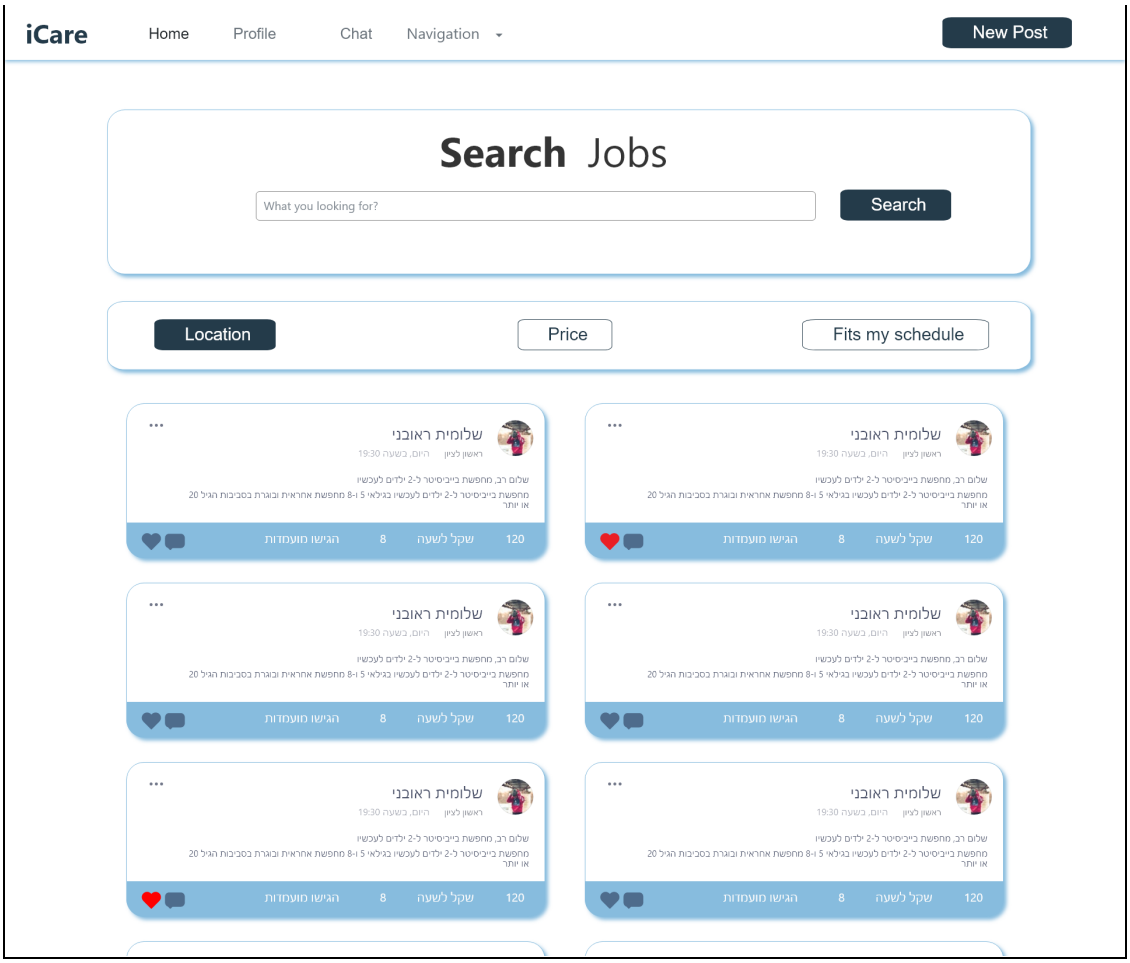

iCare
Register Parent
Account
Email
Password
Re-Password
mm/dd/yy
Minimal age: 18 years old.
Who are You?
First name
Last name
Phone number
Address
City
Street name
House number
Babysitter


iCare
Register Babysitter
Account
Email
Password
Re-Password
mm/dd/yy
Minimal age: 14 years old.
Who are You?
First name
Last name
Phone number
Gender
Male
Female
Address
City
Street name
House number
Babysitter


iCare
Edit Profile
Description
I'm comfortable with
Cooking
Pets
Chores
Homework assistance
Reading
Drawing
Games
Crafting
Experience
< 1 year
>
Baby
Toddler
Preschooler
Teenager
Availability
Morning
Afternoon
Evening
Night
Su
Mo
Tu
We
Th
Fr
Sa
I have children
I have a driving license
I smoke
Available remotely
School help
I have experience with special needs children
Submit
Hourly Rate
0.00
/hr
Address
City
Street name
House number


iCare
Edit Profile
Description
We need help with
Cooking
Pets
Chores
Homework assistance
Reading
Drawing
Games
Crafting
Number of Children
1
>
Baby
Toddler
Preschooler
Teenager
When we need a sitter
Morning
Afternoon
Evening
Night
Su
Mo
Tu
We
Th
Fr
Sa
Sitter priorities
Have children
Have a driving license
Smoking
Available remotely
School help
Have experience with special needs children
Submit
Hourly Rate
0.00
/hr
Address
City
Street name
House number


iCare
Home
Profile
Chat
Navigation
New Post
Search for Babysitters
What you looking for?
Search
Location
Price
Fits my schedule




## 6.3. Screen Objects and Actions

Registration: Creating a new user profile. The user picks a user type and then writes its details in the text boxes and press register to submit the data.

Login: The user writes his email and password in the text boxes and press login to move to the homepage.

Homepage: The user can search for other users and view posts by filter.
Can comment and like posts and also go to other user profiles by clicking at the profile picture of each post.

Edit Profile: User can edit its details and update experiences, price and availability during the week.