I-Need

Project Advisor

Neşe Şahin ÖZÇELİK

Team Members

Ö. Mert ŞAĞBAN

V. Oğulcan DELİCE

M. Enes KULUK

Mert YILMAZ

I-Need

What You Need

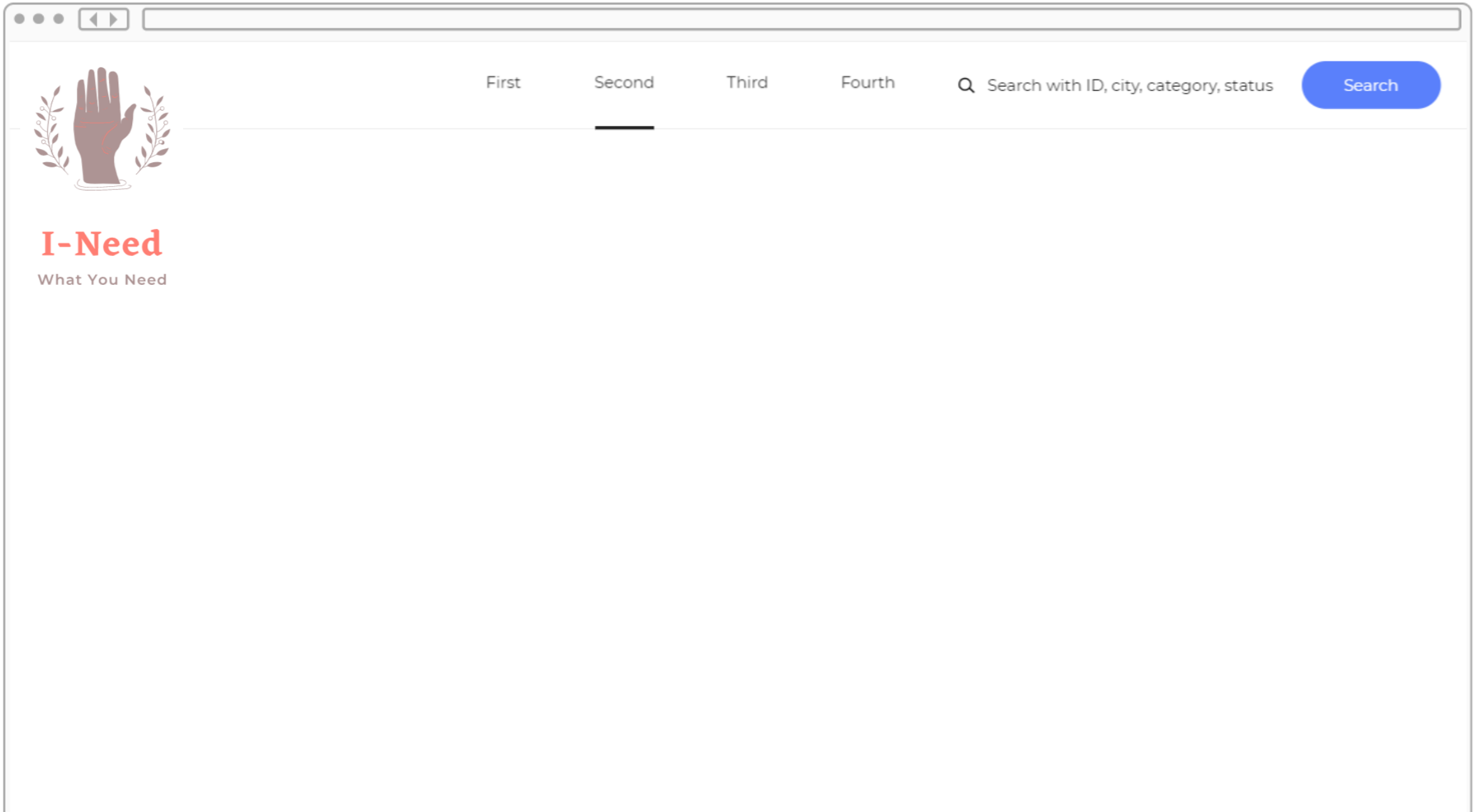
Software Product Identification

I-Need

What You Need

- Mobile application and web based platforms
- Cover up the deficiency in many branches.

What makes us different?



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What You Need

Results

City	Region	Category	Status	ID	
First	First	First	First	First	Offer Help
Second	Second	Second	Second	Second	Offer Help
Third	Third	Third	Third	Third	Offer Help
Fourth	Fourth	Fourth	Fourth	Fourth	Offer Help

FILTER

Choose City

Choose Region

Need Category

Status

APPLY FILTER →

I-Need

What You Need

NOTIFICATION 9m ago

Received a new offer

AWESOME!

YOU HAVE REVEIVED A NEW OFFER ! ! !

DETAILS CLOSE

MERT
ŞAĞBAN

Wants to help you!

Location : Ankara

Accept Offer

Refuse Offer

RATINGS ★★★

Mert

Hi Ahmet! I want to give books that you need. Can you share your location?

5 minutes ago

Ahmet

Hi Mert, Thank you! My students will be really happy :)

5 minutes ago

Location Requested

Mert send you location request. Would you like to share location?

Share

Dismiss

5 minutes ago

+ Write message Send

Software Product Requirements

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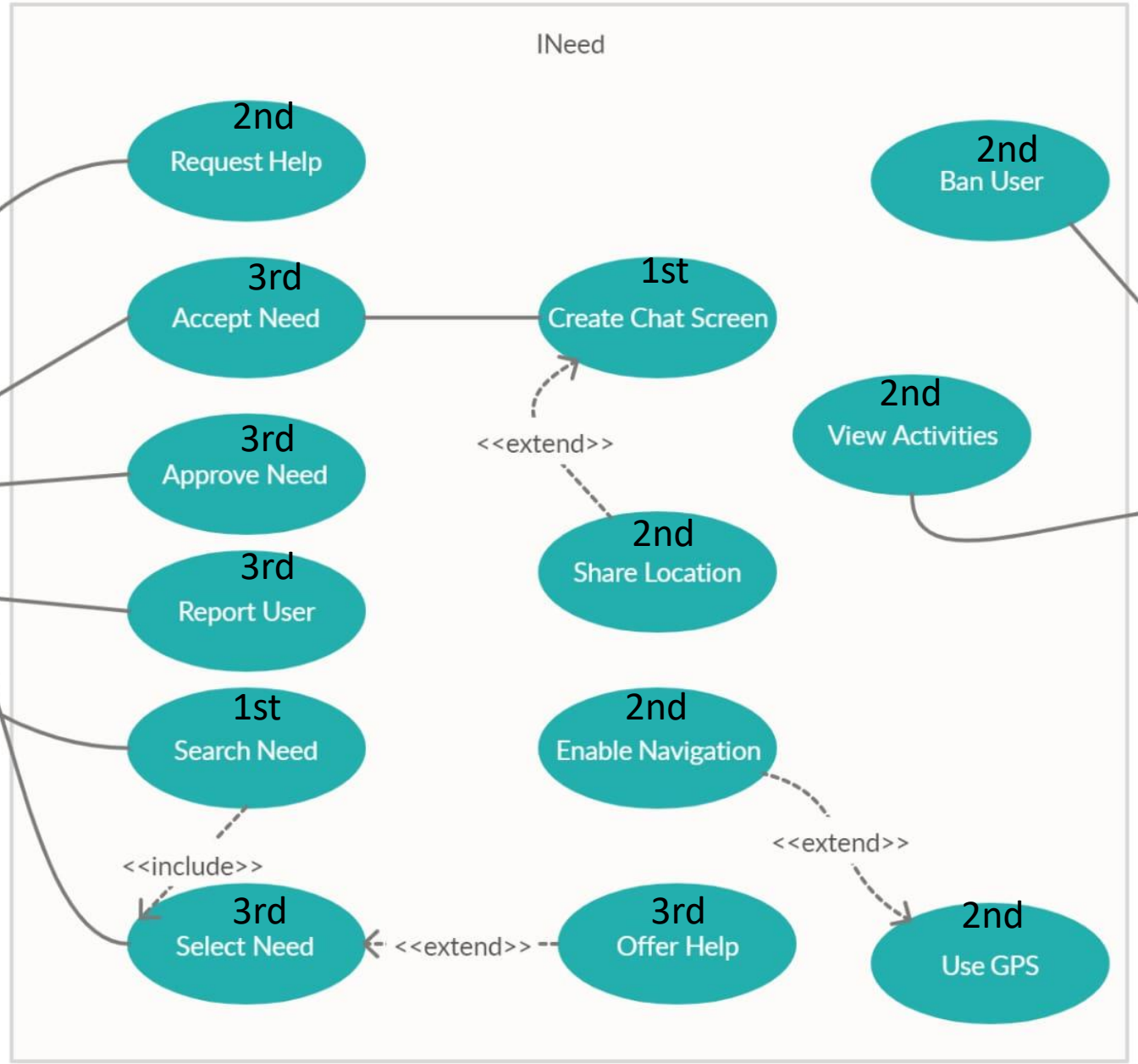
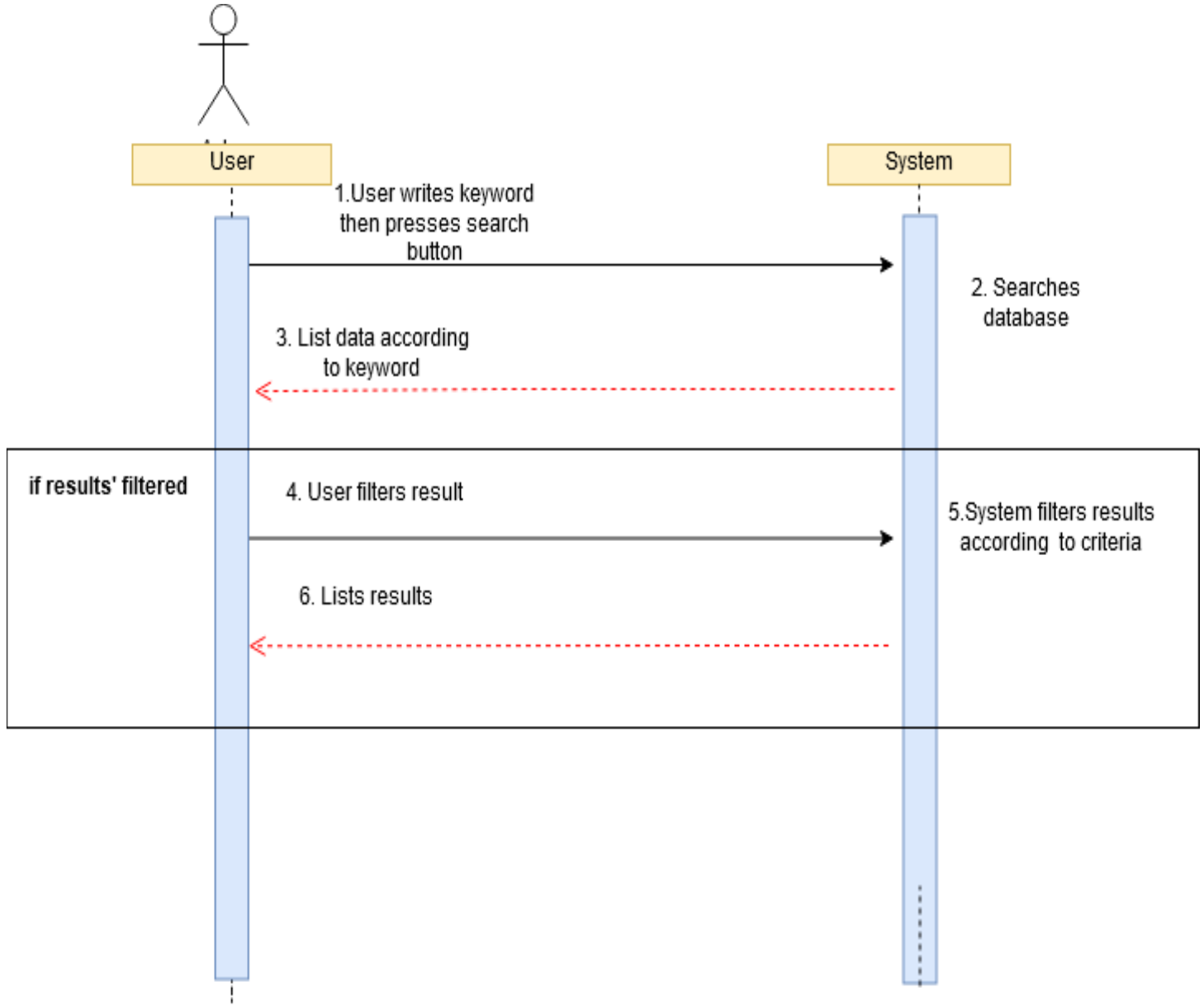
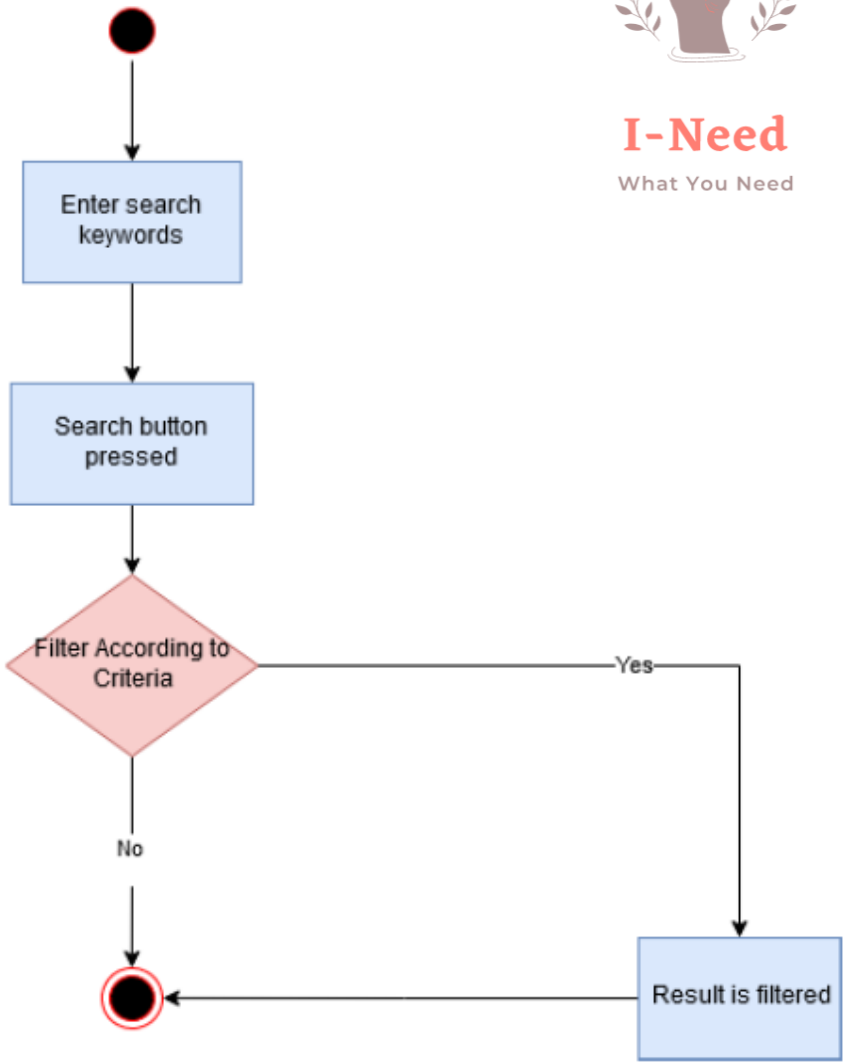
What You Need



1st Increment (Search)





I-Need
What You Need

Software Product Development Environment

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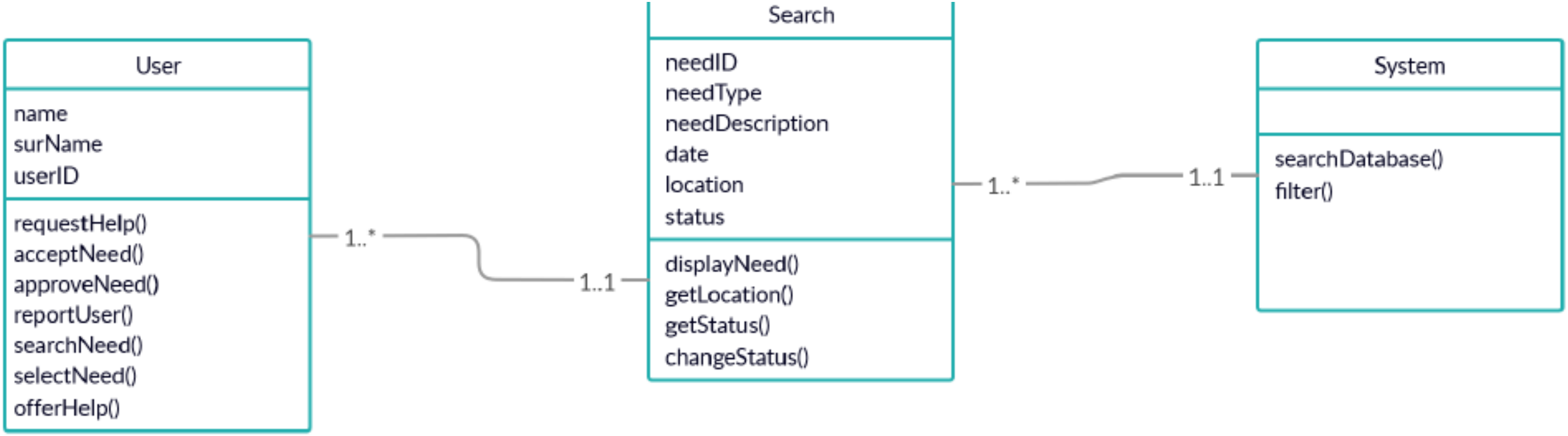
What You Need

Programming Language	Java, JavaScript
Framework	React.js
Database	Firebase
Version Control	Git
Verification & Validation	Espresso(Android), MochaJS(Web)
Open Source Software	Google Maps API
IDE	Android Studio, WebStorm, Visual Studio Code

Software Architecture

I-Need
What You Need

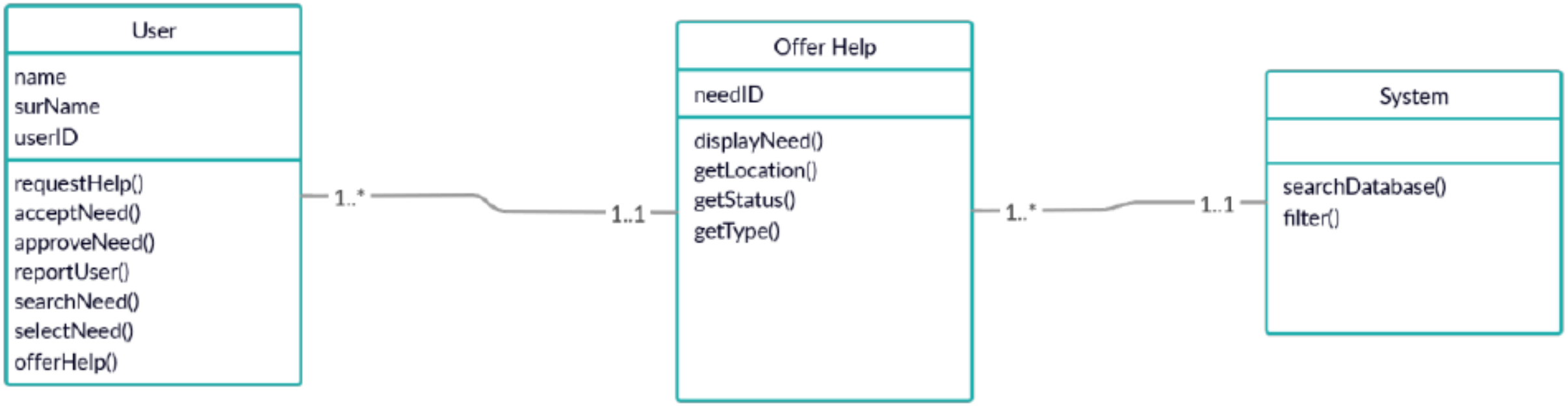
Search



Software Architecture

I-Need
What You Need

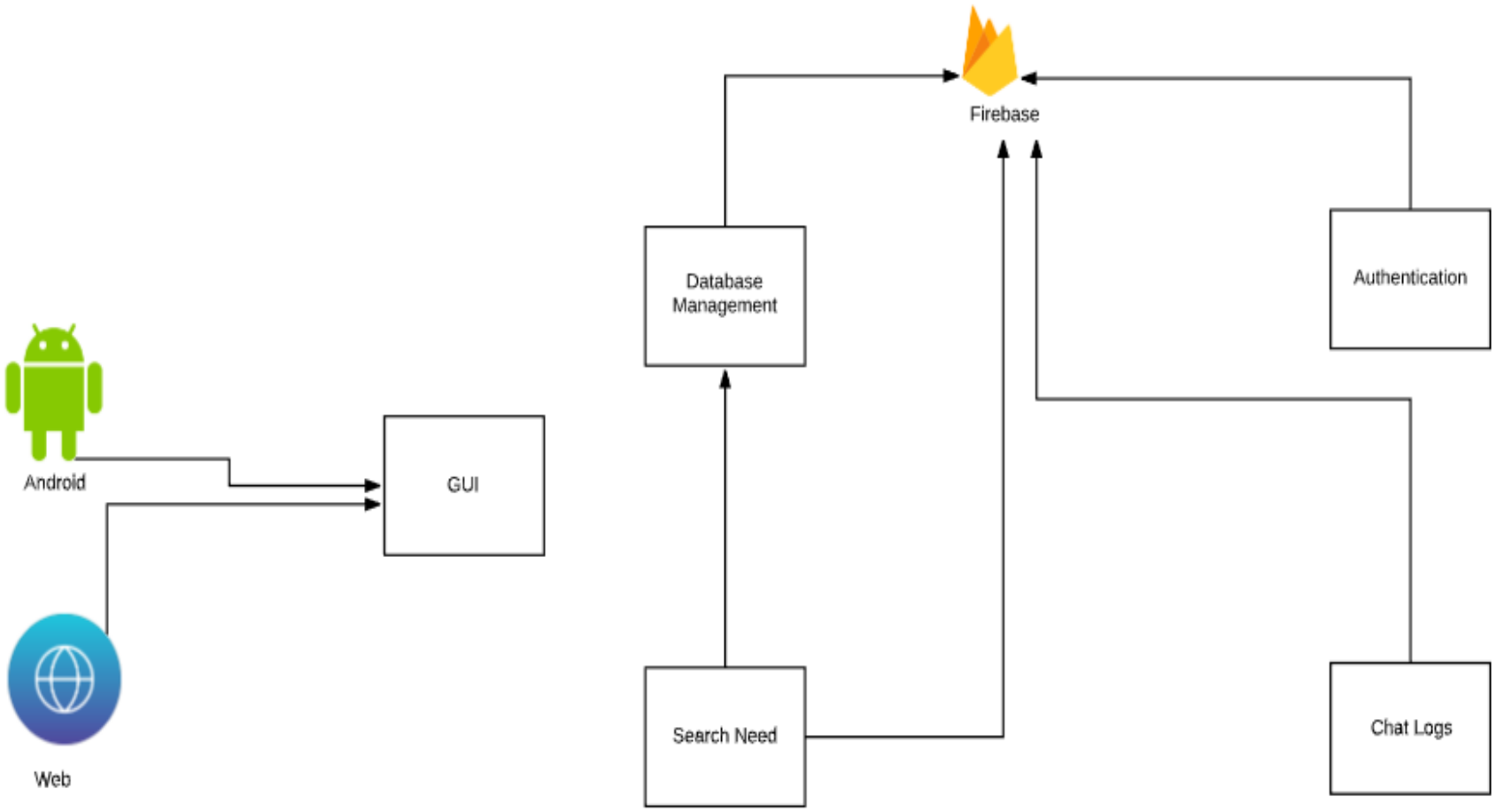
Offer Help



Software Architecture

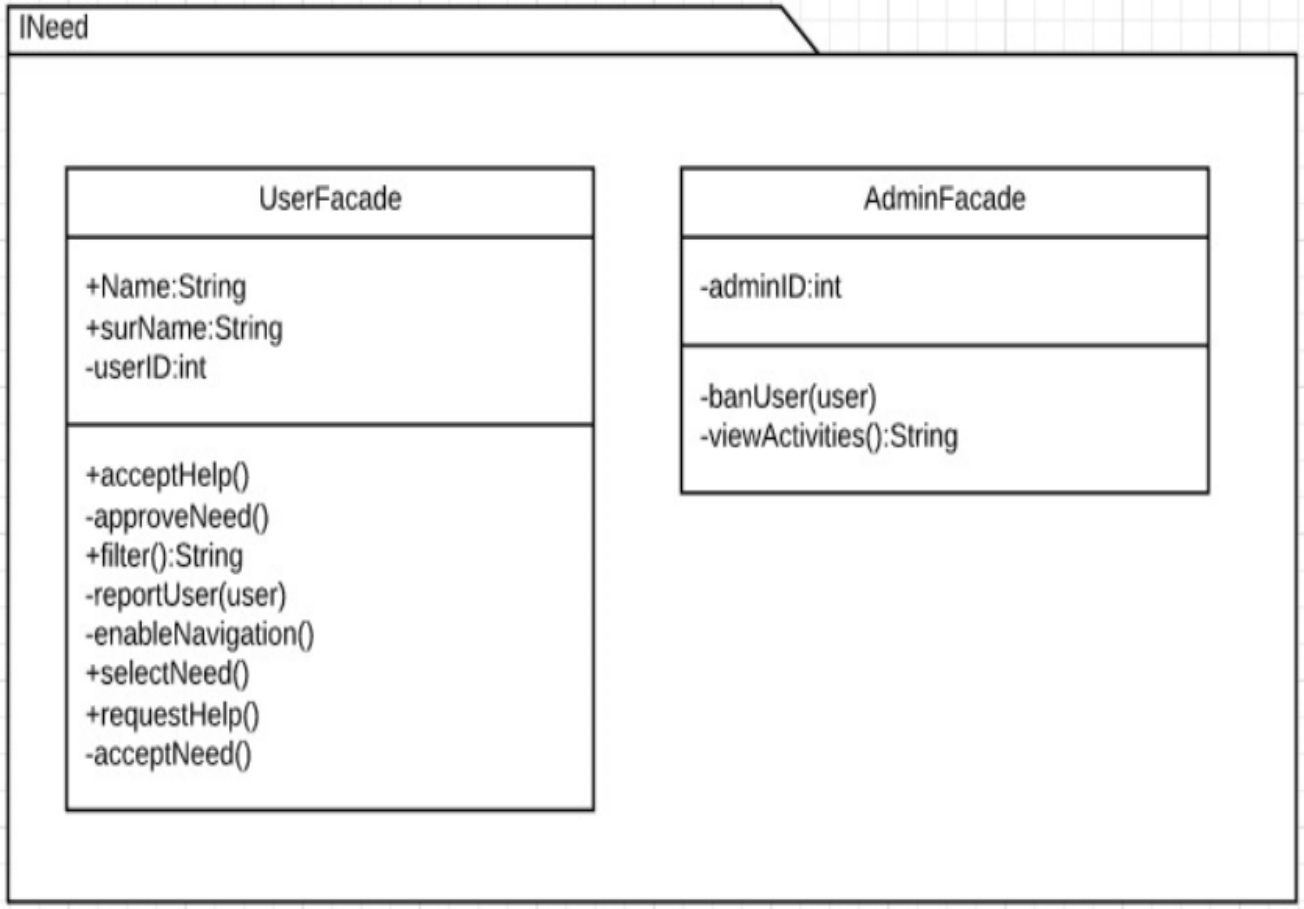
I-Need
What You Need

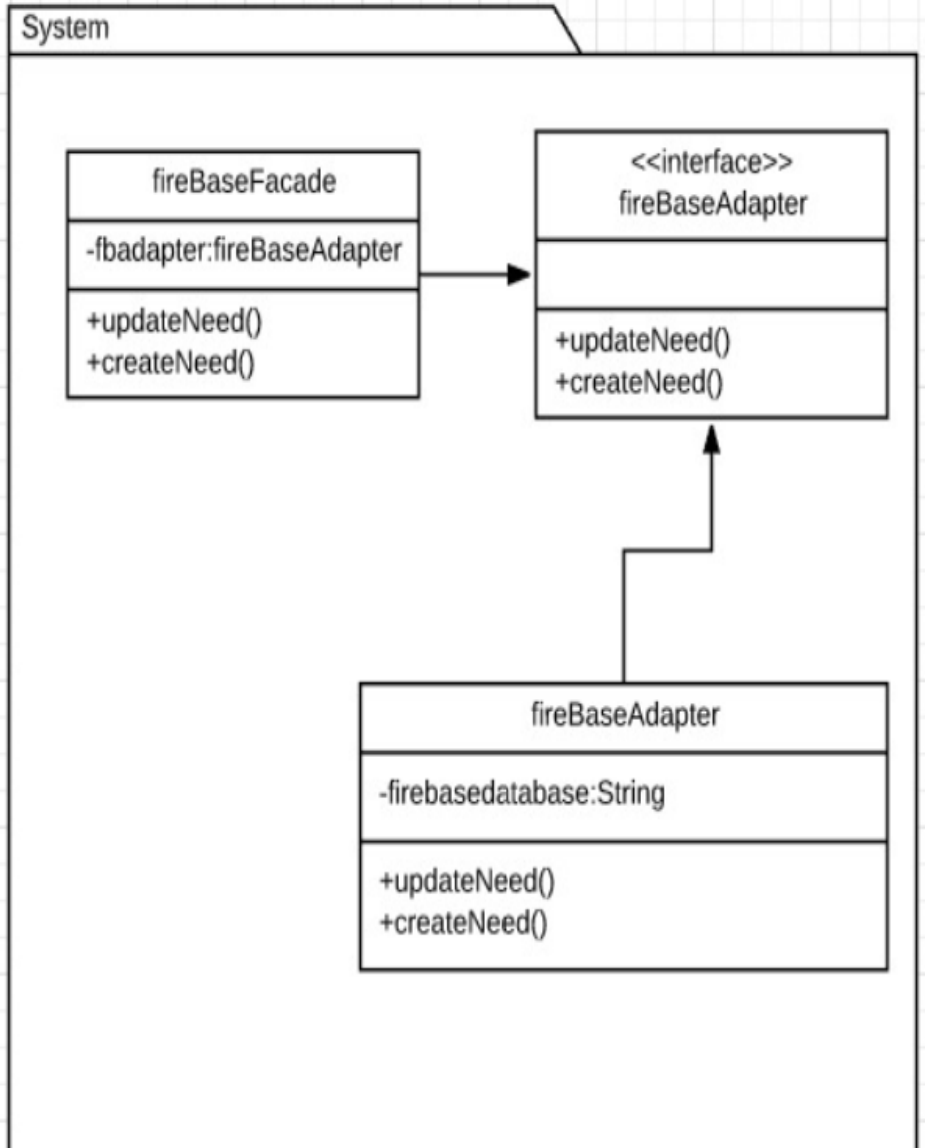
Communication
Mechanism



Software Architecture

Sub-Systems
Interface Design





Quality Requirements

• **Reusability**: I-Need's coding will be done rigorously. Design will be open for extension for any new futuristic in the future.

- **How to achieve:** We use polymorphism, encapsulation, and inheritance precisely throughout our project.
- **Example:** ‘AcceptNeed’, and ‘ApproveNeed’ will be derived from ‘Need’ super class.

• **Maintainability:** I-Need repairment will be done in a breeze. Since our concern is the society, our design will not accept any kind of fault or errors.

- **How to achieve:** We assign each subsystem with one particular job to keep our code healthy. Therefore, we will know where is the problem when it occurred.
- **Example:** ‘SelectNeed’ class will only be used for selecting among searched criteria.

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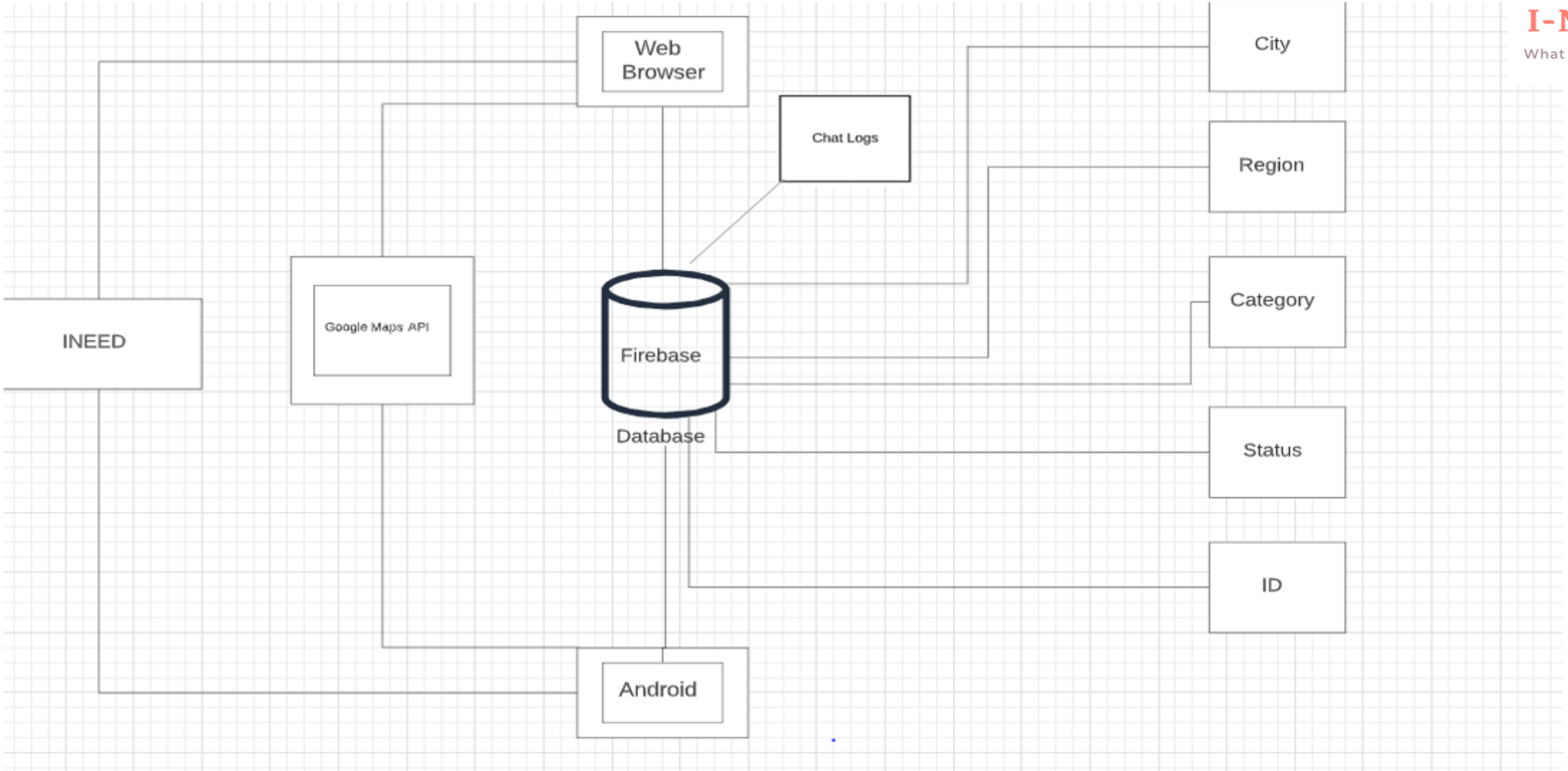
Quality Requirements

Our design will also implement other non-functional requirements:

- **Availability:** Our program shall be available 99% of the time.
- **Portability:** Our code should be able to transferable to other platforms.
- **Extensibility:** Our code provides enhancements without impairing existing system functions.
- **Usability:** Our program's GUIs will be user-friendly

Physical Architecture

I-Need
What You Need



Project Effort, Schedule, and Responsibilities

I-Need
What You Need

9	**Front End Development**	**52 days**	**Mon 2/3/20**	**Tue 4/14/20**		
10	Android UI Development	21 days	Mon 2/3/20	Mon 3/2/20		Enes Kuluk,Oğulcan Delice,Mert Yılmaz,Mert Şağban
11	Web Development	31 days	Tue 3/3/20	Tue 4/14/20		Mert Yılmaz,Mert Şağban,Enes Kuluk,Oğulcan Delice
12	**Back End Development**	**59 days**	**Mon 2/3/20**	**Thu 4/23/20**		
13	Authentication	3 days	Mon 2/3/20	Wed 2/5/20		Oğulcan Delice,Mert Yılmaz
14	Database Implementation	3 days	Fri 2/7/20	Tue 2/11/20		Enes Kuluk,Oğulcan Delice
15	Google Maps API Implementation	14 days	Sun 1/12/20	Wed 1/29/20		Enes Kuluk,Mert Şağban
16	Search and Filtering Function Implementation	10 days	Sat 2/29/20	Thu 3/12/20	14	Enes Kuluk,Mert Yılmaz
17	Notification Function Implementation	10 days	Fri 3/13/20	Thu 3/26/20		Mert Yılmaz,Oğulcan Delice
18	**Admin Panel**	**7 days**	**Fri 3/27/20**	**Mon 4/6/20**		
19	Ban User Implementation	2 days	Fri 3/27/20	Mon 3/30/20		Oğulcan Delice,Mert Şağban
20	View Activities Implementation	5 days	Tue 3/31/20	Mon 4/6/20		Oğulcan Delice,Mert Şağban
21	**User Panel**	**13 days**	**Tue 4/7/20**	**Thu 4/23/20**		
22	Request/Accept Help Implementation	5 days	Tue 4/7/20	Mon 4/13/20		Mert Yılmaz,Oğulcan Delice
23	Offer Help Implementation	5 days	Tue 4/14/20	Mon 4/20/20	22	Oğulcan Delice,Mert Şağban
24	In-App Messaging Implementation	8 days	Mon 4/13/20	Wed 4/22/20		Mert Yılmaz,Mert Şağban
25	Approve Need Implementation	5 days	Fri 4/17/20	Thu 4/23/20	22,23	Enes Kuluk
26	Testing	7 days	Fri 4/24/20	Mon 5/4/20	12	Enes Kuluk,Mert Yılmaz,Oğulcan Delice,Mert Şağban
27	Final Presentation	4 days	Tue 5/5/20	Fri 5/8/20		Enes Kuluk,Mert Yılmaz,Oğulcan Delice,Mert Şağban

Project Effort, Schedule, and Responsibilities

2nd Incrementation

I-Need
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15		Google Maps API Implementation	14 days	Sun 1/12/20	Wed 1/29/20		Enes Kuluk,Mert Şağban
16		Search and Filtering Function Implementation	10 days	Sat 2/29/20	Thu 3/12/20	14	Enes Kuluk,Mert Yılmaz
17		Notification Function Implementation	10 days	Fri 3/13/20	Thu 3/26/20		Mert Yılmaz,Oğulcan Delice
18		**Admin Panel**	**7 days**	**Fri 3/27/20**	**Mon 4/6/20**		
19		Ban User Implementation	2 days	Fri 3/27/20	Mon 3/30/20		Oğulcan Delice,Mert Şağban
20		View Activities Implementation	5 days	Tue 3/31/20	Mon 4/6/20		Oğulcan Delice,Mert Şağban
21		**User Panel**	**13 days**	**Tue 4/7/20**	**Thu 4/23/20**		
22		Request/Accept Help Implementation	5 days	Tue 4/7/20	Mon 4/13/20		Mert Yılmaz,Oğulcan Delice

Project Effort, Schedule, and Responsibilities

I-Need
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3rd Incrementation

20		View Activities Implementation	5 days	Tue 3/31/20	Mon 4/6/20		Oğulcan Delice,Mert Şağban
21		**User Panel**	**13 days**	**Tue 4/7/20**	**Thu 4/23/20**		
22		Request/Accept Help Implementation	5 days	Tue 4/7/20	Mon 4/13/20		Mert Yılmaz,Oğulcan Delice
23		Offer Help Implementation	5 days	Tue 4/14/20	Mon 4/20/20	22	Oğulcan Delice,Mert Şağban
24		In-App Messaging Implementation	8 days	Mon 4/13/20	Wed 4/22/20		Mert Yılmaz,Mert Şağban
25		Approve Need Implementation	5 days	Fri 4/17/20	Thu 4/23/20	22,23	Enes Kuluk
26		Testing	7 days	Fri 4/24/20	Mon 5/4/20	12	Enes Kuluk,Mert Yılmaz,Oğulcan Delice,Mert Şağb
27		Final Presentation	4 days	Tue 5/5/20	Fri 5/8/20		Enes Kuluk,Mert Yılmaz,Oğulcan Delice,Mert Şağb

Product & Process Metrics

PUM (Problems per User-Month)

- It measures the problems that users encounter when using the product.
- It will contain the users' perspective towards the problem.
- Will be calculated monthly.
- Includes the non-defect-oriented problems & defect problems.
- For monitoring purposes.

The equation that we are going to use:

PUM = Defect + Non-Defect oriented problems (for a determined time) + Total number of license months of the software during the period.

Where,

Number of license month of the software = Number of install license of the software * Number of months in calculation period.

Product & Process Metrics

BMI (Backlog Management Index)

- Related to the rate of defects arrivals and rate at which fixes for reported problems become available.
- Count of reported problems that remain at the end of each month.
- For managing(control) and maintenance processes.

BMI = Number of problems closed during the month / Number of problems arrived during the month * 100

As a percentage result.

- If BMI is higher than 100 backlogs are reduced.
- If BMI is lower than 100 backlogs are increased.

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Thank You