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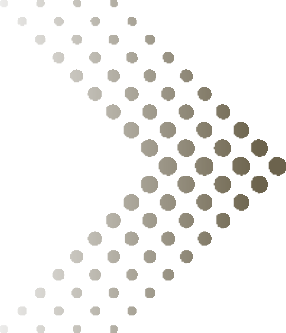
SOFTWARE REQUIREMENTS SPECIFICATION **FOR**

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**STUDY GROUP**

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1. **- Introduction**

#### Purpose :

* + 1. **Document purpose:**

This document describes the function and the performance requirement allocated to the ( GROUP STUDY APPLICATION )

project. In the following sections, it specifies the requirements of the system in respect to the audience.

#### Intended audience:

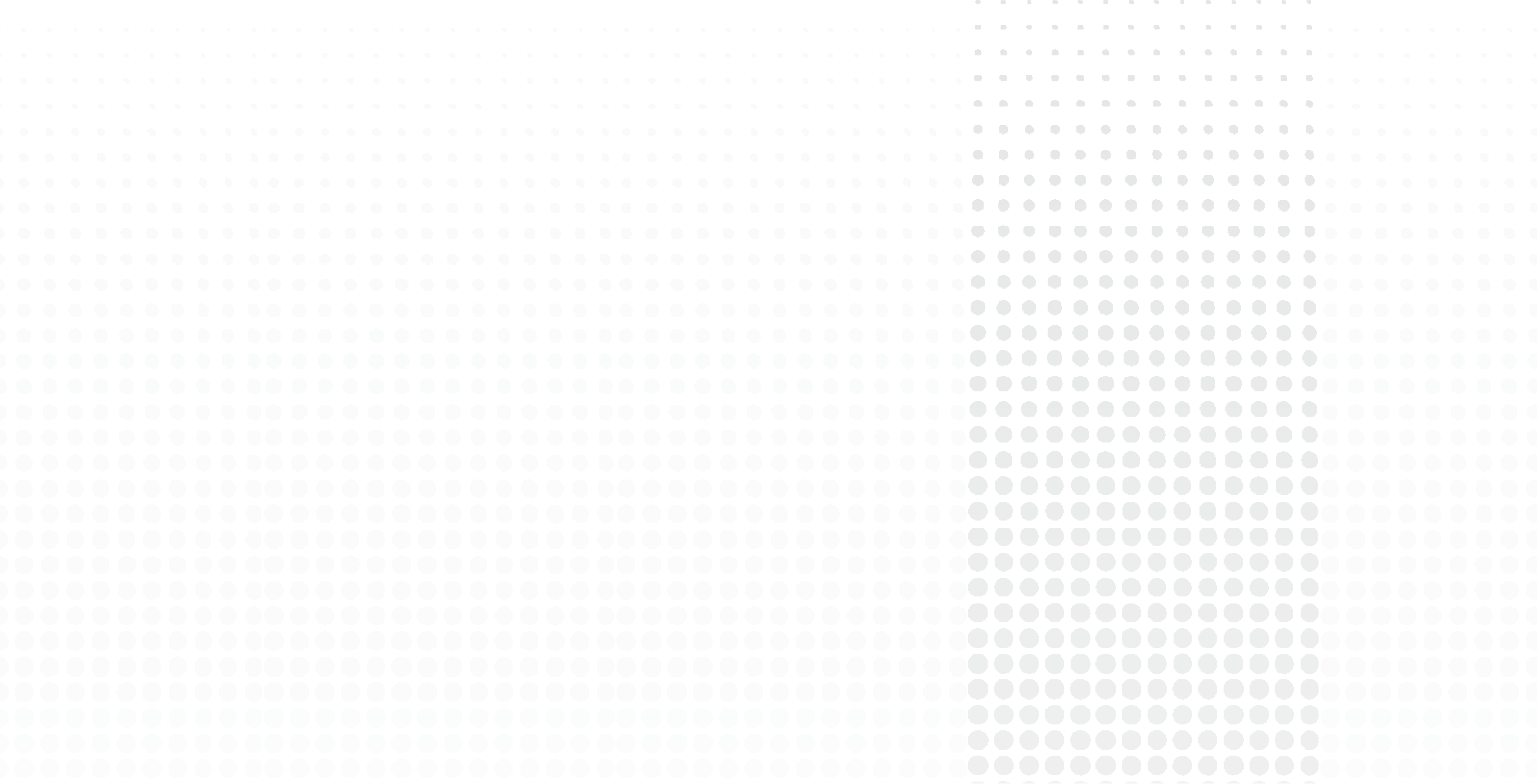
The intended audience to use this app are :

-Students

-People interested in a certain subject and would like to have a community to discuss their interests.

The overall vision of the project is to provide the audience with a unified place to discuss topics of their interests, study with groups and improve their understanding in a topic they lack in.

#### Scope :

This software requirement specification is being developed for the ( Group Study App ) project. It provides the opportunity for the students to join or create a study group in a subject they have difficulty in understanding, this app will allow student to better communicate with each other and to improve their grades.

#### References :

1. IEEE STD 830-1998, "IEEE Recommended Practice for Software Requirements Specifications". 1998 Edition, IEEE, 1998.
2. CS383 lecture notes.
   1. **Document overview:**
      1. **Introduction**

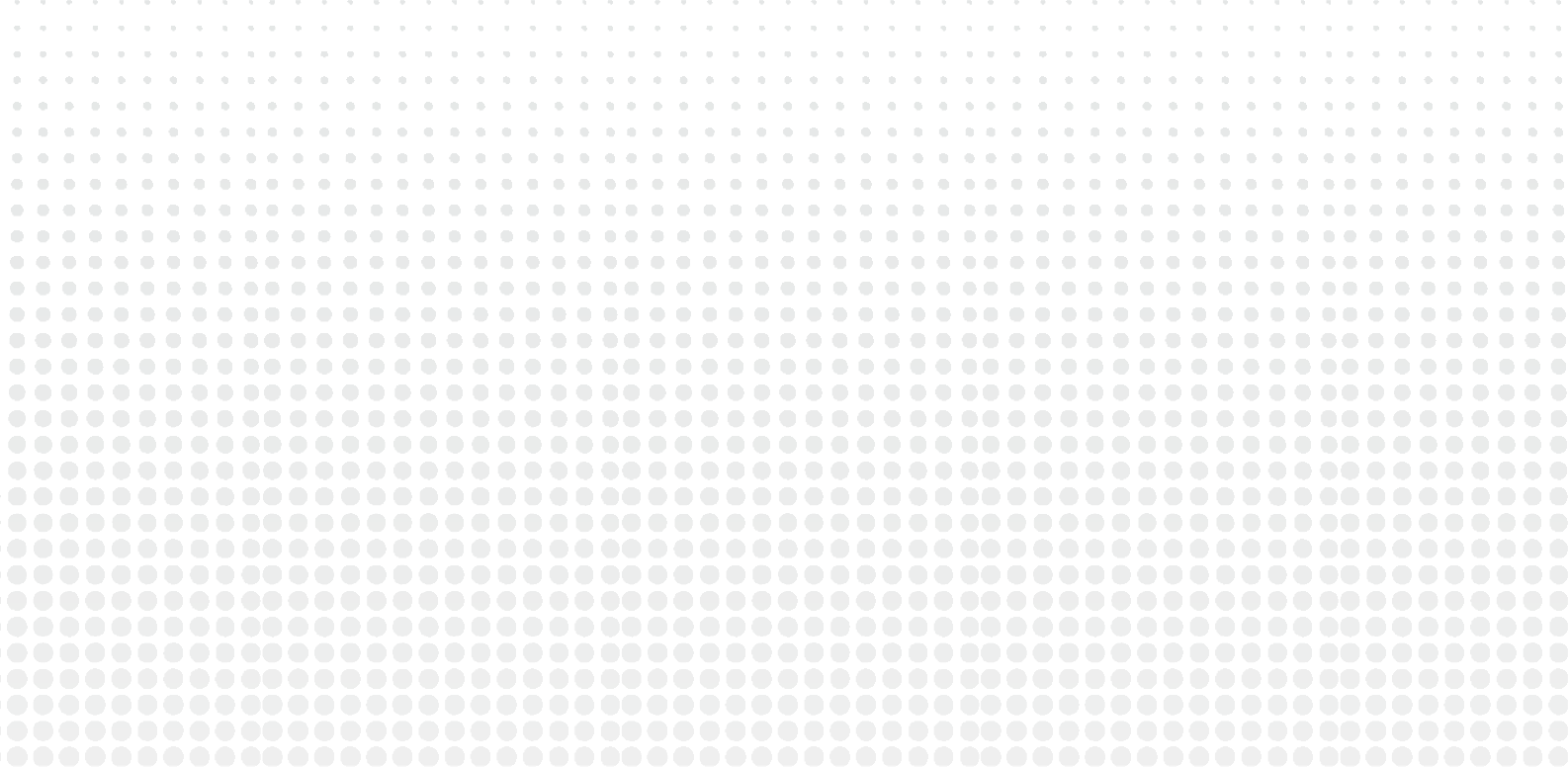
provides an overview of the entire information described in the document. Which involves the purpose and the scope of the document, stating the functions to be performed by the. system. In addition, it lists The references used.

##### Overview Description

It determines the factors which affect the requirements of the system. It provides a brief description of the requirements to be defined in the next section called 'specific requirement'. It comprises the following sub-sections:

Product perspective: determines whether the product is an independent product or an integral part of the larger product. It determines the interface with hardware, software, system, and communication. It also defines memory constraints and operations utilized by the user.

Product functions : provides a summary of the functions to be performed by the software. The functions are organized in a list so that they are easily understandable by the user.



User characteristics : determines general characteristics of the users.

Operation environment : determines the requirements that can be delayed until release of future versions of the system.

Assumption and dependency: provides a list of assumptions and factors that

affect the requirements as stated in this document.

# - Overview Description

* 1. **Product Perspective:**

Study Group apps are not new to the global market, but for the Saudi market it is. Our app searches for the groups available in your area assuming that the transaction is individual, and we have designed a database distributed around the cities of Saudi Arabia to locate the groups. It’s an independent product, that stores the following information:

-Group details:

The type of group and the information you provide includes the time, date and place of residence of the study group and the person in charge of it, as well as the possibility of creating his own group.

-User description:

It includes the user's name, phone, information, and chat rooms to communicate with users either as a group or as individuals.

-Description of groups:

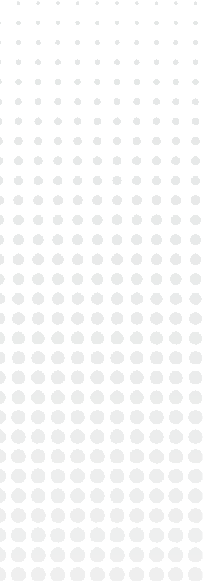
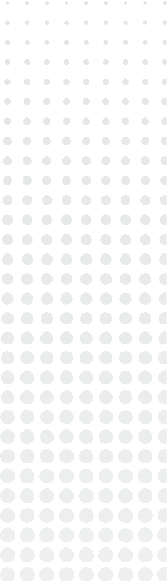
There are two types of groups, private and public. You can join the turban directly, but the private turban must be approved by the group admin.

##### Product Functions:

the user must be able to perform the following functions (as illustrated in the wireframe in (figure 1.1): make a group:

choosing the topic of the group the location,

the time,



-the number of members allowed to join and the type of groups, private or public

Join a group:

-Select the topic of the group choose group

or search for it by the name of the group. Join directly if it is public .

Send a request to join if it is private.

Notification and chat:

Notifying the user of the approaching time of the study group



###### User Class And Characteristics :

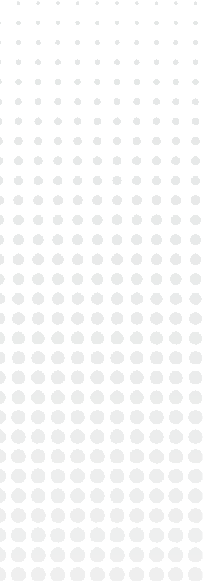
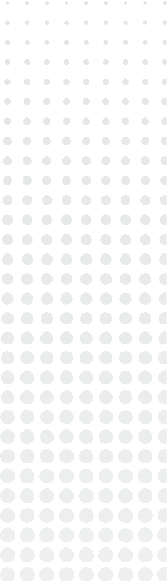
Basic knowledge of using computers is adequate to use this app. Knowledge of how to use a mobile with an android system and having internet access is necessary. The user interface will be friendly enough to guide the user.

Users of the application must be able to retrieve the information of the organized groups at the time of the event or the organizing members.

###### Operating Environment :

Operating environment for the Study Group app is as listed below.

* distributed database
* client/server system
* Operating system: android.
* database: sql+ database



* platform: vb.net/Java/PHP

###### Assumption Dependencies :

The data of the study groups is supposed to be available so that the user can choose the appropriate study group and join it. It is also assumed that the user is aware of dealing with the mobile phone and how to navigate and chat through it, Since the application is a web based application there is a need for the internet browser. It will be assumed that the users will possess

decent internet connectivity

1. **System Features ( Functional Requirements )**

###### Functional Requirements:

-Users can search about any study group based on categories.

-Users can join public groups

-Users can send a request to join private groups.

-The user shall sign up / sign in to the system.

-The user can enable / disable Notifications.

-The user shall be able to choose their interests to show suggestions.

-Each user using the system have uniquely id.

-User can create a group and add members.

-Users can create a chat between them.

-User can edit their profile (name, id, picture).

-User can see group details.

-User should determent their location.

###### System Requirements :

* The system shall be made sure of the time and the location of the groups.
* The system should be available all the time 24/7.

-The system shall update the changes automatically.

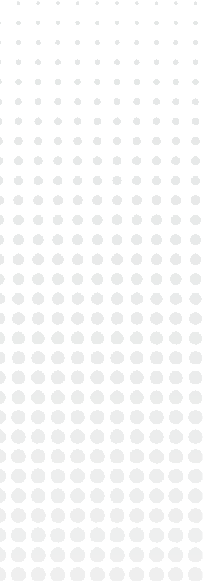
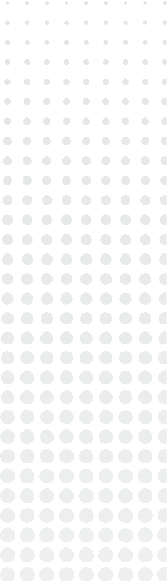
-The system shall remind the user about the rules

-The system shall remind the user approaching times of meeting

-The application shall allow users to define custom attributes and assign them a unique ID.

-The application shall allow users to attach one or more images or documents (PDF, Word, Excel, PowerPoint, Visio, …).

* 1. **User Requirements:**



-user shall be asked to choose the language of the application and their location then presses on the continuation.

-The user shall sign up / log in to the system.

-The User must put a unique ID to enable members to add each other using it

-The user shall select their interests to show suggestions

-User should determine their location

-The user must enable Notifications in order to receive notifications

##### Structured Specification :

Function name:

User should determine their location Description:

This use case describes locating the user to filter and show near study groups Input:

The user enters their location Output:

The system saves the location Pre-conditions:

activate location services internet availability Action:

The system requests location users after sign up to the system

the system displays a list of all the near study groups based on the user’s location. the system provides update the locations

Post-conditions:

show nearby study groups successfully

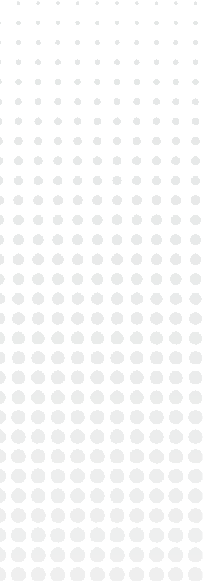
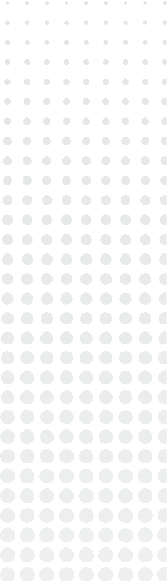
Function name:

User can edit their profile (name, id, picture) Description:

The ability to change the profile page at any time Input:

The User information

The user inserts a new information Output:



The system will update the profile page Pre-conditions:

current data and the entered data are correct internet availability

Action:

the system asks for the new on information profile page the system update to the new information

the system allows change id only twice a month Post-conditions:

The page of profile successfully updated

Function name:

The user shall be choosing their interests (categories) Description:

The ability to choose user interests and system registers it and Shows study group suggestions in a main page

Input:

The user Selects one or more of their interests and submit Output:

The system will show suggestions Pre-conditions:

the user submits at least one of their interests internet availability

Action:

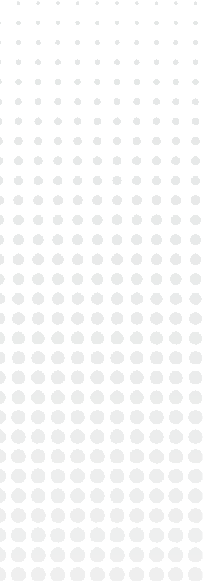
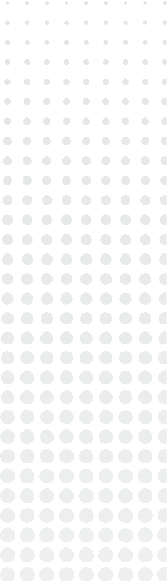
The system asks the user about their interests

The system offers suggestions for study groups based on its choice Post-conditions:

Function name:

Users can create a chat for their groups or between individuals Description:

The ability of the user to activate chats between him and another user, or to create a group of users to specify the time or place of study, share an information about course (private, public)



Input:

The user creates one or more of chats Output:

The system saves chats on the device Pre-conditions:

availability of the internet to have a chat Action:

the system asks if user want chats with one or create a group chat the system can filter 1-1 or Groups, all

## External Interface Requirements

###### User Interface:

in addition to the interfaces shown in figure 1.1, a first-time user of the mobile application should see a welcome page the rest of the interfaces are detailed in figure1.1.

###### Hardware Interface:

the software is developed for tablets, phones, etc. that use an android system. And an internet connection is required.

###### Software Interface

* + 1. the software is developed for android system devices.
    2. the app uses sql+ for the database, for its high and fast performance.

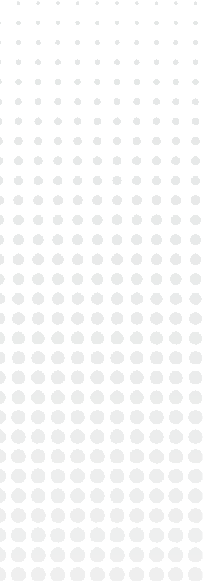
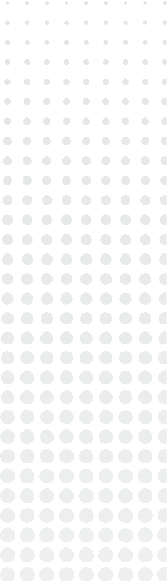
###### Communication Interface:

1. web browser support:

since the app is not web-based, we need to decide how the app preforms on different web browsers and be compatible.

1. Message formatting:

user can exchange different data formats ( Audio, image, or video) and different types of documents( pdf, docx, etc).



# Non-functional Requirements

##### Security Requirements:

Account creation:

System require users to create accounts to access applications that store information and display profiles.or system grants access to accounts when users enter the correct username and password.

Password generation:

An application does not grant access until the user creates a strong password.

Security question answering:

A security system for a product ask questions that only the user Knows the answer to. This can help verify a user's identity when they log into an account.

Account locking:

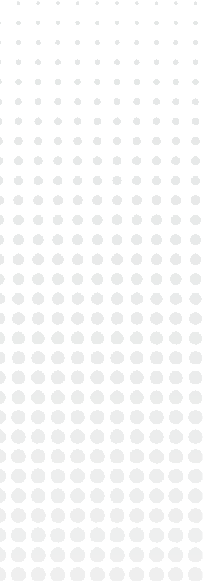
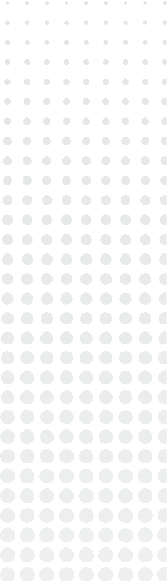
After a certain number of login attempts, a security system lock an account to protect a user's information from potential hackers. To unlock their account, a user can typically call the company to verify their identity and set a new password.

##### Performance Requirements:

Prominent search feature:

The search feature should be prominent and easy to find for the user.In order to for a user to find the search feature easily.

Usage of the filter feature:



The different search options should be evident, simple and easy to understand. In order to for a user to perform a search easily and get the desired results out of the filter.

Usage of the result in the map view:

The results displayed in the map view should be user friendly and easy to understand. Selecting a pin on the map should only take one click.In order to for a user to use the map view and be able to locate their location.

Response time:

the response time of the searching groups/topics, loading pages, etc . should take no more than 2 seconds 100% of the time.

System dependability:

The fault tolerance of the system.Error handling should be implemented and the application should be able to handle all run. time errors. If the system loses the connection to the Internet or when an error occurs, the user should be informed.

Scalable database:

The database should be scalable; it must have the capacity to hold large number of users in future.

Flexibility:

The application should be flexible for future enhancements, for example, the addition of a few more research analysis questions.

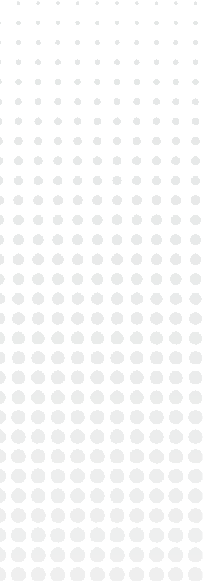
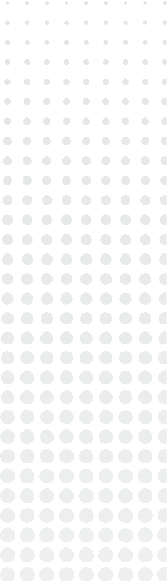
* 1. **Usability:**

Ease of use and clarity of the program. the app should have a simple UI that is self explanotory.

* 1. **Availability:**

The study group must be available at the specified time and place so that the user can join the appropriate study group

* 1. **Testability:**



Testing for the application will be followed as a continuous process followed in parallel to the requirements, design and implementation phase. This will include a pre-testing phase, which validates the requirements of the system and also provides a feasibility study on the project. The next phase will be the testing phase which will include testing the complete application after implementation.