Software Requirements Specification Template

Software Engineering

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<PartyTime>

Software Requirements Specification

<1.0>

<30/1/2024>

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Foundation of Software Engineering Course

<PartyTime>

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1. Introduction

This document sets out the software requirements for a party booking application named PartyTime. This application provides a reservation and management service for all events and an easy-to-use interface for users. Its digital platform is aimed at individuals who want to host parties and investors who want to rent out their own spaces and it's designed to simplify the process of booking and managing parties by choosing the service and setting the appropriate date.

1.1 Purpose

This document defines the requirements for PartyTime application version (1.0)

It guides the intended audience which includes:

- *Project manager.*
- *Development team.*
- *Testers.*

1.2 Scope

This program is provided for all devices that support the iOS and Android systems. This program is characterized by the ease of designing the interfaces so that it facilitates the process of choosing the service. Either we provide it at the user's place of residence or he chooses from among the available spaces in the application; by selecting the user's location the nearby spaces will appear to him, as this application saves a lot of time and effort in searching for a place to hold events and the preparations based on them.

This project is proposed to be completed within 9 and a half months, and the specified cost of 14.000 SAR.

1.3 Definitions, Acronyms, and Abbreviations

Space/s	*It is the place where the party is held, such as: parks, work offices, schools, Chuckecheese.*
User	*Someone who interacts with the mobile phone application.*
Admin/Administrator	*System Administrator who is given specific permission for managing/controlling the system.*
Investors	*They are business owners, who have spaces to rent to people. Example: renting a private party room in a café for a group of people.*
SAR	*The Saudi riyal currency of Saudi Arabia.*

Shomoos	*Shomoos "National Tourism Information Network" is an important component to help maintain security in the Kingdom of Saudi Arabia.*
GPS	*Global positioning system.*
DESC	*Description.*
RAT	*Rational.*
DEP	*Dependency.*
TAG	*A unique identifier.*
MUST	*The minimum level required to avoid failure.*
WISH	*A desirable level of achievement that may not attainable through available means.*

1.4 References

i *SAR -Wikipedia.*

ii *https://web.shomoos.com.sa/Portal/ar/StaticPage/AboutShomoos*

1.5 Overview

The remainder of this document includes two chapters. The second one provides an overview of the system functionality and system interaction with other systems, also introduces different types of stakeholders and their interaction with the system. Further, the chapter also mentions the system constraints and assumptions about the product. The third one provides the requirements specification in detailed terms and a description of the different system interfaces. It also includes the functional requirement required for the system in order to function (mentioned based on features) and non- functional requirement which help ensure that a product will work the way the users and other stakeholders expect it to. At the end there is a use case describing the whole system with its process and operation.

2. General Description

2.1 Product Perspective

Our product is a party reservation application. Users can choose a package to be planned at their place of residence , or book a space from one of our investors through our app. The space will then be Reserved and decorated. What distinguishes our app is that it works with specialized planners, so individuals do not need to talk to several people from different apps. Investors also benefit from the platform to market their spaces.

2.2 Product Functions

The PartyTime application will offer the following key functions:

1. User Registration and Authentication:

Users can create accounts and securely authenticate themselves to access the application.

2. Booking and Reservation Management:

•Users can directly book and manage their reservations for event services through the application.

•The software will facilitate the process of selecting the desired space or service for the event, whether it is a provided space or a location chosen by the customer.

•Users will be able to view availability, compare options, and make informed decisions.

3. Location-Based Services:

Users can explore available options conveniently and narrow down their search based on location preferences.

4. User Search :

The application will allow users to search for the spaces they want.

5. Notifications and Reminders:

The software will send notifications and reminders to users regarding their bookings, upcoming events, payment due dates, and other relevant updates, users will stay informed and can manage their events efficiently.

6. Add space to rent (Button to add space):

for an investor can add all his private space after going through several steps for approval in the application.

2.3 User Characteristics

Several users will use the PartyTime program:

1. *The first user (customers):*

They will conduct the ordering process in terms of choosing the required service from the coordination method (such as the food provided, the method of coordination required, the number of attendees, etc.), and from choosing the area and the place where the ceremony is to be held.

2. *The second user (investors - owners of ready-made places):*

They will display their places from family Chalets, cafes or open parks, by entering all their data from the location of the site, the opening time and the price of the place.

3. *The third user (administrator):*

*They are responsible for all of the above by supervising all data entered by the client and investor, ensuring the integrity of the service flow, and being able to solve all problems related to the system, by access directly into the database that contains all user data, whether they are clients or investors***.**

2.4 General Constraints

PartyTime's development budget is set at [14,000 SAR] and this limits the resources available for things like:

- *Hire fewer developers or specialists.*
- *The PartyTime application must be completed within [9 and a half months].*

PartyTime needs to integrate with existing technologies, including:

- *User devices and platforms: Ensure compatibility with popular browsers, operating systems,and mobile devices.*
- *The investor must be registered on the Shomoos platform.*
- *The user must book one party per day and does not accept booking more than one party.*

Performance Constraints:

- *The system must respond to user queries within 1.5 seconds on average.*

2.5 Assumptions and Dependencies

PartyTime will be developed for both iOS and Android platforms, and it should be compatible with the latest version of these operating systems. Any changes in platform requirements and updates may impact the development and functionality of the application.
The SRS assumes that users will have reliable Internet connectivity to access and use the

PartyTime application. The system requirements may be influenced by the need for an Internet connection.

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

*If the user opens the application, the start page will appear with the application logo on it, see **Figure 1**. After that, the login page will appear if he is not a new user, see **Figure 2**. If the user has not registered, he should be able to do that on the sign-up page, see **Figure 3**. The Home page should be directly shown to the user when the application is opened if he isn't a new user and no more than a week has passed since he logged in as shown in **Figure 4**. As for the investor, another interface appears from which he can add his own spaces*

User interface :

Figure 1

Figure 2

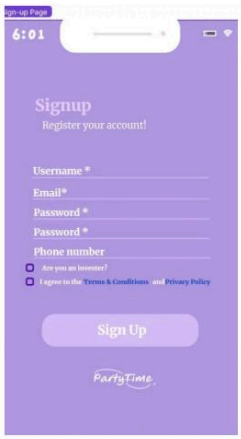


Figure 3

*This interface in **Figure4** shows the services provided in the application :*
1-Organising the party .
2- Choosing a place for the party.

on the left of the interface shows additional icons:
1. Return to the home page .
2- Communicate with customer service .
3- Settings .

and at the bottom of the bar shows an icon in which the user's data can be modified

Figure 4

Figure 5

Figure 6

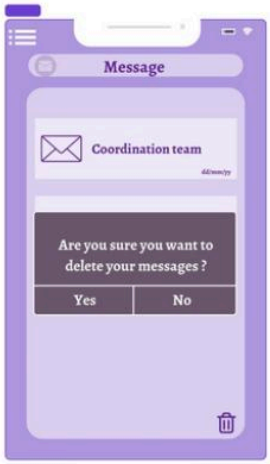


Figure 7

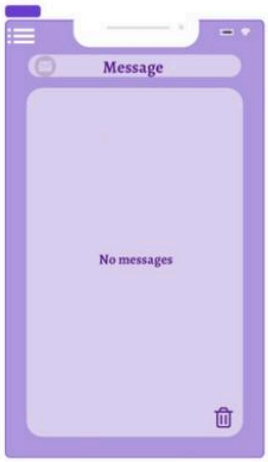


Figure 8

*When you click on the Contact Customer Service button as it appeared in **Figure4**, we will be shown in **Figure5** and **Figure6** a field to contact customer service about facing any problem and a field to communicate with investors (owners of places that have been rented by the user). .*

*At the bottom of the message page, a waste bin appears when we want to delete the message, as shown in **Figure 7** and **8**.*

Figure 9

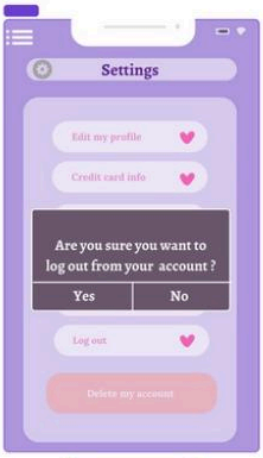


Figure 10

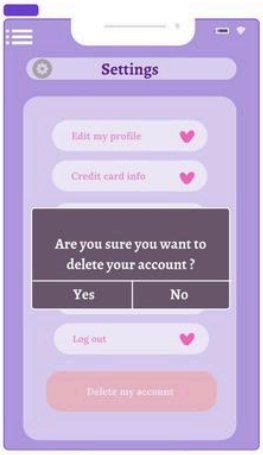


Figure 11

*When you click on the settings button as in **Figure4** you will see 5 operations in **Figure9** that you can modify in addition to logging out of the account and the user's account deletion button as shown in **Figure10** and **Figure11** .*

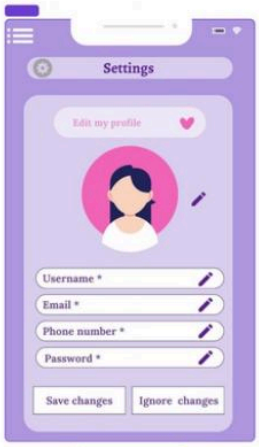


Figure 12

Among the five operations in the settings is to modify the user's profile, as in ***Figure12*** *All of his data can be modified, then he clicks on the "View the changes" button.*

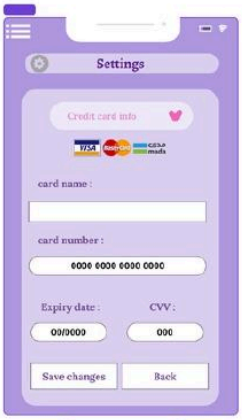


Figure 13

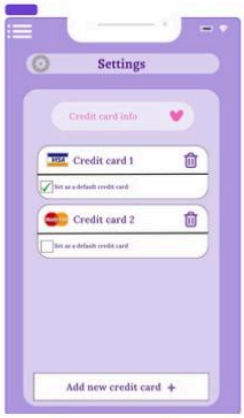


Figure 13.1

There is also a field to add his credit card information, as shown in ***Figure13*** *To save this data, click the Save button, the user can save and add multiple cards as shown in* ***figure 13.1*** *and pick only one default card.*

Figure 14

The user can also choose the appropriate language to run the application, as shown in ***Figure14****.*

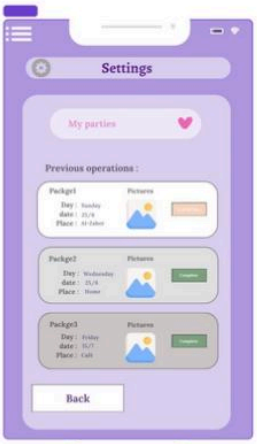


Figure 15

Figure 16

The user can see all his previous and current purchasing transactions through this process, and it appears in ***Figure15*** *All his previous operations, and this interface appears in* ***Figure16*** *when the user has not had any previous operation.*

Figure 17

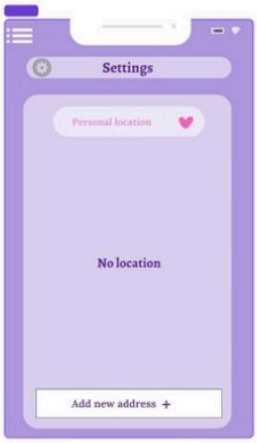


Figure 18

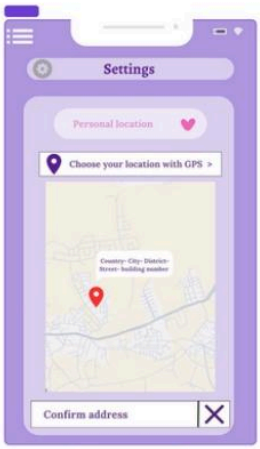


Figure 19

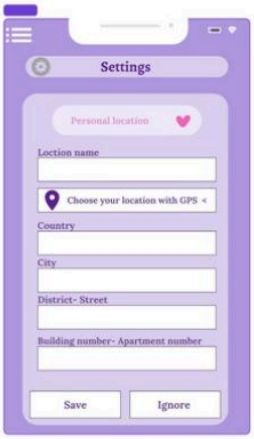


Figure 20

*In this option, the user can choose his personal location **Figure17** if it is previously registered, in order to show him all the available spaces near his area. If there is no previously registered location like **Figure18** , his location can be added either automatically using GPS, as in **Figure19** Or enter data manually by entering all the data shown in **Figure20**.*

Figure 21

Figure 22

Figure 23

*if the user wants to organize his party first he must choose one of the packages that are shown in **Figure 21** then click on the next button to continue, then in **figure 22** the user will choose the right date and time and click on the next button, then in **figure 23** the will user comments all instructions so the work team put the instructions in mind for example party theme, the color of the balloons … etc and at the end the details of payment and check out*

Figure 18.1

Figure 19.1

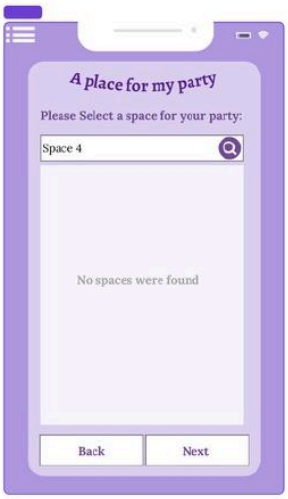


Figure 20.1

When a client rents a space from an investor (a place for my party), he first searches for the space he wants to rent as shown in Figure 18.1, and when he clicks on the three dots next to the space, the details of the space appear as shown in Figure 19.1. When searching for a specific space and it does not exist, the user interface appears. As in Figure 20.1

Figure 21.1

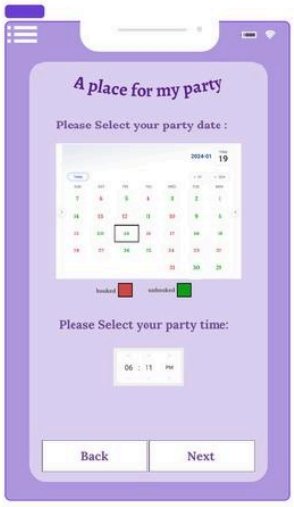


Figure 22.1

Figure 23.1

When the user finishes choosing a space to rent, he can choose whether to select a package or not as shown in Figure 21.1. Upon completion, the user moves to the interface in Figure 22.1 by using the Next button to set a day and time for the party in the rented place, so that the days in green are considered not reserved. In red, reserved. Upon completion, the user goes to the last interface to place comments related to the party, whether for the investor or the coordination team and finally, payment details with the final cost and checkout, as shown in Figure 23.1.

Investor interface :

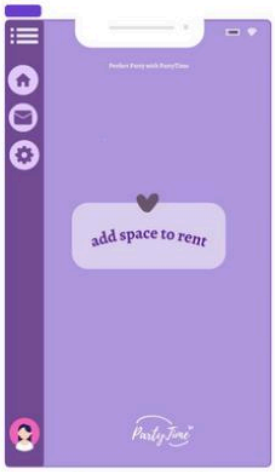


Figure 24

Figure 25

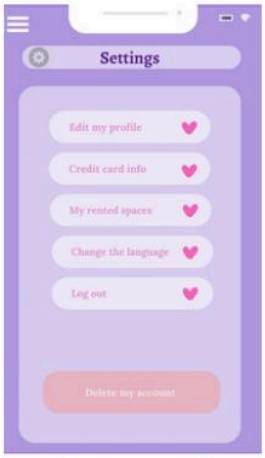


Figure 26

*In **Figure 24**, it is the main screen for the investor when he logs in to the application. The investor's screen is similar to the customer's screen, but the investor has a special function, such as adding a space for rent. The function is shown in **Figures 30 to 37.***

*In **Figure 25** we see the message field, which is the same field that the customer has, but the investor can communicate with customers to meet their needs or communicate with the coordination team to coordinate his rented space.*

Figure 26**, is the settings page for the investor, but what is different is that the personal address box and the My Parties box are deleted, and there is a new box called My Rented Spaces, the details of the new box are explained in **Figures 27 to 29.

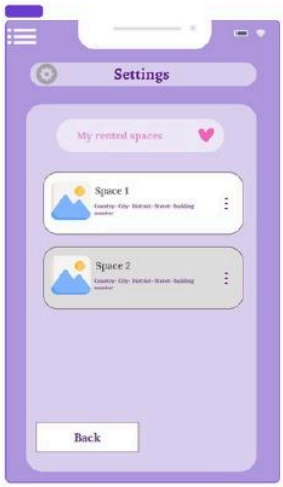


Figure 27

Figure 28

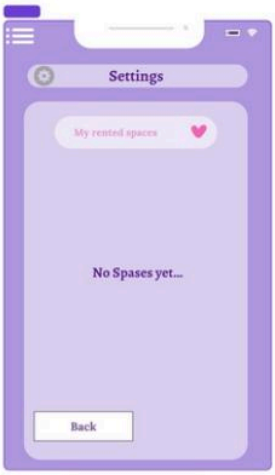


Figure 29

*In **Figure 27**, it represents all the areas registered and saved by the investor. If he wants to see details about his registered spaces, when the investor chooses the box he wants all the details will appear to him as shown in **Figure 28**. He can read and modify the selected space information from the pen mark, He can also view the customers who rented his space and the previous tenants, and he can write messages to the customer(and you must click on the Save Changes button to save any amendment to the information). If the investor has not added any space yet, a message will appear on the screen, as shown in the **Figure 29***

Figure 30

Figure 31

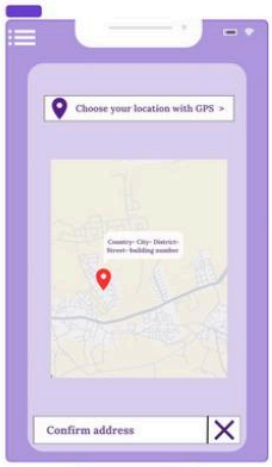


Figure 32

Figure 33

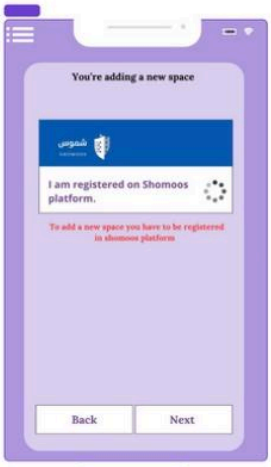


Figure 34

Figure 35

Figure 36

Figure 37

*In the **figure 30** the user begins registering a space to rent by entering the space information and adding pictures of it. When he finishes entering the information, he moves to the other page using the Next button. The user moves to the **figure 31** Here the location of the space is entered either using GPS like **figure 32** or entering the address manually, then the user moves to the next page by the next button or returning to the previous page by the back button to modify something. In **figure 33** Here it is verifying that the user is registered in the Shoumos platform, and the **figure 34** the application confirms whether the user is registered or not, if he is registered in the system. The checkmark appears as in the **figure 35**, and if he is not registered, the error mark appears as in **figure 36**, and the user cannot add their space without registering on the Shoumos platform. When everything is completed, the user moves to the next step, and his space is registered successfully and a window appears as In **figure 37.***

3.1.2 Hardware Interfaces

The camera is used to take photos of investors' spaces, and the application indirectly uses the physical GPS device in the mobile phone hardware that is managed by the GPS application, and also the mobile phone hardware is connected to the application database server to collect data and manage it.

3.1.3 Software Interfaces

The GPS application along with the mobile application share information so that the GPS application can determine the user's location. and the application connects with the Shomoos platform database to check if the investor is registered on the platform, also it uses the calendar application to schedule parties، The Party Time application also communicates with bank credit payment services to obtain customer transfers, and for the investors to receive their funds.

3.1.4 Communications Interfaces

The communication between the partyTime application, and the software and hardware devices is handled by the underlying operating system.

3.2 Functional Requirements

This section describes specific features of the software project. If desired, some requirements may be specified in the use-case format and listed in the Use Cases Section.

3.2.1 < User Class 1 - The User >

ID: F1
TITLE: Download the mobile application
DESC: The user should download the mobile application, it should be available to download by the phone's application store or an equivalent service. The user should be able to download the application for free.
RAT: In order for a user to download the mobile application.
DEP: None

ID: F2
TITLE: Download and notify users of new releases
DESC: The user needs to manually look for new updates of the software release. In the same manner that you would download a mobile application, the user should download the latest version from his phone.
RAT: In order for a user to download a new/updated release.
DEP: F1

ID: F3
TITLE: User signing up (registration)
DESC: After downloading the mobile application, the user should be able to sign up using the app. The user needs to provide his name, email, password and verifying it, and phone number. Also, Agrees to the terms & conditions and privacy policy.
RAT: In order for a user to sign up on the mobile application.
DEP: F1

ID: F4
TITLE: User log-in
DESC: After signing up, the user should be able to access the mobile application and log in. The phone will store the login details, so the user is going to be automatically logged in every time he opens the application.
RAT: In order for a user to log in on the mobile application.
DEP: F1, F3

ID: F5
TITLE: Organizing my party (Party planning button).
DESC: The user can Organize his party and learn what suits him by choosing the appropriate type of package and its accessories. The user can see all the packages available to the application, along with the prices of all its services. This property provides party planning services and does not provide event spaces. He must specify the date on which the party will be held on the calendar and the time.
RAT: In order for a user to organize his parties by simply choosing the appropriate package in the application.
DEP: F1 ,F4

ID: F6
TITLE: A place for my party (Button to display spaces).
DESC: The user can choose the appropriate space for him to hold his parties, as it contains many diverse spaces that suit all the client's needs. After choosing the space, he can see all the details about the space and he can choose the package to organize and coordinate the party(optional). He must specify the date on which the party will be held on the calendar and the time.
RAT: In order for a user to reserve his own space and organize his parties in the application.
DEP: F1 ,F4 , F11

ID: F7
TITLE: Message (continued to settings).
DESC: The user can contact customer service and owners of the spaces rented. He will show \ receive two message boxes on the page, the first from customer service and the second from the owners of the space (the investor) from which the user rented. On the bottom page, the user can delete his messages.
RAT: In order for a user to communicate with stakeholders in the application.
DEP: F1 ,F4

ID: F8
TITLE: The user sittings.
DESC: The user must click on the setting icon on the main screen to change some of the account settings, such as changing the language, also the user can log out of his account or delete his account permanently.
RAT: In order the user can control his account settings.
DEP: F1 ,F4

ID: F9
TITLE: edit or view the user profile .
DESC: the user Accesses it by navigating to the "Settings" section and selecting "Edit my profile." Then the user can edit his: (account profile picture -Username - Email - Phone number – or Password)

RAT: in order to view and allow the user to edit his profile information in the mobile app
DEP: F8

ID: F10
TITLE: the user credit card information (one of the payment methods) .
DESC: the user Access it by navigating to the "Settings" section and selecting "credit card info" Then the user can enter his credit card information: (card name, card number, expiry date, CVV) to add a new card or view his other credit card and set a default card and if he wants he can delete it .
RAT: in order to add or delete or view the user credit card.
DEP: F8

ID: F11
TITLE: the user location .
DESC: The user Accesses it by navigating to the "Settings" section and selecting "personal location " Then the user can enter his location information: (location name, country, city, District, street, building number or the apartment number) manually or via GPS.
RAT: in order to add the user location .
DEP: F8

ID: F12
TITLE: the user parties.
DESC: the user Access it by navigating to the "Settings" section and selecting "my parties " Then the user can view his old or recent parties with details like: (party name, date, place, picture for rented spaces , and the condition of the party(complete, or in progress).
RAT: in order to view the user's old or recent parties .
DEP: F8

3.2.2 < User Class 2 - The Investor >

ID: F13
TITLE: Download the mobile application
DESC: The investor should download the mobile application, it should be available to download by the phone's application store or an equivalent service. The investor should be able to download the application for free.
RAT: In order for an investor to download the mobile application.
DEP: None

ID: F14
TITLE: Download and notify investor of new releases
DESC: The investor needs to manually look for new updates of the software release. In the same manner that you would download a mobile application, the investor should download the latest version from his phone.
RAT: In order for an investor to download a new/updated release.
DEP: F13

ID: F15
TITLE: investor signing up (registration)
DESC: After downloading the mobile application, the investor should be able to sign up using the app. The investor needs to provide his name, email, password and verifying it, and phone number. Also, the investor must check the investor account box and agree with the terms & conditions and privacy policy.
RAT: In order for an investor to sign up on the mobile application.
DEP: F13

ID: F16
TITLE: investor log-in
DESC: After signing up, the investor should be able to access the mobile application and log in. The phone will store the login details, so the investor is going to be automatically logged in every time he opens the application.
RAT: In order for an investor to log in on the mobile application.
DEP: F13, F15

ID: F17
TITLE: Add space to rent (Button to add space).
DESC: The investor (place owner) can add a space by clicking the Add Space button In the first process, he must add the name of the place and the rental price of the place, and he can add any notes related to this site. On the same first page, more than one photo of the place can be attached. In the second process, he must add the location of the surveyor via the GPS map (on another page), the country, city, district street, and building number. In the third process, an interface appears that confirms that the investor has a previous license on the Shoumos platform so that his request to add his spaces to the application is accepted.
RAT: In order for an investor to add all his private space after going through several steps for approval in the application.
DEP: F13 ,F16

ID: F18
TITLE: Message (continued to settings).
DESC: The investor can communicate with customer service and his clients. He will show \ receive two message boxes on the page, the first from customer service and the second from his clients who rented from his spaces. At the bottom of the page, the investor can delete his messages.
RAT:In order for an investor to communicate with stakeholders in the application.
DEP: F13 ,F16

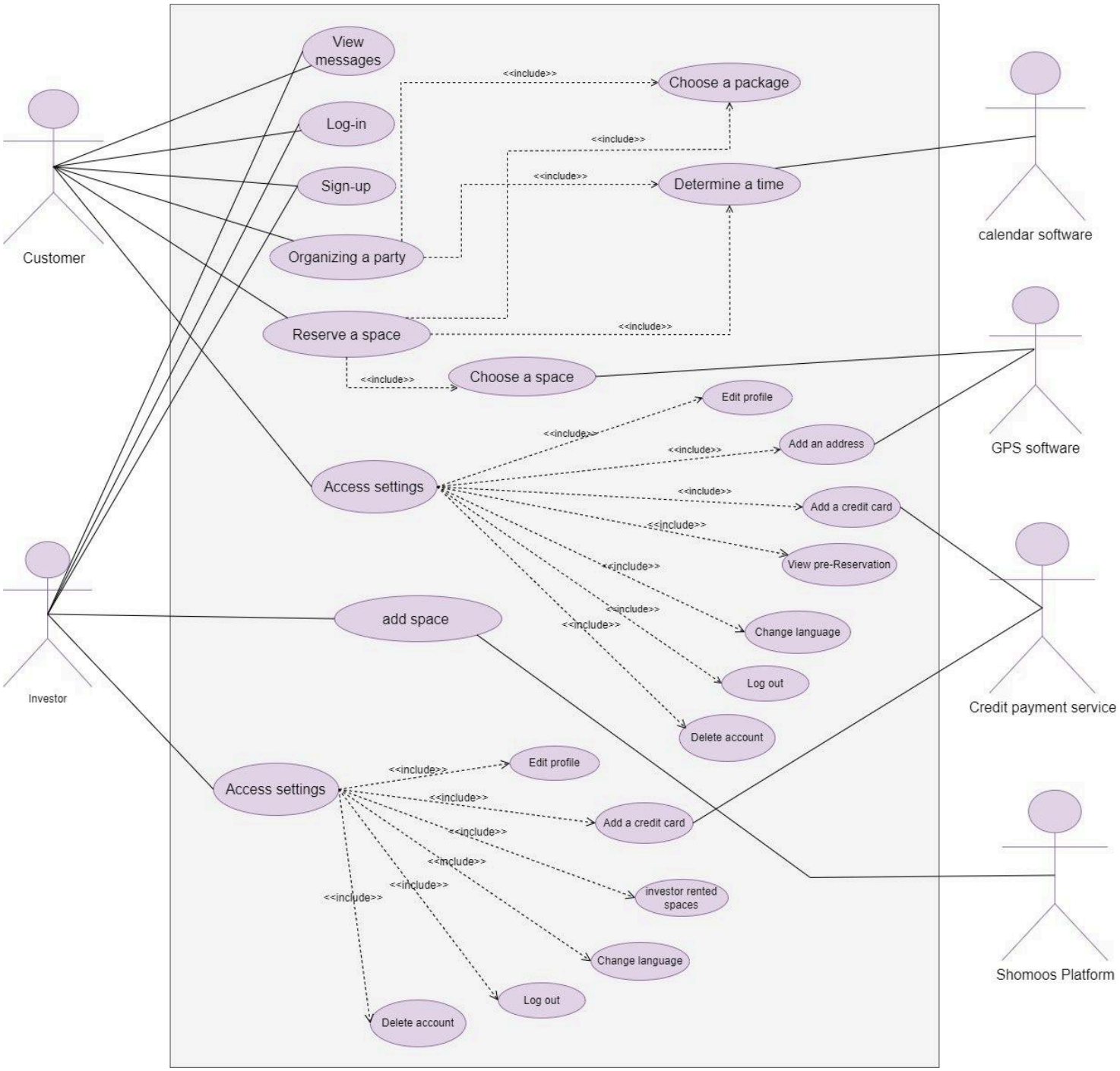
ID: F19
TITLE: The investor sittings.
DESC: The investor must click on the setting icon on the main screen to change some of the account settings, such as changing the language, also the user can log out of his account or delete his account permanently.
RAT: In order the investor can control his account settings.
DEP: F13 ,F16

ID: F20
TITLE: edit or view the investor profile .
DESC: the investor Accesses it by navigating to the "Settings" section and selecting "Edit my profile." Then the investor can edit his: (account profile picture - Username - Email - Phone number – or Password)
RAT: in order to view and allow the investor to edit his profile information in the mobile app
DEP: F19

ID: F21
TITLE: the investor credit card information.
DESC: the investor Access it by navigating to the "Settings" section and selecting "credit card info" Then the investor can enter his credit card information: (card name, card number, expiry date, CVV) to add a new credit card or delete it, or set a default card in order to receive money from his rented spaces
RAT: in order to add or change the investor credit card to receive money .
DEP: F19

ID: F22
TITLE: view and edit the investor rented spaces.
DESC: the investor Access it by navigating to the "Settings" section and selecting "my rented spaces " Then the investor can view all his spaces and if he clicks on one of his spaces the app will transfer the investor to the details of the space and edit them like: (space pic, name, price, comments, or location) also it can view the recent and old customer who rented the space with the date and message them.
RAT: in order to view and edit the investor spaces.
DEP: F19

3.3 Use Case


View messages
Log-in
Sign-up
Organizing a party
Reserve a space
Choose a space
Access settings
add space
Access settings
Choose a package
Determine a time
Edit profile
Add an address
Add a credit card
View pre-Reservation
Change language
Log out
Delete account
Edit profile
Add a credit card
investor rented spaces
Change language
Log out
Delete account
<<include>>
Customer
Investor
calendar software
GPS software
Credit payment service
Shomoos Platform

3.4 Non-Functional Requirements

3.4.1 Performance

Usage of a search feature
ID: N1
TITLE: Usage of a search feature
DESC: The different search options should be evident, simple, and easy to understand.
RAT: For a user to perform a search easily and find the desired spaces for his occasion.
DEP: none

Response time
ID: N2
TAG: ResponseTime
DESC: The fastness of the search and measure the response time.
MUST: No more than 3 seconds 100% of the time.
WISH: No more than 1 second 100% of the time.

System dependability
ID: N3
TAG: SystemDependability
DESC: If the system loses the connection to the Internet or the GPS device or the system gets some strange input, the user should be informed.
MUST: 100% of the time.

3.4.2 Reliabilities.

ID: N4
TAG: SystemReliability
DESC: The system shall provide automated data backup and recovery mechanisms to prevent data loss in case of failures.

3.4.3 Availability

ID: N5 TAG: SystemAvailability
DESC: The availability of the system when it is used (network failing not included).
MUST: More than 98% of the time.
WISH: 100% of the time

. ID: N6
TITLE: Internet Connection
DESC: The application should be connected to the Internet.
RAT: For the application to communicate with the database.
DEP: none

ID: N7
TITLE: GPS Connection
DESC: The application should be connected to the GPS application and indirectly with the server.
RAT: For the application to get the user's location, the map and to calculate the distance; to show him all the available spaces near his area.
DEP: none

3.4.4 Security

ID: N8
TAG: CommunicationSecurity
DESC: Security of the communication between the system and server should be encrypted, so others cannot get the user-name and password, This also includes ensuring the security of payment transactions from any malicious software

ID: N9
TAG: UserCreateAccountSecurity
DESC: The security of creating accounts for users, If a user wants to create an account and the desired username is occupied, the user should be asked to choose a different user name.
MUST: 100% of the time.

3.4.5 Maintainability

ID: N10
TITLE: Application extensibility
DESC: The application should be easy to extend. The code should be written in a way that it favors implementation of new functions.
RAT: For future functions that may be implemented.
DEP: none

3.4.6 Portability

ID: N11
TITLE: Application portability
DESC: The application should be portable with iOS and Android.
RAT: The adaptable platform for the application to run on.
DEP: none

<PartyTime>