

SRS-07

SOFTWARE REQUIREMENT SPECIFICATION
PLACE RESERVATION: House Rent & Apartment

for:

Telkom University's students

Prepared by:

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1. Introduction

1.1 The Purpose of a document writing

The writing of this document is intended to explain the Software Requirements Specification (SKPL) with object-oriented analysis of the software to be made. This document is also used to help make software requirements specifications that will be made to fit the customer's wishes.

This SKPL document is also used as a reference and evaluation material for the software development process. For the Developer, this document is used as a reference in the software development stage so that the software created can be in accordance with the wishes of the client. As for the client, this document can be used to record specifications for software requirements to be built and expectations about the software that the client wants.

1.2 Document Coverage

This software that we made is website based. So, it can be accessed from any platform like a computer tablet and smartphone. This software is made for Telkom University student so they can easily rent a place like apartment and boarding house around campus. The programming language that is used in the making of this software used a programming language of HTML, CSS, JavaScript and PHP

1.3 Definition, Abbreviation, and Acronym

- SKPL
SKPL is an abbreviation of Software Requirements Specification, which contains software specifications to be developed.
- ERD
ERD stands for Entity Relationship Diagram. ERD is a model contains notations and symbols used to explain the relationship between data.
- PSPEC
The specification process explains the contents (what is done by the program code) of each process in the context diagram.
- Login
Login is a process to enter a system. Login in general using a username and password.
- Username
A username is an identity in the form of a series of words used for access an account.
- The password
A password is a password consisting of a series of letters and numbers, used to access an account.
- Use Case Diagrams
Use Case Diagram is a diagram used to describe system functionality.
- Use Case Scenario
Use Case Scenario is a process that contains an explanation of the course of a system of.
- Class Diagram
Class Diagram is a diagram that contains attributes and methods to run a system.
- Flow map
Flow map is a combination of map and flowchart which shows the flow data.

1.4 References

This document is inspired from an application like Airbnb and Traveloka. The reference that is used in the making of this document is:

- Template Spesifikasi Kebutuhan Perangkat Lunak (SKPL), Informatics major, Telkom University.
- Modul Practicum APPL, IF LAB, School of Computing, Telkom University.

2. Software Global description

2.1 Software Statement of Objective

Software that we made is a software for renting an apartment and boarding house. This software is website based, so it can be makes it easy for users to access this software. Making this software is a request from telkom university students and college students to facilitate students in carrying out the home or apartment rental. Thus, this is a product that makes it easy for students to find a place to live.

2.2 Perspective and Software Function

Place Reservation for Telkom Student software is a software that will be used by the students as parties who want to rent apartments and boarding houses. This software will make it easier for Telkom University students to find a place to stay that meets the criteria they need just by using an application. User Profile and Characteristics.

2.3 User Characteristics and Profile

User Category	Task
Owner	1. Register Account 2. Login 3. Edit Profile 4. Upload Place 5. Edit Place 6. Delete Place
Customer	1. Register Account 2. Login 3. Edit Profile 4. Order Place 5. Cancel Place 6. Payment
Admin	1. Manage the Accounts 2. Manage Place 3. Manage Order 4. Manage Payment

2.4 Operating Environment

These are the following of minimum hardware and software specifications needed to be able to run the application:

➤ Hardware includes:

- Memory : 1024MB RAM or more
- Processor : Intel Dual Core/Compatible or more

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- Display : Resolution of 800x600
- Additional :
 - Ethernet LAN Adapter / Wi-Fi adapter to connect the internet
 - Compatible mouse and keyboard

➤ Software includes:

- Operating System:
 - Windows 7 Home Basic or more
 - Mac OS X Lion 10.7 or more
 - Ubuntu 14.04 LTS (Trusty Tahr) or more
- Google Chrome Browser version 4+ / Mozilla Firefox version 3.5+ / Opera version 10.5+ / Safari version 4+

2.5 System/Software Boundaries

The boundary and implementation that used to develop this software such as:

- The software can handle the traffic of owners uploading the place and edit their place specification
- User must connect to the internet to access this web application
- User can login if users had created their account
- User can register as owner or customer
- Customer can make a feedback/review about the place
- Customer can do the transaction to rent the place
- Customer and authors can edit their profile
- Owner can get paid from their works
- Admin can filter the owner's place and customers review
- Admin can manage all user accounts

2.6 Assumption and Dependencies

Assumption:

- Place Reservation for Telkom Student can be accessed from anywhere and connected for the internet network.
- The customer and the owner must have an account and login first so that they can get into the system.
- The admin must login using the admin account that is determined by the system so that admin can get into the system.

Dependencies:

- Customer and owner must login first if they want to use the system.

3. Software Detailed Description

3.1 Requirement Description

3.1.1 *Functional Requirements*

No.	Requirement Code	Function	Description
1.	FR-01	Register Account	This function is used by user to register their identity and to access the application
2.	FR-02	Login	This function is used by user to log in to the application
3.	FR-03	Manage place	This function is used by user (owner) to manage the place to application
4.	FR- 04	Order place	This function is used by the user (customer) to order the place
5.	FR-05	Cancel order	This function is used by the user (customer) to cancel the order
6.	FR-06	Payment	This function is used by the user(customer) to see their pay the place
7.	FR-07	Manage Account	This function is used by user (admin) to manage the account to application
8.	FR-07	Manage Order	This function is used by user (admin) to manage the Order to application

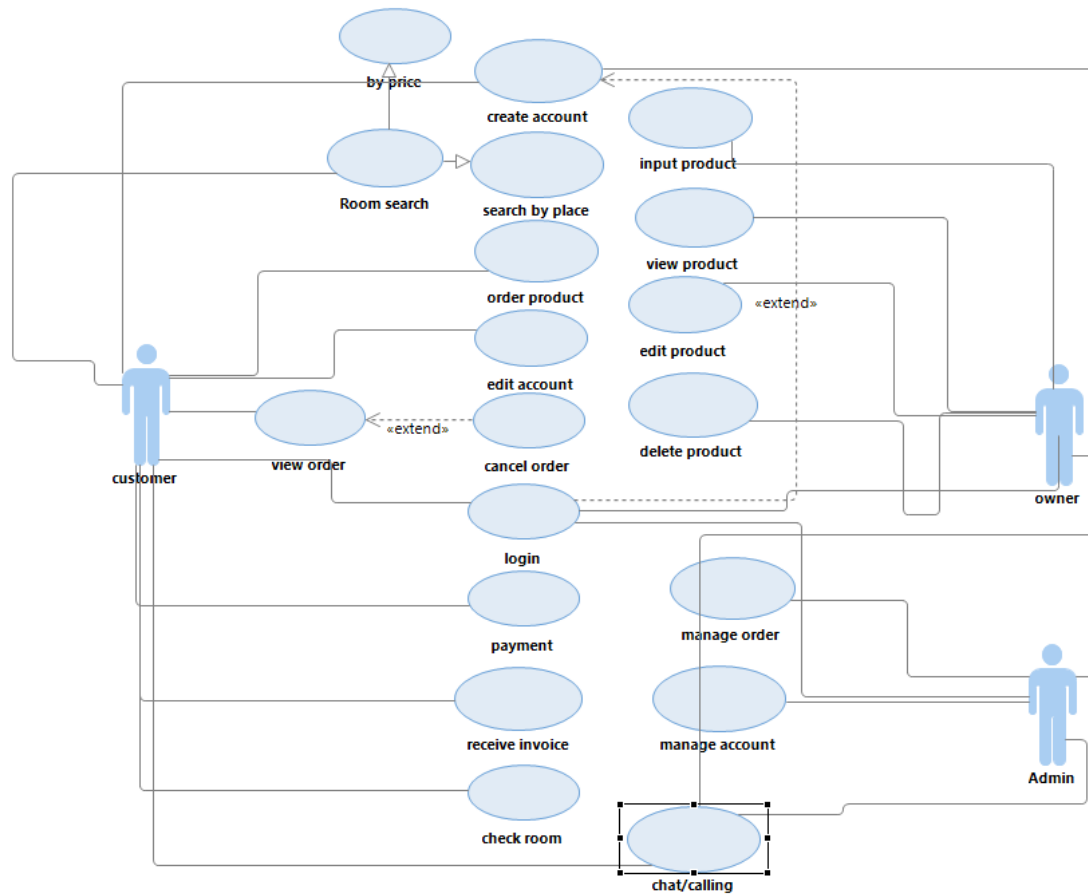
3.1.2 *Non-Functional Requirements*

No.	Quality	Requirement Code	Description
1.	Chatting Requirement	NFR-01	The customer able to communicate the user within working hours
2.	Payment Requirement	NFR-02	The Payment process has a limited time (24 hours)
3.	External Requirement	NFR-03	The system shall be implementing Law of the Republic Indonesia No.11 of 2008 about

			electronic transactions and information.
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3.2 Analytical Modelling

3.2.1 Usecase Diagram



3.2.1.1 Usecase Scenario #1

Use Case Name	Create an Account	
Description	This function is used by a user to create account	
Pre-Condition	User not yet have an account and want to create an account	
Post-Condition	User already have an account	
Main Scenario		
	Actor	System
	1. Open website Rent Reservation	
		2. Display the website homepage

	3. Click the register button	
		4. Display the input form
	5. Input the user data	
		6. System check the username that already input by a user that whether in database or not 7. System will register the user data to the database and system will display the message "Account already created"
Exceptional Scenario (Alternative flow)	Found the same username in a database	
	Actor	System
		1. System display the message "Username already used" 2. Display again input form with empty form

3.2.1.2 Usecase Scenario #2

Use Case Name	Login	
Description	This function is used to login to the web home page	
Pre-condition	User have not login yet	
Post-condition	User have login into the home page.	
Main Scenario		
	Actor	System
	1. Open the website/app	
		2. Display the well come page that have a login form and a sign-up button.
	3. Fill data login 4. Press the log in button	
		5. System verify the account the account (email, username and password). 6. Login into the home page
Exceptional Scenario (Alternative flow)	If user/email/password is unavailable in account database, it will back to step 2. If available, then login into the home page.	

	Actor	System
		<ol style="list-style-type: none"> 1. Send a message notification 2. Display the home page.

3.2.1.3 Usecase Scenario #3

Use Case Name	Edit account	
Description	This function is used for editing account data	
Pre-condition	The previous data of the user not change yet.	
Post-condition	User's data have changed to the new one.	
Main Scenario		
	Actor	System
	1. User click menu bar	
		2. Display the categories in the menu
	3. select edit account	
		4. show the data account. 5. show the editable data (except username)
	6. Select the data to edit	
		7. display form to change.
	8. change data 9. click save button	
Exceptional Scenario (Alternative flow)	To change password, you user needs to enter the old valid password and will verify by the system and allow user to change password.	
	Actor	System
		<ol style="list-style-type: none"> 1. Send a message notification 2. Display the user data account.

3.2.1.4 Usecase Scenario #4

Use Case Name	Search place	
Description	This function is used by a user to search an available place	
Pre-Condition	Search bar is empty and the system not yet display the place list	
Post-Condition	Search bar is filled and display the available place/room for rent	
Main Scenario		
	Actor	System
	<ol style="list-style-type: none"> 1. Click the search bar 2. Input the place name or place address 3. Click the search button 	
		8. Display the place list

Exceptional Scenario (Alternative flow)	Keyword is not match with the place database	
	Actor	System
		1. Display the message “the place that you entered is not exist”

3.2.1.5 Usecase Scenario #5

Use Case Name	Order place	
Description	This function is used by the customer to purchase a house	
Pre-condition	User haven't made some order yet.	
Post-condition	The house has ordered by the user	
Main Scenario		
	Actor	System
	1. User select the house	
		2. Display the data of the house (address, type, price etc.) 3. Display the purchase button
	4. Click the purchase button	
		5. Send notification to the owner
	6. Owner confirms	
		7. Send the confirmation the customer. 8. Display the payment
	9. Customer does the payment	
		10. Display a successful order message

3.2.1.6 Usecase Scenario #6

Use Case Name	View Order	
Description	This function used by the customer to check the process of the order that has been made.	
Pre-condition	User haven't checked the order	
Post-condition	The order has checked and some action have done by the user	
Main Scenario		
	Actor	System
	1. User click the menu bar	
		2. Display the categories in the menu
	3. Select the View order bar	

		4. Show the order detail 5. Display the confirmed order 6. Cancel order button 7. Done button to finish the view
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3.2.1.7 Usecase Scenario #7

Use Case Name	Cancel Order	
Description	This function is used by the customer to cancel the ordered places.	
Pre-condition	User haven't canceled an order yet.	
Post-condition	The order has been canceled and removed	
Main Scenario		
	Actor	System
	1. User select view order bar	
		2. Show the order detail 3. Display the confirmed order 4. Cancel order button 5. Done button to finish the view
	6. Select the place 7. Click cancel order button	
		8. Display confirmation box with the text "are you sure want to cancel the order" 9. Yes/ no button
	11. Click yes	
		12. Remove place from order.

3.2.1.8 Usecase Scenario #8

Use Case Name	Payment	
Description	This function is used by the customer to pay the ordered places.	
Pre-condition	User haven't made a payment to an order yet.	
Post-condition	The order the transaction is done.	
Main Scenario		
	Actor	System
	1. Select the confirmed order	
		2. Display the payment detail 3. Display the payment option

		(via cash or bank)
	4. Select the payment option 5. Do the payment	
		6. Display the payment success 7. Send the notification the users

3.2.1.9 Usecase Scenario #9

Use Case Name	Input place	
Description	This function is used by the owner to input their place.	
Pre-condition	The place hasn't input yet	
Post-condition	The Place have register in the place database	
Main Scenario		
	Actor	System
	1. Open the menu bar	
		2. Display the categories in the menu
	3. Select insert Place bar	
		4. Display insert place form
	5. Fill the place form 6. Input the place	
		7. Verify the place 8. Send notification

3.2.1.10 Usecase Scenario #10

Use Case Name	View Place	
Description	This function is used by the owner to view their place	
Pre-condition	The place in database doesn't show yet.	
Post-condition	Owner has opened the place register in the database.	
Main Scenario		
	Actor	System
	1. Open the menu bar	
		2. Display the categories in the menu
	3. Select view a place bar	
		4. Display the detail of all place that registered in the database.

3.2.1.11 Usecase Scenario #11

Use Case Name	Edit place	
Description	This function is used by the owner to edit their place.	
Pre-condition	The place is registered in the database	
Post-condition	The register place has edited	
Main Scenario		
	Actor	System
	1. Open the menu bar	
		2. Display the categories in the menu
	3. Select Edit Place bar	
		4. Display the details of all the place that registered in database
	5. Click in the place that want to edit	
		6. Display the place form with the old data.
	7. Edit the data 8. Click save	
		9. Notification message “saved”

3.2.1.12 Usecase Scenario #12

Use Case Name	Delete Place	
Description	This function is used by the owner to delete their place.	
Pre-condition	The place is still in the place database	
Post-condition	The Place have deleted from the place database	
Main Scenario		
	Actor	System
	1. Open the menu bar	
		2. Display the categories in the menu
	3. Select delete a place bar	
		4. Display the details of all the place that registered in database
	5. Click the place that want to delate 6. Delete place	

		7. Display confirmation box with the text “are you sure want to cancel the order” 8. Yes/ no button
	9. Click yes	
		10. Send notification

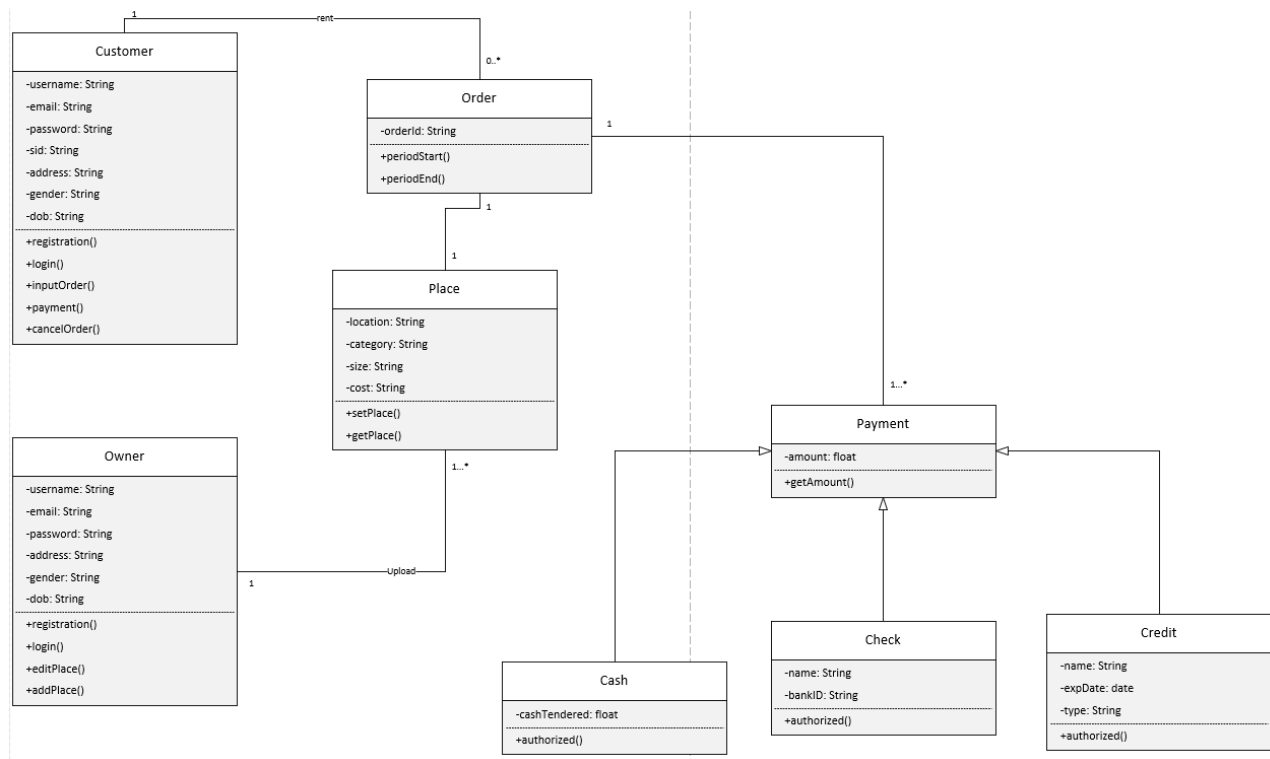
3.2.1.13 Usecase Scenario #13

Use Case Name	Manage account	
Description	This function is used by the admin to manage their place.	
Pre-condition	There is at least one account in the account database	
Post-condition	The account is modified and updated to the database	
Main Scenario		
	Actor	System
	1. Open the admin menu 2. Select manage account	
		3. Display the account list
	4. Select the account 5. Click an edit/delete button	
		6. Account list updated

3.2.1.14 Usecase Scenario #14

Use Case Name	Manage order	
Description	This function is used by the admin to manage their order.	
Pre-condition	There is at least one account in the account database	
Post-condition	The account is modified and updated to the database	
Main Scenario		
	Actor	System
	1. Open the admin menu 2. Select manage order	
		3. Display the order list
	4. Select the order 5. Click an edit/delete button	
		6. Order list updated

3.2.2 Class Diagram



4. External Interface Requirement

4.1 User Interfaces

Place Reservation for Telkom Student use a web interface, and student can access it from a computer, tablet and smartphone that has a connection to the internet. The interface from Place Reservation for Telkom Student covers creating account, search place for reservation, change account, reserve place, show places to rent, cancel an order, pay a reservation order, check rooms, input places to rent, view Places to rent, change places to change, delete places to rent, manage orders, and manage accounts.

- Create an account
Students who do not have an account press the create account button on the website to create a new account so they can enter the system with condition that the username of each student is different.
- Account login
Students who already have an account can log in by pressing the login button on the website as well as the owner.
- Search for a place to rent
Students who have entered the homepage can find a place to rent by filling in the search bar and choosing a place to rent
- Change account
Students who have entered homepage can change their account profile data by pressing their account button “change account”
- Renting a place
Students can rent a place by pressing the rent button after choosing a place to rent
- See the place to rent
Students can see the place to be rented after choosing a place to rent
- Cancel order
Students can cancel the order to be ordered by pressing the cancel order button
- Pay a place
Students who have chosen and will rent are required to pay for the place to be rented by pressing the pay button
- Check the rooms
Students can check the rooms shown when choosing a place to rent
- Input the place to be rented
The owner can add a place for rent
- See the place to rent
The owner will be shown a photo of the place he is going to rent
- Change the place to rent
Owners can change photos and profiles of places to rent
- Remove the place to rent
The owner can delete the place that will not be rented out again on the website
- Manage orders
Admin can manage the customer order
- Manage accounts
Admins can delete and view accounts when something is needed

4.2 Hardware Interfaces

To access this website, users need hardware such as computers or laptops that are equipped with internet connections to access them. Here are some of the hardware that might be needed to access the online application that we make:

- Memory 1024 MB RAM or more.
- Processor Intel Dual Core/Compactible or higher.
- Ethernet LAN Adapter / Wi-Fi to connect to internet.
- Monitor size (display) 800 x 600.
- Mouse and keyboard compatible.

For web access, it is recommended to fulfill the minimum requirements above, if the hardware owned is more than the minimum requirements above, then it is better for the performance process.

4.3 Software Interfaces

Place Reservation for Telkom Student serve to facilitate an overseas telkom student after entering the second tier because they are no longer living in a dormitory and to facilitate a student activity unit for the organization interest to be simpler and more efficient. This app that will be made and developed using a programming language such as HTML, CSS, JavaScript and PHP that can run in a web browser

4.4 Communication Interfaces

Place Reservation for Telkom Student is a system that connected using internet network based on Transmission Control Protocol/Internet Protocol (TCP/IP). This system also uses a Hypertext Transfer Protocol (HTTP) as a means of regulating communication between user and server.

5. Other Requirements

5.1 Performance Requirements

This part is explaining about the performance requirements from the system. The system application that we develop takes less than 1 minute to access every page on it. To search the data that derived, this system needed time to response approximately 2 minute(s). All of the performance will be achieved if the hardware requirements are more than minimum requirements that we explain before.

5.2 Safety Requirements

This part is explaining about the safety requirements of the system. We built this safety system that is suitable for the user requirements. Every admin has the responsibility to secure the system to make it functionable and fast response to make sure that user can access it thoroughly and functionally.

5.3 Security Requirements

This part is explaining about the security requirements of the system. This security on this system is protected by username and password that use encryption technique to make sure that the user account can be access only from the user itself and the admin that responsible to protect the user account. For every login, it will be track due the malicious move of the user.

5.4 Quality Software Requirements

This part is explaining about the boundary in the development of the system, such as:

- This system is developed using programming language such as HTML, CSS, JavaScript and PHP
- This system is developed using MySQL database
- The server that used in this system is using Windows Operating System.

5.5 Usage Requirements

This part is explaining about the usage requirement of the system, such as:

- User Interface on this system from the client's side in this form of website pages that can be accessed through Windows OS, Mac OS, or Ubuntu OS by using web browser such as Google Chrome, Mozilla Firefox, Opera and etc.
- Language used in this system is Bahasa and English. Because in InWe use Bahasa for non-International Student

Attachment A: Difficult Wordlist

- SKPL
SKPL is an abbreviation of Software Requirements Specification, which contains software specifications to be developed.
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Use Case Diagram is a diagram used to describe system functionality.
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Use Case Scenario is a process that contains an explanation of the course of a system of.
- Class Diagram
Class Diagram is a diagram that contains attributes and methods to run a system.
- Flow map
Flow map is a combination of map and flowchart which shows the flow data.

Attachment B: Analysis Models

Place Reservation for Telkom Student software is a software that will be used by the students as parties who want to rent apartments and boarding houses. This software will make it easier for Telkom University students to find a place to stay that meets the criteria they need just by using an application.

There are 5 main business process that the student conducted:

- Create account process
- Login process
- Search a place to rent process
- Rent the place process
- Payment process
- There are 3 main business process that the owner conducted:
- Create account process
- Login process
- Input a place to rent process

There are 3 main business process that the owner conducted:

- Login process
- Manage order process
- Manage account process

Flow Chart

