

Software Requirements Specification Document



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CCSW-227 Project (Stage II)

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1 Introduction

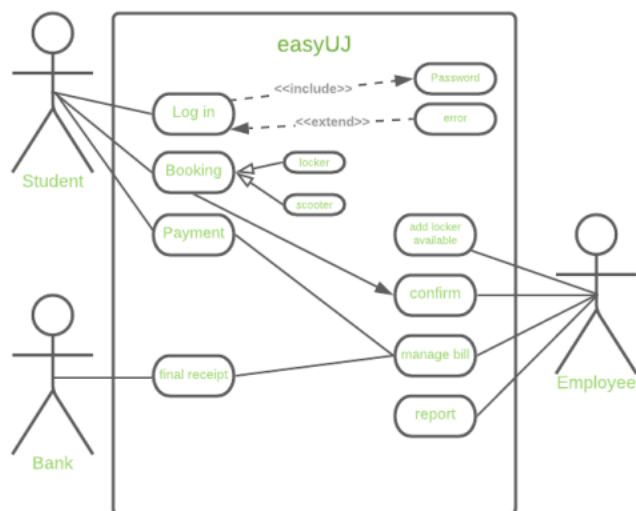
1.1 System Overview

This project is a program that facilitates the process of booking a locker or scooter for the student or responsible employee so that it allows the possibility of knowing the vacancy and availability. It also facilitates the selection of the appropriate payment process for the student.

1.2 Operating Environment

The product shall operate using both Windows XP and mobile device (Android and IOS).

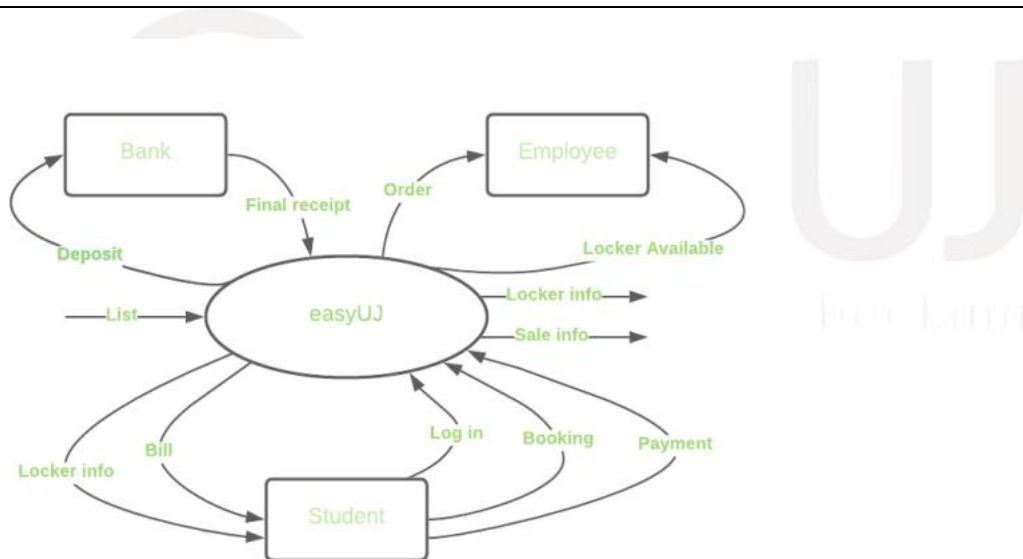
1.3 Conceptual Model



2 Functional Requirements

- FR 1. The system shall allow to the all actors to gain the system throw supposed user name and password. The System must send a confirmation email whenever an activity is booked.
- FR 2. The password must be included in the login process.
- FR 3. The system shall identify the locker or scooter to the student to allow her/him to choose one of the available lockers or scooters.
- FR 4. The system shall allow employee to confirm if the locker or scooter is available.
- FR 5. The system shall allow the student to choose the suitable payment method.
- FR 6. The system shall allow managing the bill through the bank and employee to finally display it to the student.
- FR 7. The system shall allow the bank to enter the final receipt.
- FR 8. The system shall allow the employee to display the available lockers/scooters.
- FR 9. The system shall allow the employee to submit a review with statics about the number of lockers booked per year.

2.1 Product Services

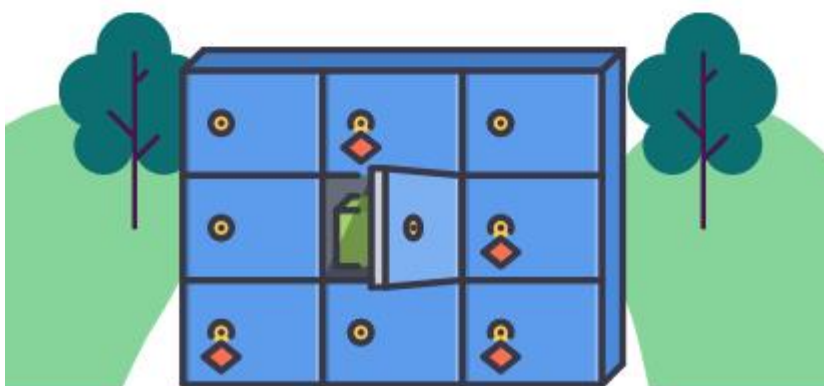


2.2 User Interface Specifications

- 1- This is the home page for the application in which a user can select to login.




Log In




- 2- This is the log in page, the users can log in to their accounts by entering their email and password.





 name@mail.com

 *****

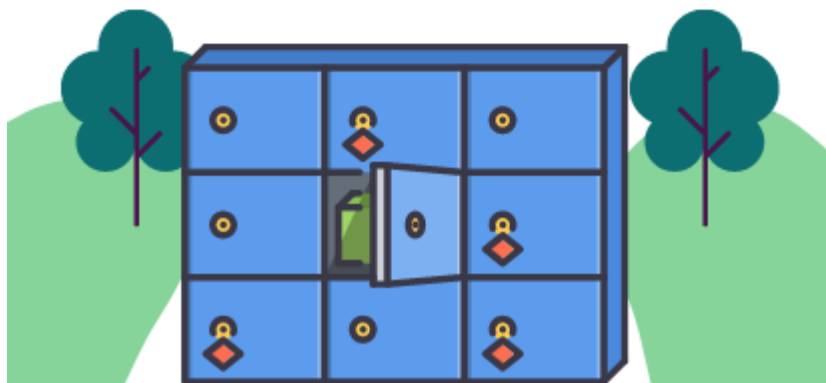
Log In

3- after the user logs in successfully this page will appear where she/he can select to book.





Book



- 4- This is the booking page for the lockers. The user must enter the building, floor and locker number.





Enter Building Number:

Building Num

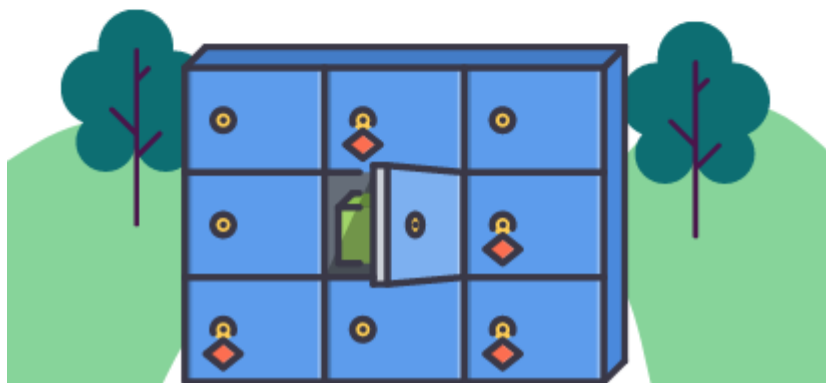
Enter Floor Number:

Floor Num

Enter Locker Number:

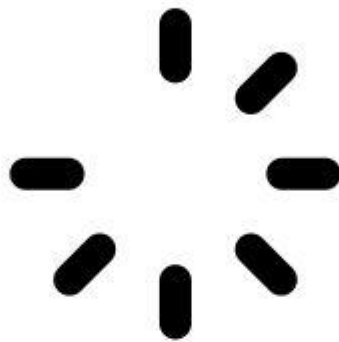
Locker Num

Continue



5- This is the waiting page for checking the locker availability.





Checking for locker availability,
please wait for seconds....



6- after entering the locker's info. this confirmation page will appear shortly after the loading page in which the user can proceed to checkout or cancel the booking

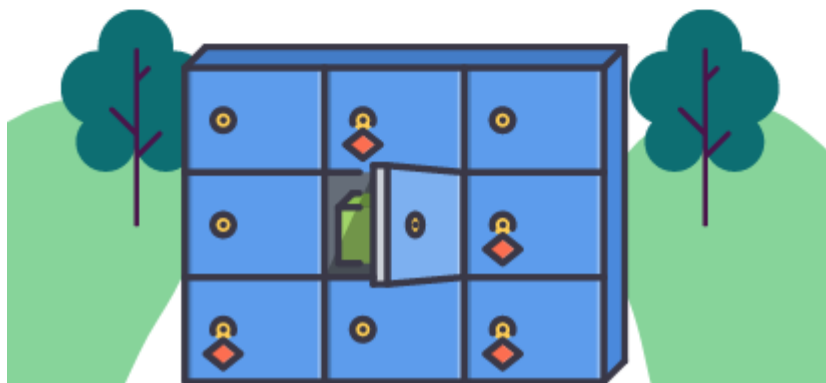




Locker available!

Proceed to
checkout

Cancel



7- after selecting the “proceed to checkout” option, the user will be transferred to this page where she/he can choose from a list of payment methods.





Select Payment method



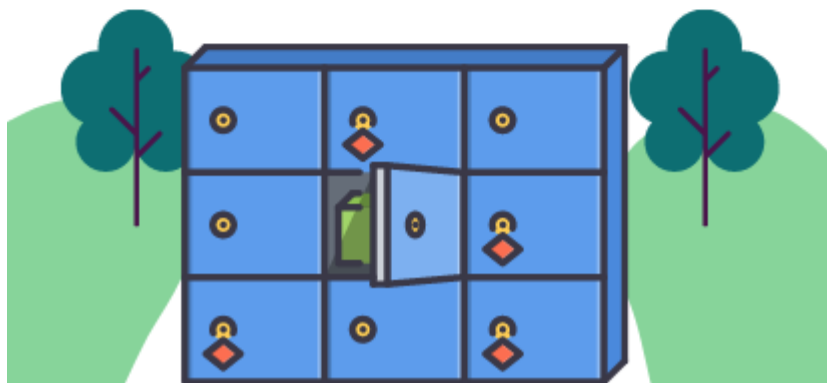
Credit Card



Apple pay



Cash

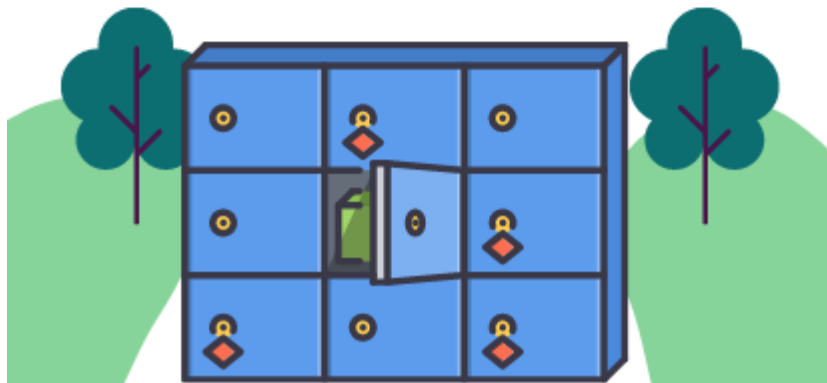


8- if the user completes the payment process successfully a confirmation page will appear indicating that the locker is successfully booked.





Congratulations!
Locker booked successfully



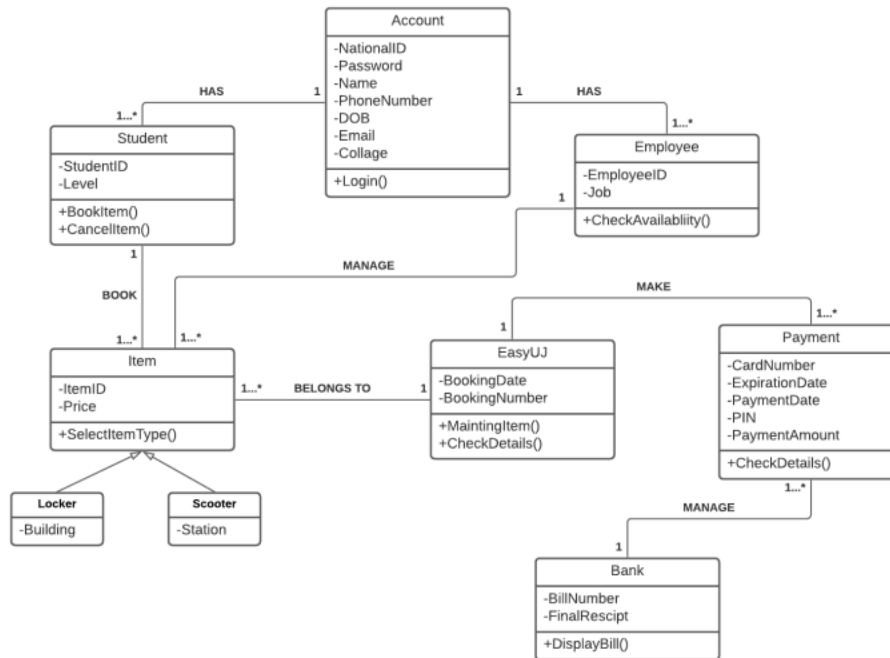
9- This page will appear if the user enters an already booked locker.



Sorry, locker unavailable



2.3 External Interfaces and Database Requirements



2.4 Error Handling

- If the user takes too long to make the booking the page will reload and the user will continue from where he left off.
- The user can contact the IT manager if any problem appeared.
- If a mistake is made in a reservation the user can always cancel.

2.5 Foreseeable Functional Changes and Enhancements

- The System shall send a message to the user's phone number to inform them if new lockers/scooters are available.

3 Non-Functional Requirements

- NFR 1. The system must provide certain user interface functions according to the user's permission.
- NFR 2. The system should provide a user-friendly interface.
- NFR 3. User interface should be like GUI.
- NFR 4. The system is implemented in a hardware-independent manner and should not depend on any particular hardware interfaces.
- NFR 5. The system must provide a login page.
- NFR 6. The system allows the user to access only the services that he/she is authorized to access.
- NFR 7. The system allows only the authorized user to make, edit and delete.
- NFR 8. The easyUJ program system will communicate with the database of the University of Jeddah system to extract the required student information with which the student registered in the program, including the user name and university ID number to verify the student's identity.

3.1 Performance Requirements

Response time: Each page must load within 2 seconds.

Security: The System should have an Authentication and Authorization System (AAS) for logins.

Availability The application must be available to SA user's 100% of the time every day of the year.

Reliability: System's Service Level Agreement (SLA) level should be of 98%.

Portability: The application must support devices running on IOS and android.

Usability: The application's interface has to be user-friendly and easy to use.

3.2 User Documentation and Other User Aids

-description document that contains a detailed overview of the app.

3.3 Development Requirements

- When a password is changed or reset, an email should be automatically sent to the owner of that user account.
- The users can cancel their booking.

3.4 Foreseeable Non-Functional Changes

- The System shall operate on old versions of IOS and android devices.
- The System must display the search results within 3 seconds.

4 Remarks and Guidelines for Later Lifecycle Phases

During the development of the app, we ran across a few obstacles, including delays in deliverables due to budget constraints and improper planning that resulted in differences in requirements and final work.



5 Glossary and Index

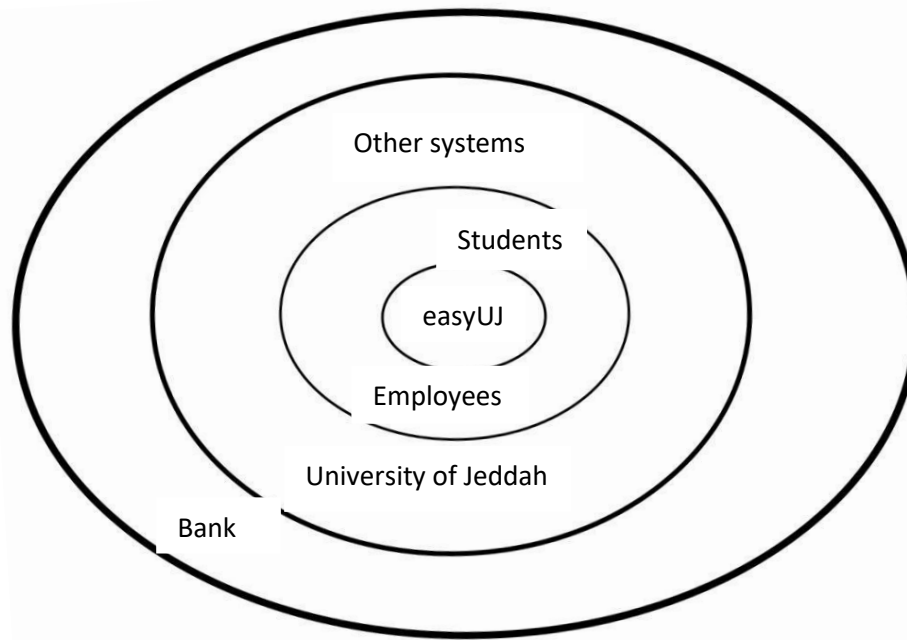
Glossary

Term	Definition
Booking	Verb stands for reservation\buy.
User	It represent the person who uses the application.
Student ID	Student Identification is 8 numbers that verifying somebody's identity as a university student.



Task 1: Stakeholder Identification

Stakeholders Map



Interviewing the stakeholders

Stakeholders	Requirements elicitation technique	Justification
Interrogative conversations with an Managers	Interview	
Interrogative conversations with a student	Prototype	stakeholders have only a vague understanding of the system
Interrogative conversations with Employee	Observations / Site visits	Observation of stakeholders in their environment and identify fundamental knowledge that nobody will express (implicit knowledge)

Task 2: Elicitation techniques

2.1. Interrogative questions with Managers:

Q1: What is the problem with the current system?

Q2: what do you want in this system exactly?

Q3: What modules you would like to add in this system?

Q4: What modules you would like to change in this system?

Q5: what kinds of features do you think would attract you to use this system?

Q6: Who would be the users of Adventures Booking System?

2.2 Prototyping and sketching

1- This is the home page for the application in which a user can select to login.

easyuj

Log In

I Con

- 2- This is the log in page, the users can log in to their accounts by entering their email and password.

easyuj

email
password

Log In

3- after the user logs in successfully this page will appear where she/he can select to book.

easyuj

I Con

book

I Con

- 4- This is the booking page for the lockers. The user must enter the building, floor and locker number.

easyuj

building num

Floor num

locker num

continue

I Con

5- This is the waiting page for checking the locker availability.

easy

I Con

checking for
availability

I Con

6- after entering the locker's info. this confirmation page will appear shortly after the loading page in which the user can proceed to checkout or cancel the booking.

easyu

I Con

check out

cancel

I Con

7- after selecting the “proceed to checkout” option, the user will be transferred to this page where she/he can choose from a list of payment methods.

easy

select payment method

credit card

apple pay

cash

I con

8- if the user completes the payment process successfully a confirmation page will appear indicating that the locker is successfully booked.

easyu

I Con

locker booked

Successfully

I Con

9- this page will appear if the user enters an already booked locker.

easy

I Con

locker unavailable

I Con

Task 3: Creativity Techniques

Creativity techniques can be used during requirements elicitation to “generate” ideas & requirements

Creativity techniques:

- Brainstorming
- Creativity Workshop
- Combining ideas
- Walkthroughs
- Viewpoints
- Product Box

Requirement Shell: Snow Cards

Requirement #: 5

Requirement Type:
Functional requirement

Event/BUC/PUC #: 1

Description: The system shall allow the bank to enter the final receipt

Rationale: So the user can view receipt details

Originator:

Fit Criterion: The final receipt should be available to the user within 3-4 minutes

Customer Satisfaction: 3

Customer Dissatisfaction: 5

Priority: High

Conflicts: None

Supporting Materials:

History: Created May 5, 2022

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Requirement #: 1

Requirement Type:
Functional requirement

Event/BUC/PUC #: 1

Description:

The system shall identify the locker to the student to allow her/him to choose one of the available lockers

Rationale:

when the user types in a specific locker the system needs to identify if said locker is available or not

Originator:

Fit Criterion: The user will be updated if a locker is available or not within 1-2 mins

Customer Satisfaction: 5

Customer Dissatisfaction: 5

Priority: High

Conflicts: None

Supporting Materials:

History: Created May 5, 2022

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Requirement #: 3 Requirement Type: Event/BUC/PUC #: 2
Functional requirement

Description:

The system shall allow the student to choose the suitable payment method.

Rationale:

Makes the payment easier for the students

Originator:

Fit Criterion:

The system sends the bill to the employee.

Customer Satisfaction: 5

Customer Dissatisfaction: 5

Priority: High

Conflicts: None

Supporting Materials:

History: Created May 5, 2022

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Requirement #: 6 Requirement Type: Event/BUC/PUC #: 3
Functional requirement

Description:

The system shall allow the employee to display the available lockers/scooters

Rationale:

So the employee can view and edit lockers/scooters' availability

Originator:

Fit Criterion:

See the lockers/scooters

Customer Satisfaction: 5

Customer Dissatisfaction: 5

Priority: High

Conflicts: None

Supporting Materials:

History: Created May 5, 2022

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Reqt #	Reqt Type	Description	Rationale	Fit Criterion	Other related PUCs
0001	Functional	The system shall identify the locker to the student to allow her/him to choose one of the available lockers.	When the user types in a specific locker the system needs to identify if said locker is available or not	The user will be updated if a locker is available within 1-2 minutes	
0002	Functional	The system shall allow employee to confirm if the locker or scooter is available.	For the locker/scooter to be booked successfully	The student gets a confirmation message	
0003	Functional	The system shall allow the user to choose the preferred payment method	Makes the payment easier for students	The system sends the bill to the employee	
0004	Functional	The system shall allow managing the bill through the bank and employee to finally display it to the student.	In order to avoid payment issues	The student gets bill details	
0005	Functional	The system shall allow the bank to enter the final receipt	To allow the user to view receipt details	The final receipt should be available to the user within 3-4 minutes	
0006	Functional	The system shall allow the employee to display the available lockers/scooters.	So the employee can view and edit lockers/scooters' availability	See the lockers/scooters	
0007	Functional	The system shall allow the employee to submit a review with statics about the number of lockers booked per year	For future locker bookers to view	The user can view said statistics	
0008	Functional	The system will help to reach the authorized students	In order to fully complete the booking process system must ensure that the student is authorized from the university to book a locker	If the student isn't authorized to book, then an error message will appear preventing her/him from	
0009	Functional	Employees can enter data for the availability of lockers or scooters and enter the approved requests	For system to be periodically updated, and requests finish processing quickly	The students should receive their request approval response within 1-2 minutes.	

0010	Non-Functional	The system should provide a user-friendly interface	To provide a system that is easy for all users	New users shall be able to book a locker /scooter, make payment and cancel a booking within 5 minutes of their first attempt at using the product.	
0011	Non-Functional	The system should communicate with the database of the University of Jeddah system to extract the required student information with which the student registered in the program, including the username and university ID number	In order to verify the student's identity	The system should allow only the students with student ID numbers that match the IDs in the university of Jeddah database to login successfully.	
0012	Non-Functional	The system shall allow the user to access only the services that he/she is authorized to access	Some services are only accessed by employees without students	The insertion of lockers/scooters, and the approval of requests, none shall be from other than category A admin logins.	
0013	Non-Functional	The system shall allow only the authorized users to make, edit and delete.	Because not all users are permitted to apply these functions	The booking and cancellation of lockers/scooters, none shall be from other than category A student logins.	