

Smart Laundry Room

The future of Laundry



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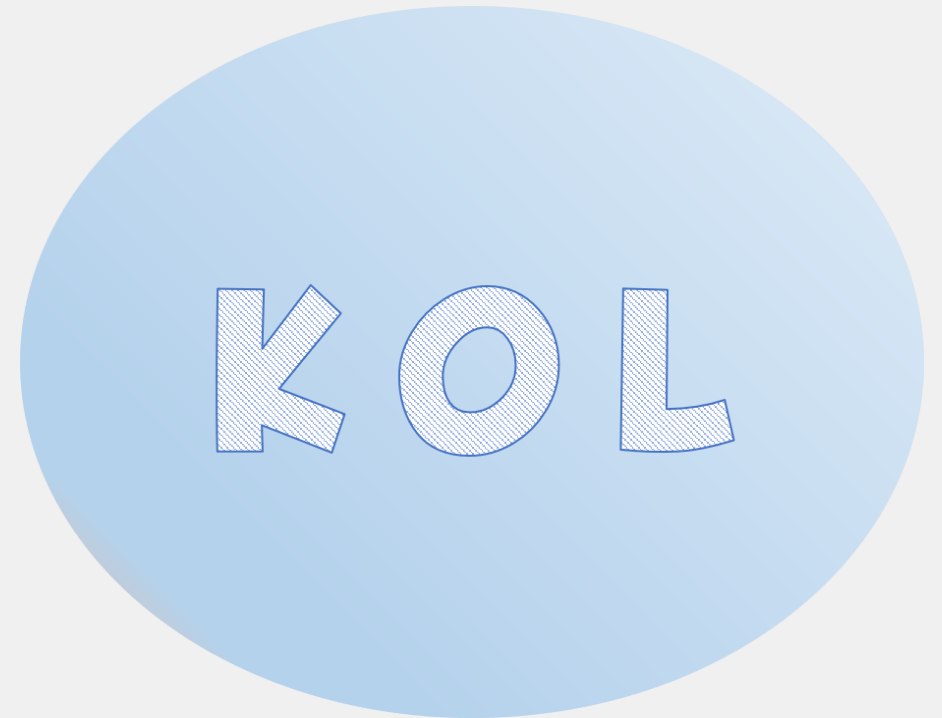
- 01 From the last presentation
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01

From the last presentation...

Summary *Business story line*

- 01** | The company is called KOL
- 02** | Small size company with three people
- 03** | Objective is improving the quality of life
- 04** | Currently working on Smart Laundry Room



Summary *Problem definition*

- 01** | Performance: Excessive efforts required - not user-friendly
- 02** | Information and data: Lack of information on machine-availability
- 03** | Economics: Huge intangible costs
- 04** | Control and Security: No security
- 05** | Efficiency: Waste of time from lack of information & from insecure system
- 06** | Services: No notification on laundry progress; No security service

Summary Solution

Step 1 :

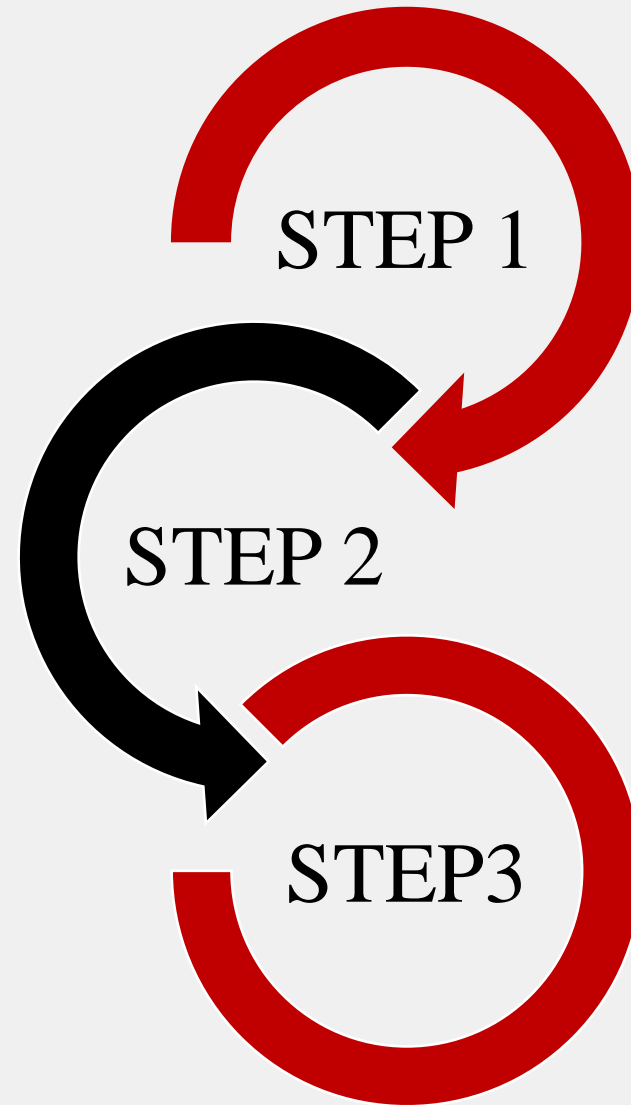
Run in any mobile environment
and on web browser

Step 2 :

Connected to public laundry room
inside the apartment

Step 3 :

A registered user can
book and pay the laundry



Result :

**The application will serve as a
helping hand for residents.**

Summary

Questions posed in the last presentation

Q. When the system collects personal information, what kind of information does it collect?
And how long does the record rest?

A. The system will collect information on the username, laundry machine usage history, and payment history. These records will be kept for one year and will be deleted.

Q. What is the rule on cancellation?

A.

Time before the laundry	~ 2 hours	1 ~ 2 hours	30 ~ 60 minutes	~ 30 minutes
Fine	0	50 cents	1 dollar	Full charge

Summary *Questions posed in the last presentation*

Q. Is the code of a lock linked to one specific machine?

A. Yes. A laundry machine will be linked to one lock.

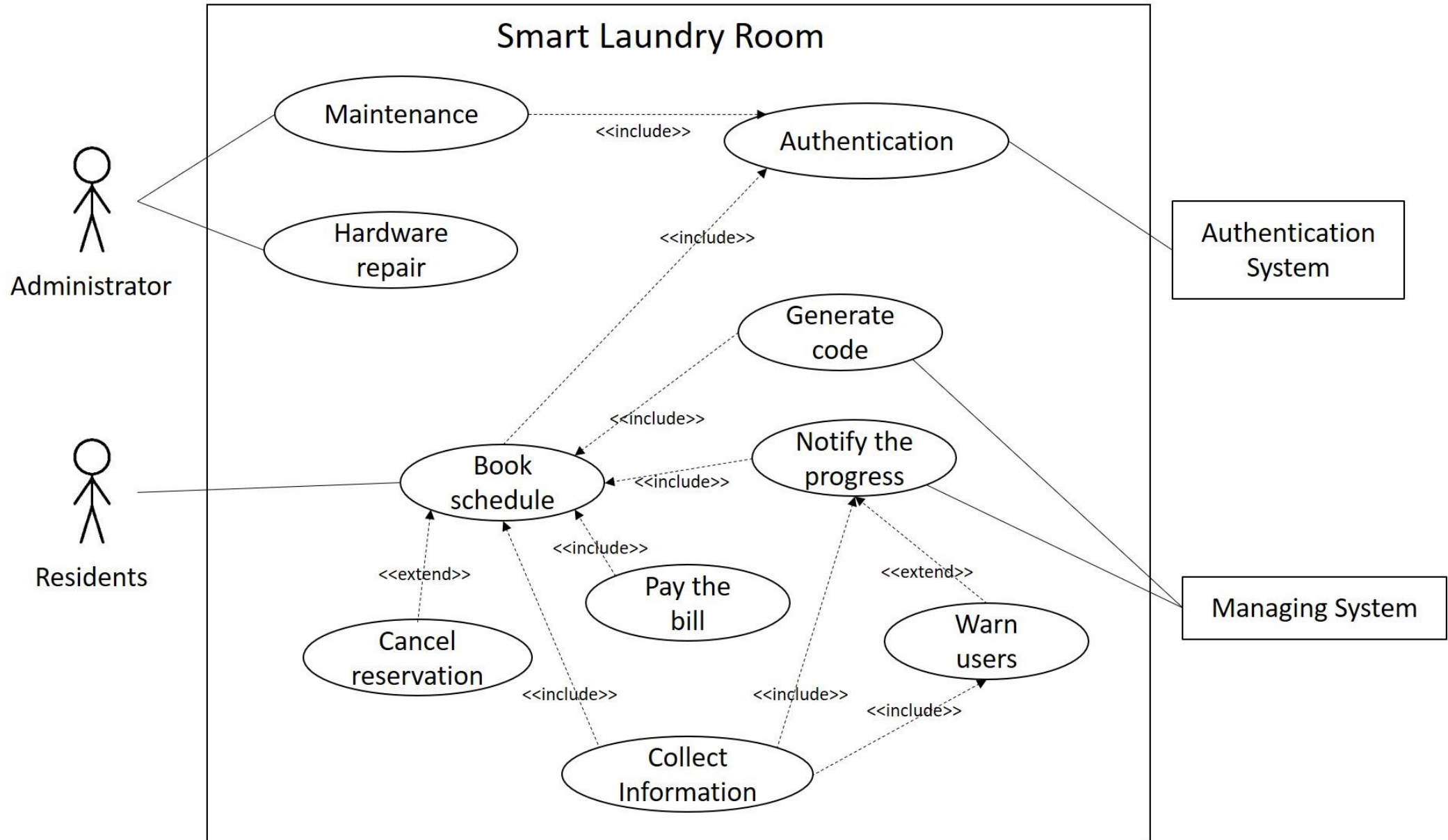
Q. Are you really going to build the application for Windows phone?

A. Considering the portion of people who use Windows phone (less than 1%) and the system will be able to be used in web browsers, we decided not to build one for Windows phone.

02

Usecase diagram

Usecase diagram



03

PBL and user story

PBL and user story *Product backlog*

	PBI	priority	Points
mandatory	Reservation	1	13
mandatory	User Identification	2	6
mandatory	Notification	3	7
mandatory	Pay	4	7
mandatory	Lock	5	8
mandatory	Select language	6	4
optional	Check personal history usage	7	3
optional	Change color theme	8	4

PBL and user story User stories

PBI	As a	I want to	So that	Test criteria	Point
Reservation	User	View the available time slot for up to three days	I can plan my laundry	Can show the correct time slot corresponding to user address	5
	User	Reserve time for laundry	I can do my laundry in my preferred time	Can see the time slot which indicates availability Can choose the empty slot (which means available) Cannot choose a already reserved slot	5
	User	Cancel my reservation		Can get rid of the reservation Can compare the reserved time and the time when cancellation happens and penalize the user if needed according to the rule	3
User Identification	Tenant	Create an account	I can be registered as a user from a specific building	Can select registration button and fill the form and submit it Can enter user information including username, password, and apartment code	3
	User	Login to the system	I can access to all the functions of the application	Can enter username and password and login	2
	User	Logout from the system	I can deactivate my account when I don't use it		1

PBL and user story User stories

PBI	As a	I want to	So that	Test criteria	Point
Notification	User	Customize the notification setting	I can take my laundry in time	Can select the time for notification message to be sent (e.g. 5 minutes before the laundry is done)	2
	User	Check the progress / current state of my laundry	I can take my laundry in time	Can see a timeline indicating laundry progress	5
Pay	User	Pre-set my payment option	I can automate my payment for laundry	Can make a credit or debit card registered	3
	User	Pay by credit card		Can pay by either mastercard or visa	2
	User	Pay by debit card			2
Lock / Unlock	User	Receive the code for the laundry machine when my allocated time slot started	I can use the code to open the machine if needed	System can generate the code if the booking is valid The code has to match the lock on the laundry machine	5
	User	Open the laundry machine if needed	I can put or take out clothes	The laundry machine can be opened with the code	3
Language Selection	User	Use the application in English		Can be run in English	2
	User	Use the application in French		Can be run in French	2

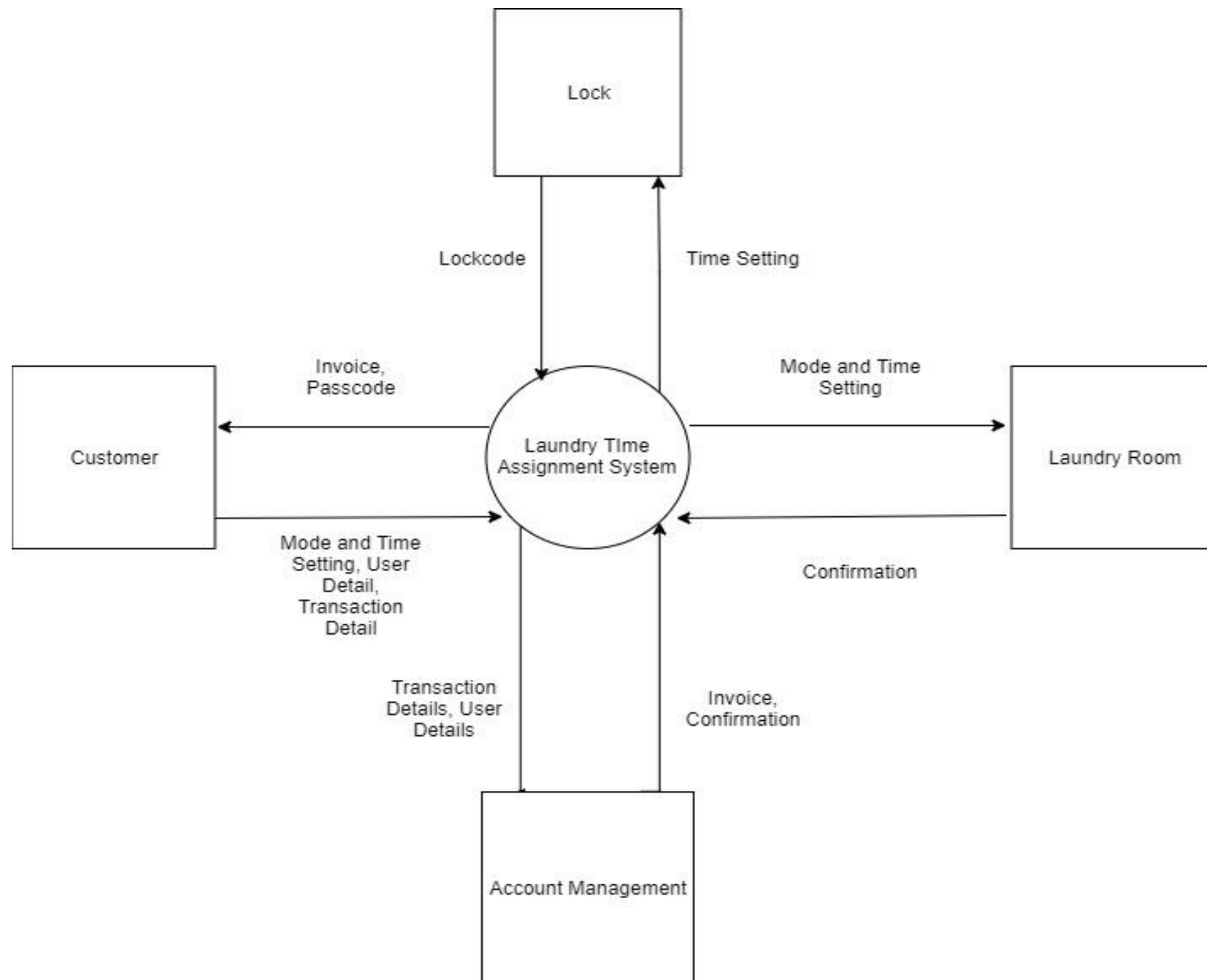
PBL and user story Trello board

<https://trello.com/b/RAQIOWBS/smart-laundry-room>

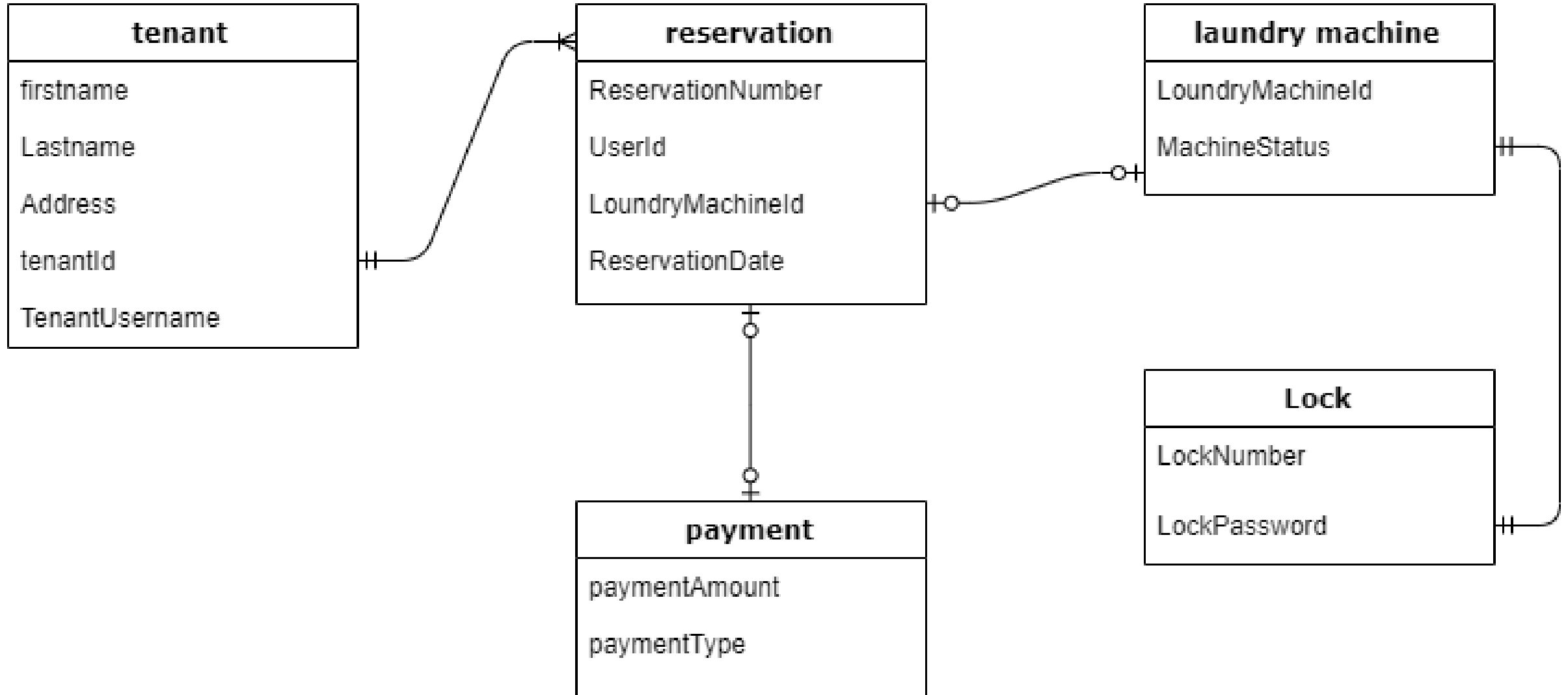
04

Process and Data

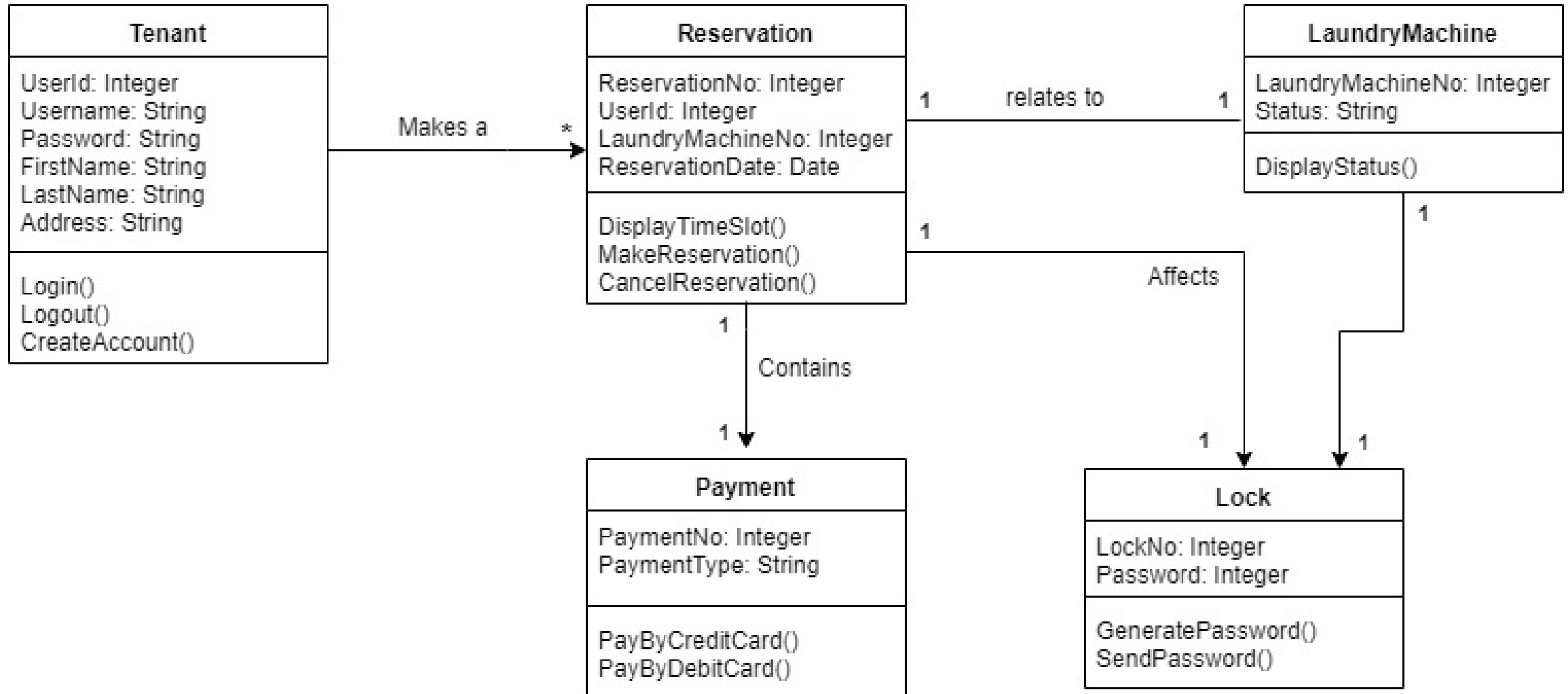
Data Flow Diagram



Process and Data *Entity Relationship Diagram*

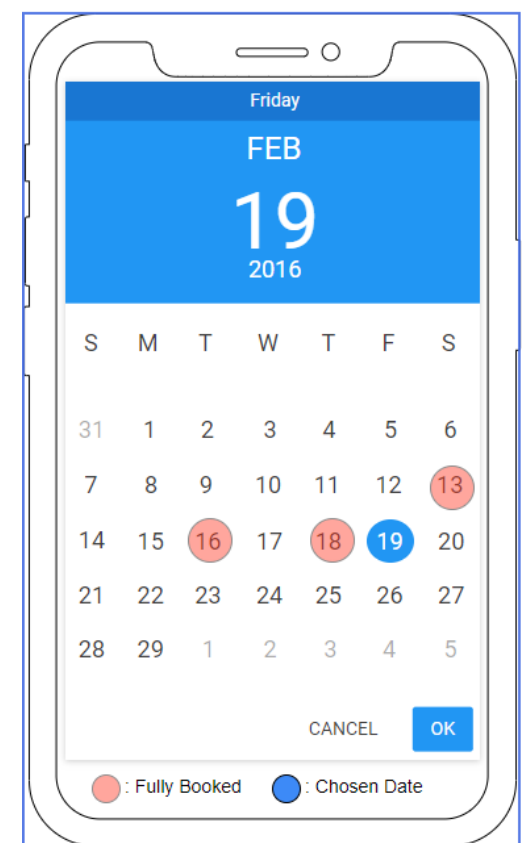
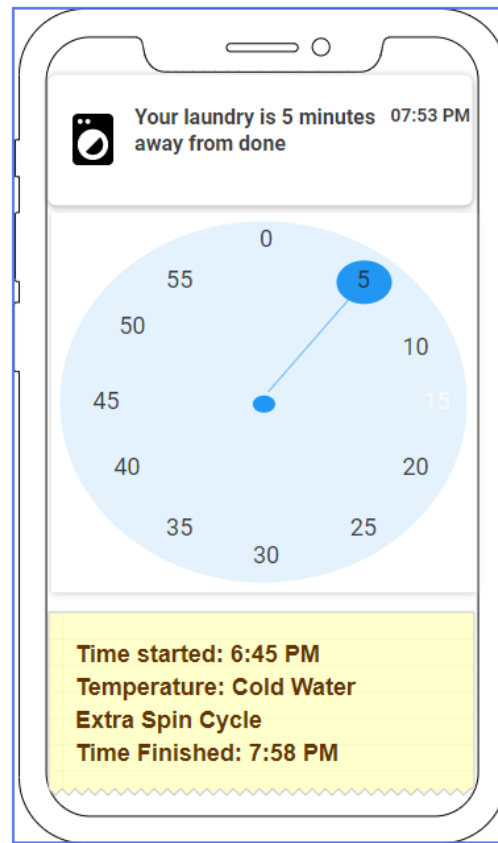
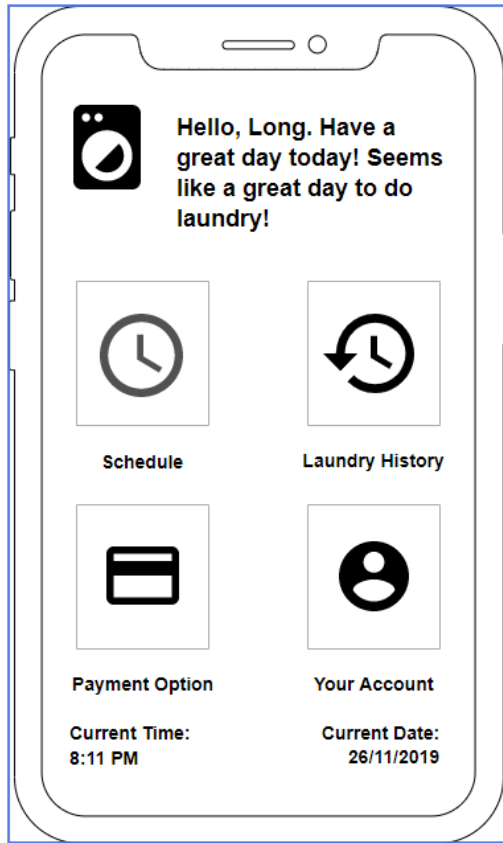


Process and Data Class Diagram



05

Mock-up Design



Mock-up

06

Conclusion

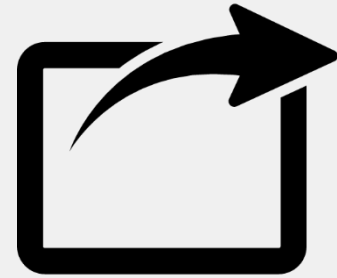
Conclusion



Problem definition:
Inefficiency
insecurity



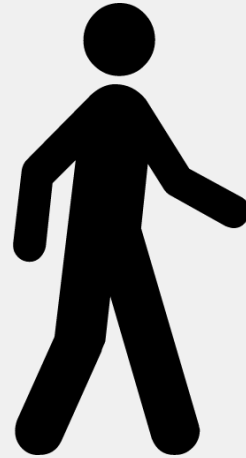
Feasibility study
and Analysis



Alternative:
Smart Laundry Room

Conclusion

- A Smart Lock
- Existing Laundry Machine



- Apartment Contact
- Estimating feasibility and points

THANK

YOU