

# Playful Laundry: A Gamified Laundry Booking System



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## Introduction

Problems with using the communal laundry room:

- Go to check for available machines periodically
- Wait your turn and constantly check when it's done
- Your clothes are left out due to being forgetful ☹
- Machines are not used with highest capacities

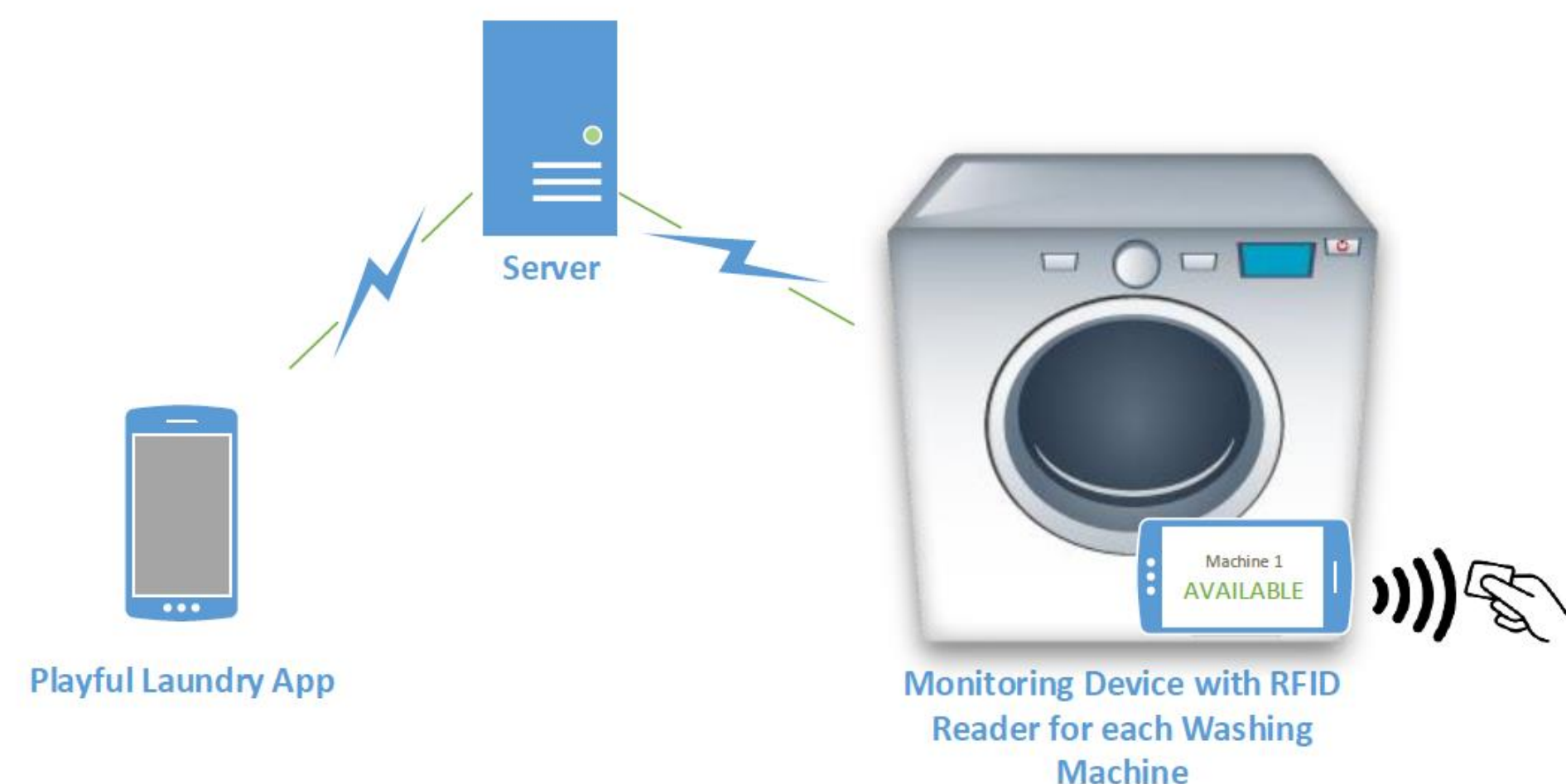
Gamification:

- Motivate and improve user activity and retention
- Producing desired psychological and behavioral outcomes



**Fig 1** Nike+, a mobile application that successfully employs gamification

## Booking system

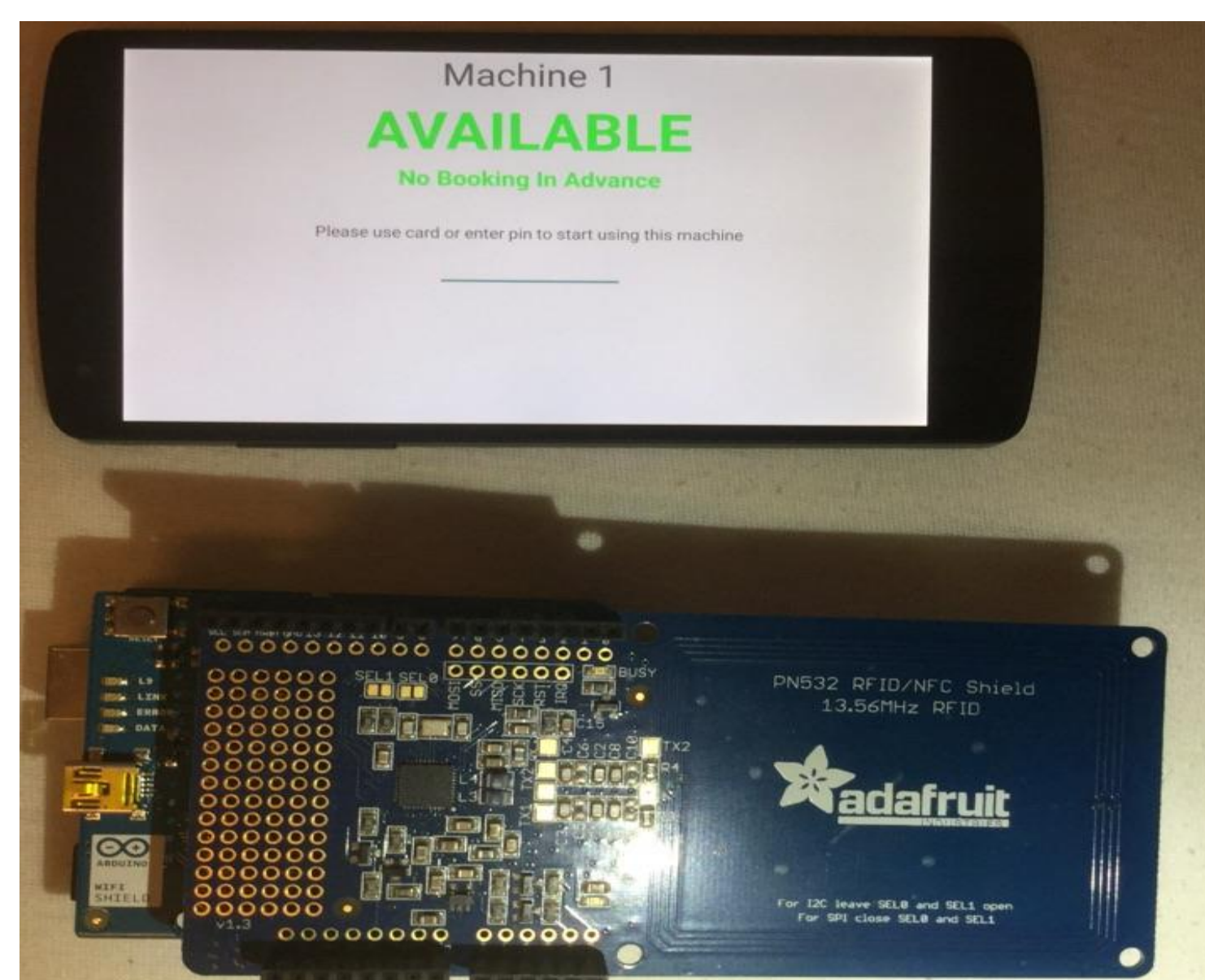


**Fig 2** Three components of the booking system

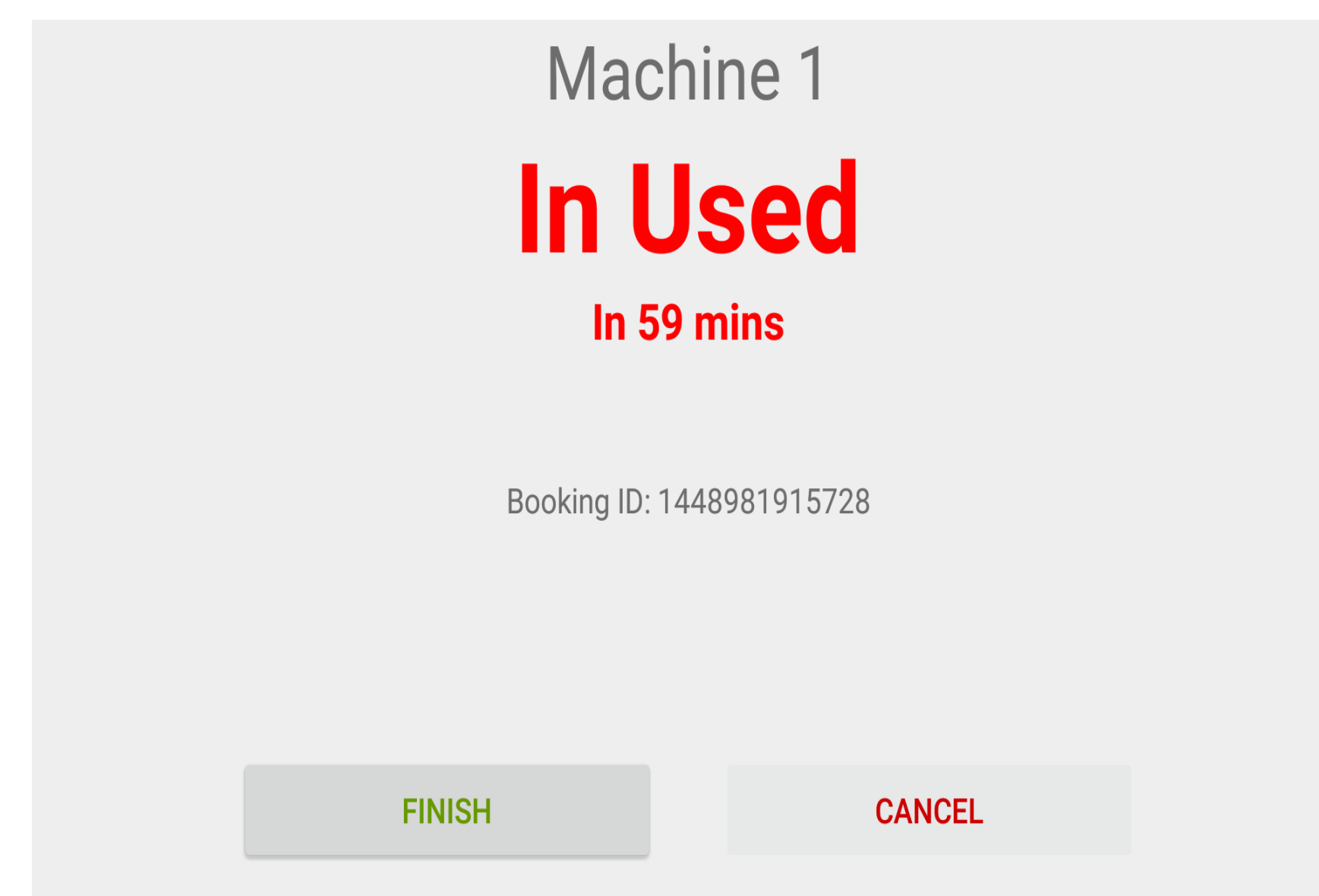
The server manages all users information, bookings and machines status.

Each washing machine has a monitoring device which displays current states of the machine and communicate with server.

Playful Laundry is the laundry booking application on mobile phone

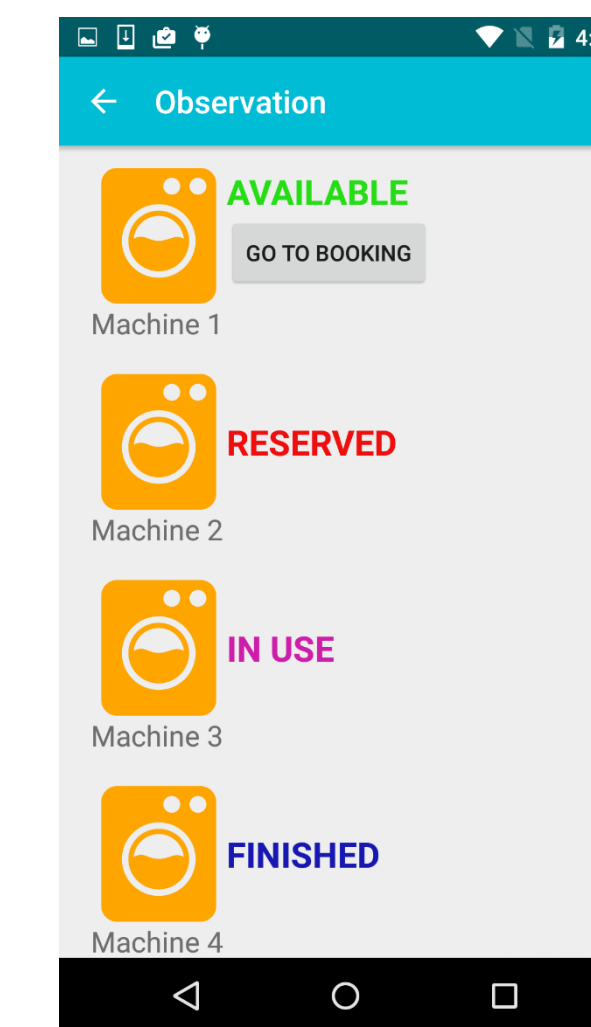


**Fig 3** The prototype of monitoring device

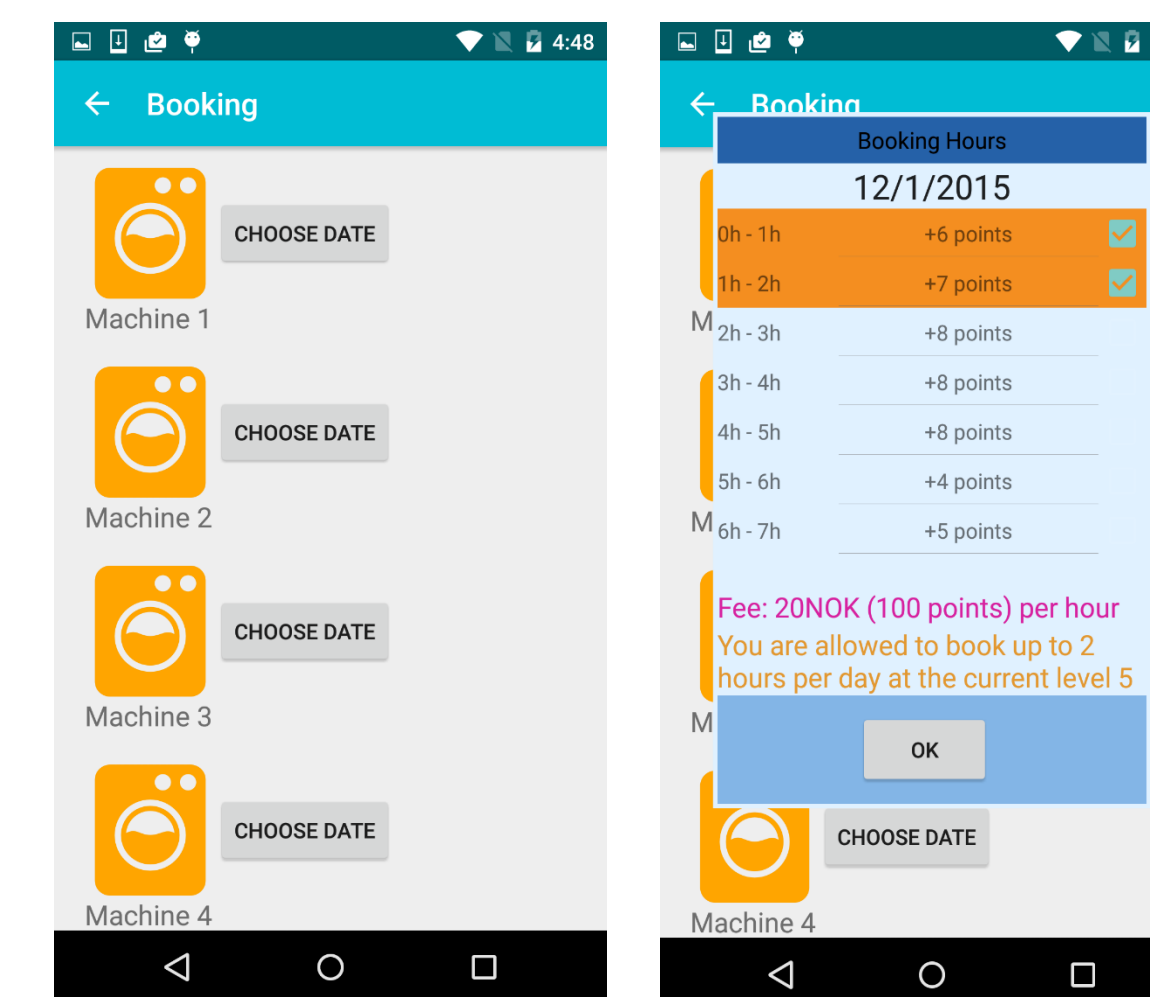


**Fig 4** Monitoring display when the machine is running

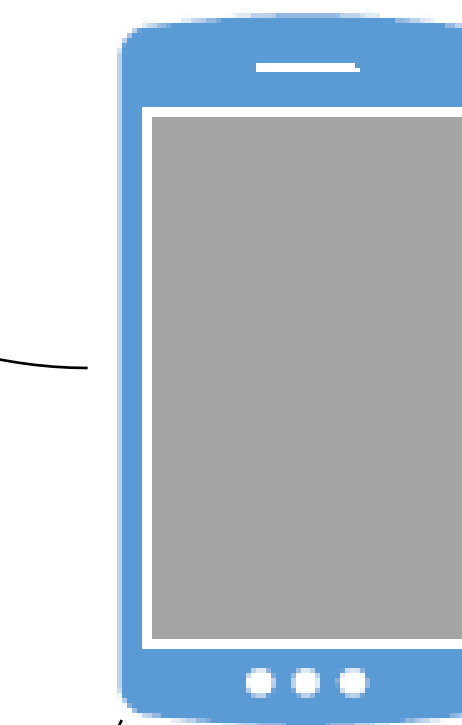
## Playful Laundry Application



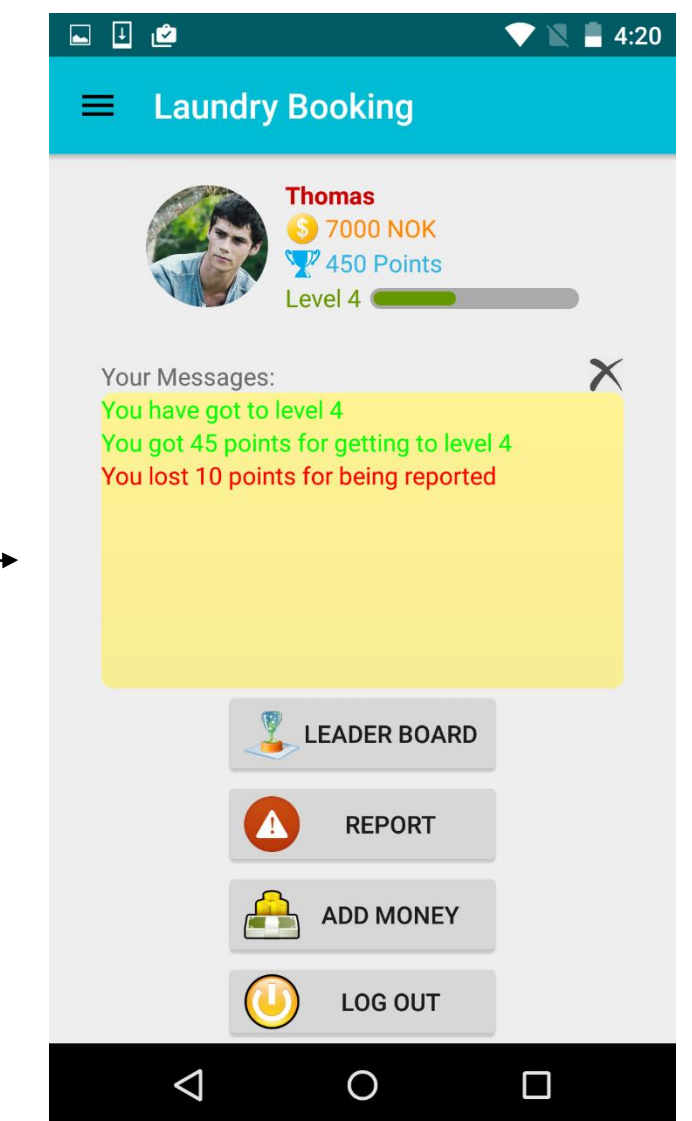
**Fig 5** Real time status observation of the machines



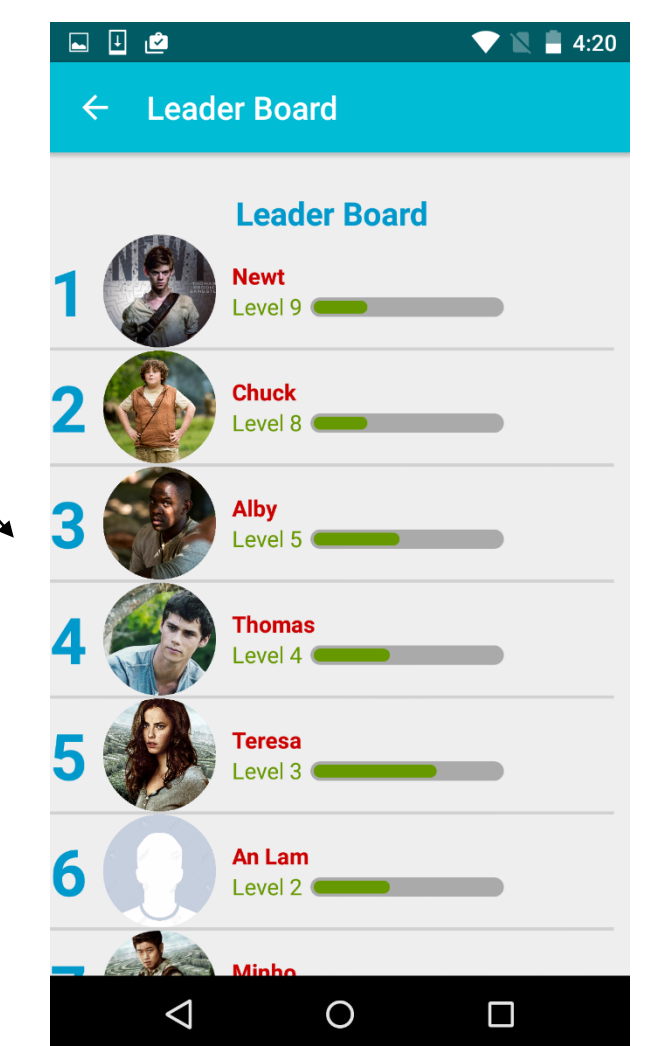
**Fig 6** Reserving and managing time-slot



**Fig 7** Statistics about usage history of the machines



**Fig 8** User account



**Fig 9** Leader board shows the user's rank among others

## Evaluation

Results from evaluating students:

- They find this application interesting and want to use this (6.75/8)
- The awards/penalties parts are fun/interesting to use (7/8)
- They are interested in earning points and advancing their ranks with this application (7/8)
- This application will change their habits of doing laundry in the long run (6.75/8)

## Future directions

1. Create a mini social media platform
2. Move the Report functionality to the machines.