CS615 Project Step 3 Report
- Storyboards and Sketches -

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We have identified hierarchical descriptions of 1) the parking process on campus, 2) purchasing parking passes, and 3) Imposing/paying parking fines from project step 2.
We will present our storyboard to demonstrate how our parking management system can be used for a specific persona and a scenario using visual descriptions.

Personas

Persona #1

Alice
- An undergraduate student at UMass Boston
- Drives and parks on campus
- Has basic knowledge of using smartphones
- Just started driving, so not familiar with parking regulations
- Prefers online systems to in-person systems

Persona #2

Tom
- A manager for a parking lot at UMass Boston
- His duty includes checking parking lot availability, citing parking violations, managing parking passes, and customer services
- Has good knowledge of using smart devices

## Scenario: "Campus parking on hand"

- 1. Getting a parking pass - Feeling: Annoyed, discouraged
    - Alice tries to find where to buy a parking pass
    - He found he needed to apply for a parking pass and wait for an approval

- He submitted an application but got rejected because he's not eligible for the type of parking pass he applied for
- Finally, he got the parking pass but he wants to cancel his parking pass because he changed his plan
- After the semester, he checked his bank account, and he found he was still charged
- Calling the parking office, he finally resolved the issue

- 2. Switching to the parking app - Feeling: Dubious, promising
    - Alice logs in to the app using the university credentials
    - The parking app shows only available parking pass options to Alice by checking his account status (Student, Faculty, Full-time/Part-time, …)
    - Alice pays for the parking pass in the same app
    - The parking app automatically authorizes Alice's parking pass and Alice can freely use the parking lot from then
    - Parking managers can see the current parking pass holders list real-time
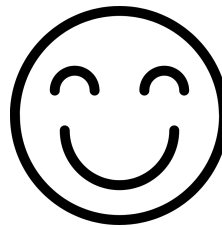
- 3. Problem solved - Feeling: Happy, Relieved
    - Alice can cancel or change his parking pass as long as the app allows
    - The app will automatically calculate the prorated amount and issue a refund
    - Alice could deal with his parking pass purchase without hassles

—Purchasing a Parking Pass—

1.
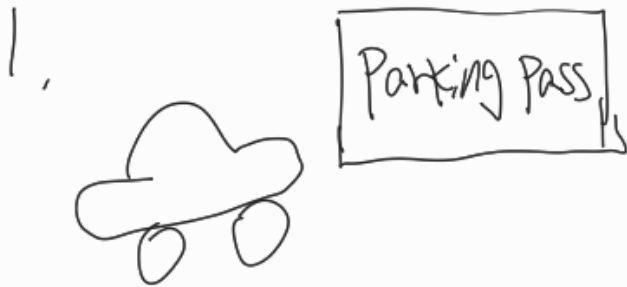
Parking Pass

A student Alice needs to purchase a parking pass for the upcoming semester.

2. He downloads the parking app, and he logs in with his university account. The parking app pulls up his status. The app only shows the available parking pass types he can purchase.

Welcome "Alice"

You are a **full-time** graduate student

Select

| On-campus | Off-campus |

Available spots: West Garage, Lot D, University Hall
. Bayside

Add my vehicle

| Take Photo |

| MA 1234 |

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3. Alice pays the parking pass on the app

CARD NUMBER

| XXXX-XXXX |

VISA, Master, Discover, PayPal

Product: Fall 2023 Semester Parking Pass
Price: $550

Payment option:

| Pay in full | | Installment |

4. The app automatically validates the parking pass that a parking manager will not need to do any manual validations.

Name	Type	Purchase date
Bob	student	09/01/2023
Alice	student	08/30/2023
Charles	Faculty	
Erik	Faculty	
Frank	Student	
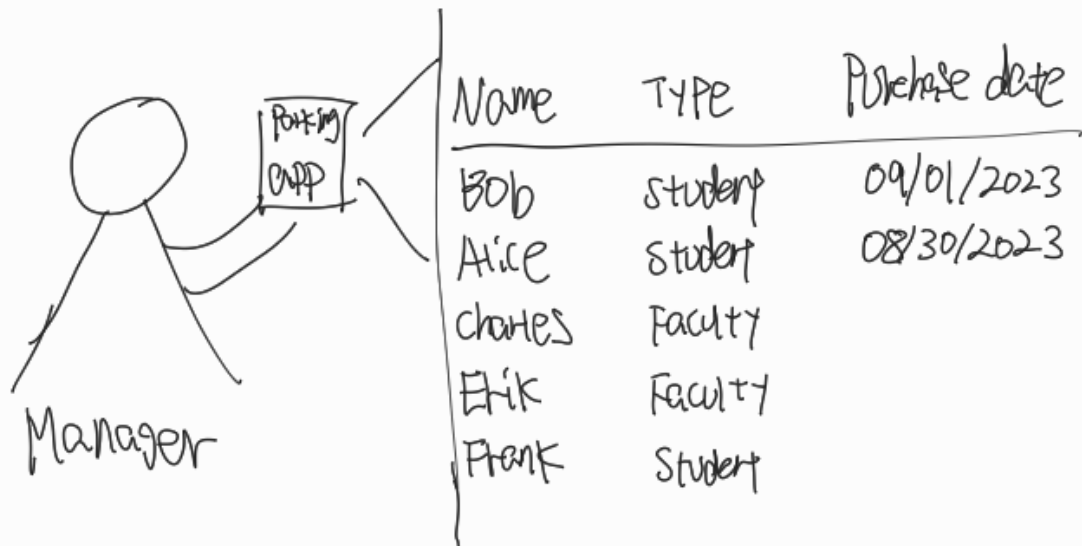
5. Alice can check his current & past parking passes in the app anytime

Fall 2023	on-campus	$550	Active	until 12/31/23
Fall 2022	off-campus	$500	Expired	until 12/31/23

— Paying Parking fines —

1.
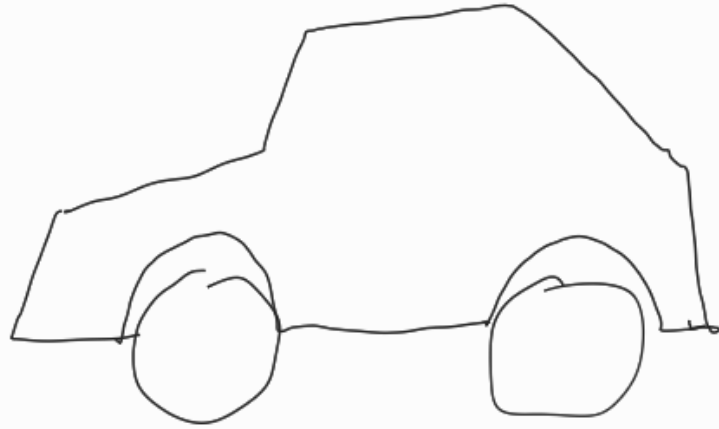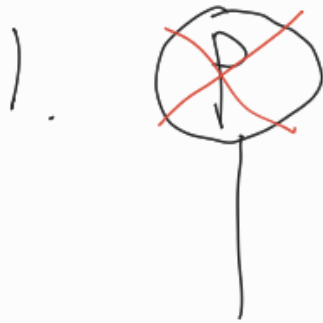
A Student Alice violated
a Parking regulation

2. A Parking manager notifies Alice of his parking violation

Violation notice

Manager

Move Your car ASAP
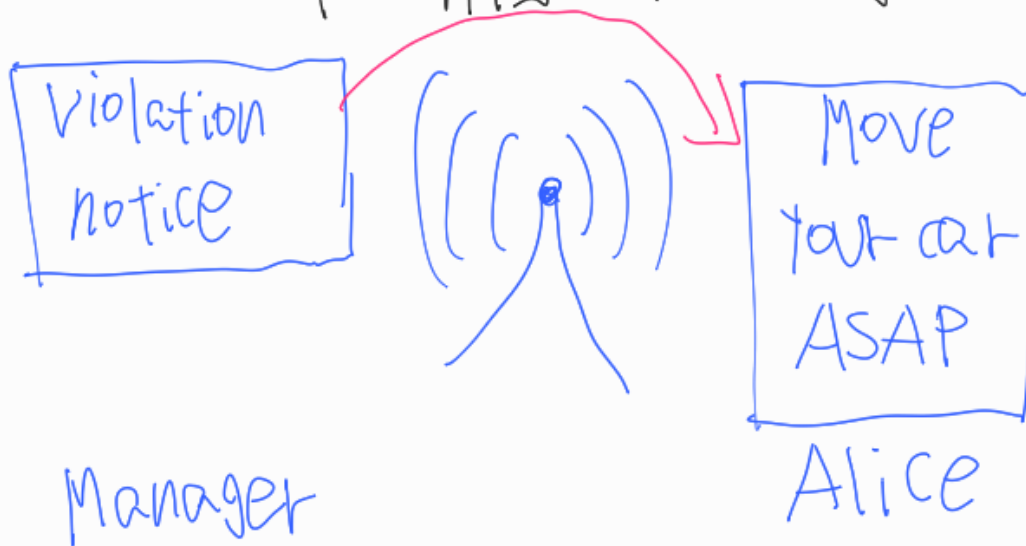
Alice

3. If Alice does not move his vehicle, parking fines will be automatically incurred in his account

UMB Parking app

☑ Alice fine $50   Due 10/11/2024

[Pay] | [Dispute]

4. Alice can directly pay in the app, and his citation will be revoked.

CARD NUMBER
[xxxx-xxxx]
VISA, Master, Discover, PayPal

Product: Fall 2023 Semester Parking Pass
Price: $550

Payment option:
[Pay in full]   [Installment]

UMB Parking app

Alice fine $50 PAID

— No data below —

STORY BOARD   GROUP-2

PARKING APP - STUDENT

1.
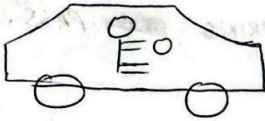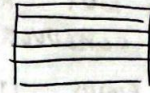
WEST GARAGE   LOT-D   CAMPUS CENTER   BAY SIDE

John chooses parking facility.

2.
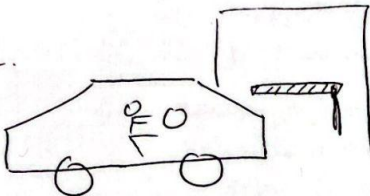
John enters the parking facility, west garage

3.
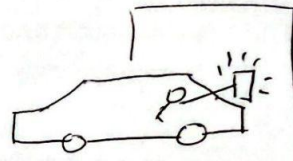
John presents a parking pass (or) pulls a ticket

4.

FLOOR-1 SPACE
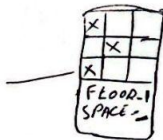
John checks available spaces on app.

5.

11
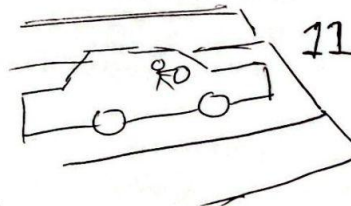
John parks car in spot. 11

6.

$10

7. ?

John pays the fee using the app.   John can't recall where he parked.
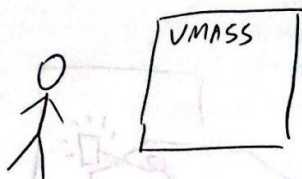
8.

YOU PARKED @ SPOT 11
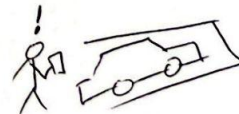
John checks app to remember where he parked
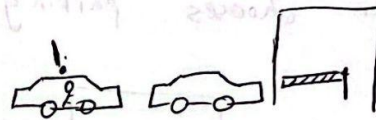
PARKING APP — FACULTY MEMBER
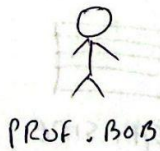
- COMES TO CAMPUS IRREGULARLY
- NOT ABLE TO PREDICT PARKING TIMES.
- SCHEDULE CHANGES EVERY SEMESTER.
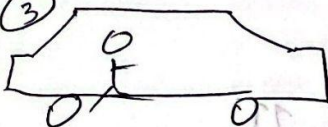- FINDS IT UNNECESSARY TO BUY A PARKING ~~PASS~~ PASS.

PROF. BOB

①
VMASS

BOB COMES
TO COLLEGE
IRREGULARLY
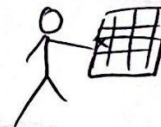
②

BOB IS UNABLE
TO PREDICT PARKING
TIMES

③

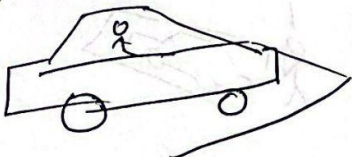BOB ENDS
UP WASTING TIME
LOOKING FOR A PARKING
SPOT

④

~~OFTEN ENDING~~
UP ~~ST~~
OFTEN
SHOWING UP
LATE

⑤

WITH THE
PARKING APP,
BOB IS ABLE
TO LOCATE VACANT
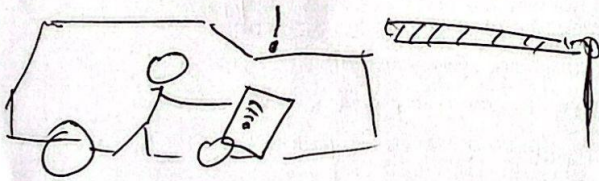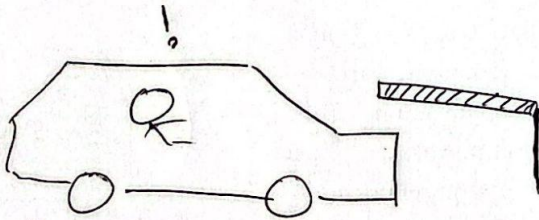SPOTS

⑥

BOB DIRECTLY
PARKS AT THE VACANT
SPOT

⑦

EFFECTIVELY
SAVING TIME
& ~~ENDING UP~~

ALEX

– ALEX OFTEN FORGETS TO BRING HIS PARKING PASS TO SCHOOL

WITH THE PARKING APP, HE CAN USE THE NFC ON HIS PHONE TO PARK WITH EASE

References

Emoticons:
https://thenounproject.com/icon/mad-540789/
https://thenounproject.com/browse/icons/term/skeptical/
https://www.svgrepo.com/svg/10551/happy