

ISTN3AS
26 June
2021



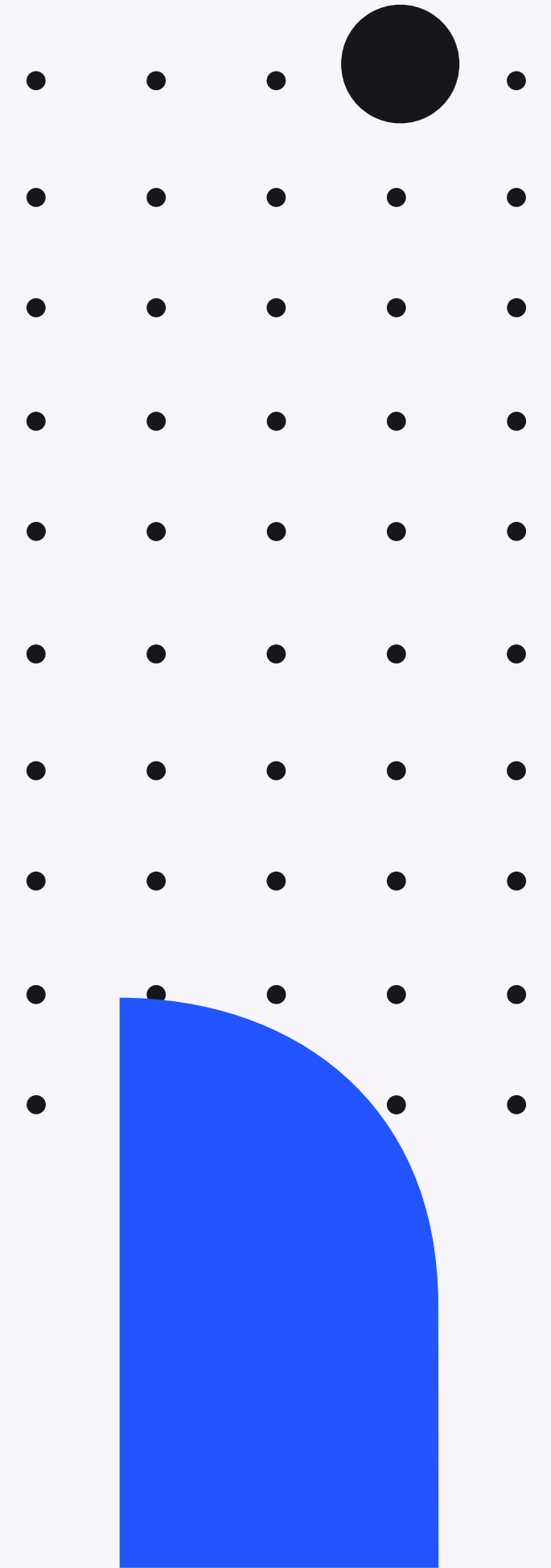
Codename: Developers Next Door

Self-Service Ordering System
Prototype

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Presentation Outline

- **Client Background**
- **Strategy and Approach**
- **Major Requirements**
- **Overview of Benefits**
- **Project Highlights**
- **Project Lowlights & Lessons Learned**
- **Where we are heading**
- **Physical ERD**



CLIENT BACKGROUND



Who are they and what do they do?

- Dimension Data Westville Branch
- South African-based IT company
- Willing to play the role of our client
- Offer global solutions

Area for improvement

- Internal canteen in need of upgrade
- Provides quick snacks to employees before meetings

Main problems they face

- Lengthy waiting times
- Long queues
- COVID-19 safety measures -> social distancing & minimizing interaction



Picture: Dimension Data
Westville Branch



Picture: Westway Office Park

OUR STRATEGY AND APPROACH

Proposed prototype solution

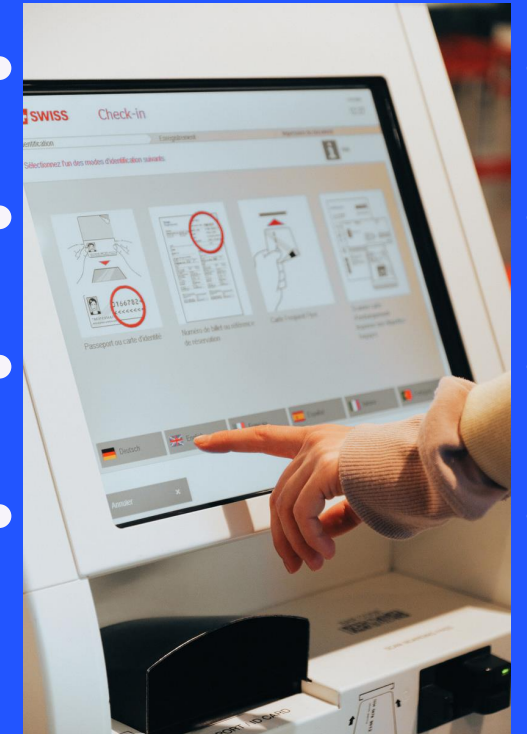
- Self-service kiosk ordering system

Agile methodology

- Applied an agile methodology
- SCRUM framework -> sprints
- Modular prototype assembly
- Provided us with flexibility
- Developed iteratively and incrementally
- Product backlog -> prioritize features

Client role

- Our client was very cooperative
- Requirements gathering
- Testing an acceptance criteria



Picture: Example of a self-service kiosk

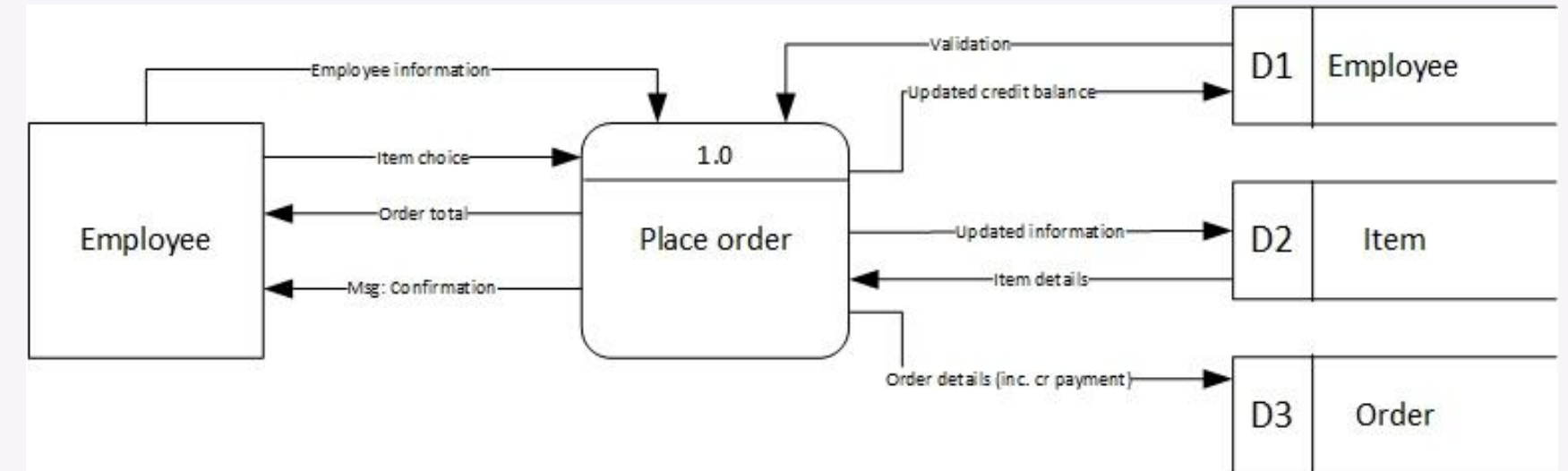


MAIN REQUIREMENTS

Providing an ordering procedure

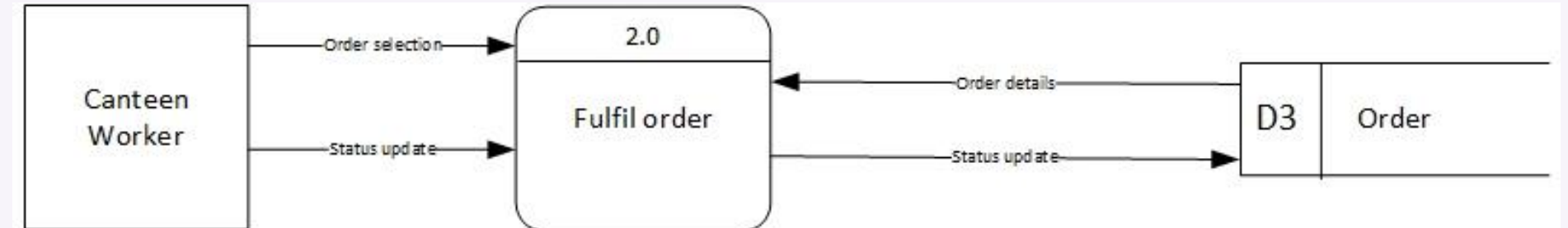
Placing the order

- Employee finds available kiosk
- Enters login credentials
- Selects Items
- Review and pay (credit deduction)



Fulfilling the order

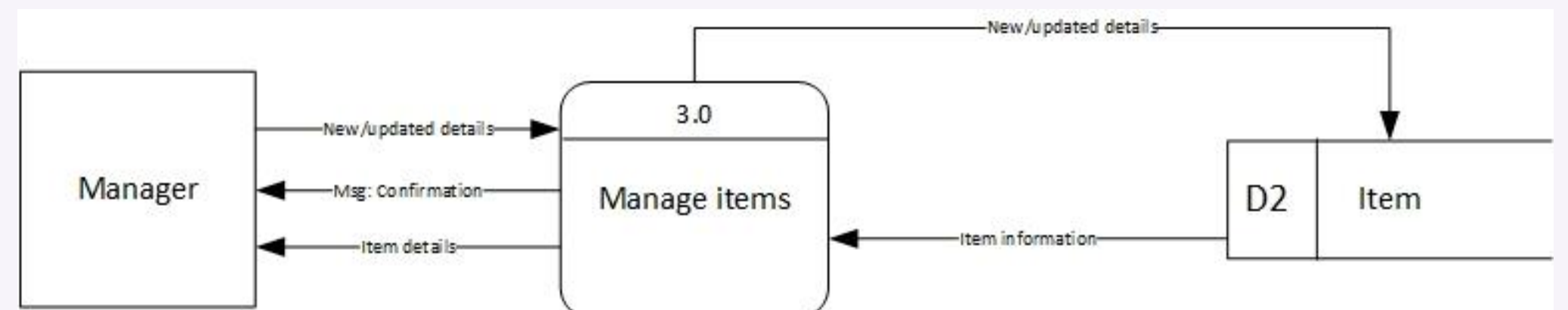
- Canteen worker views active orders
- Change order status



Managing the items

Manager can:

- Add new snack or drink item
- Remove snack or drink item
- Update snack or drink item
- View snack or drink item

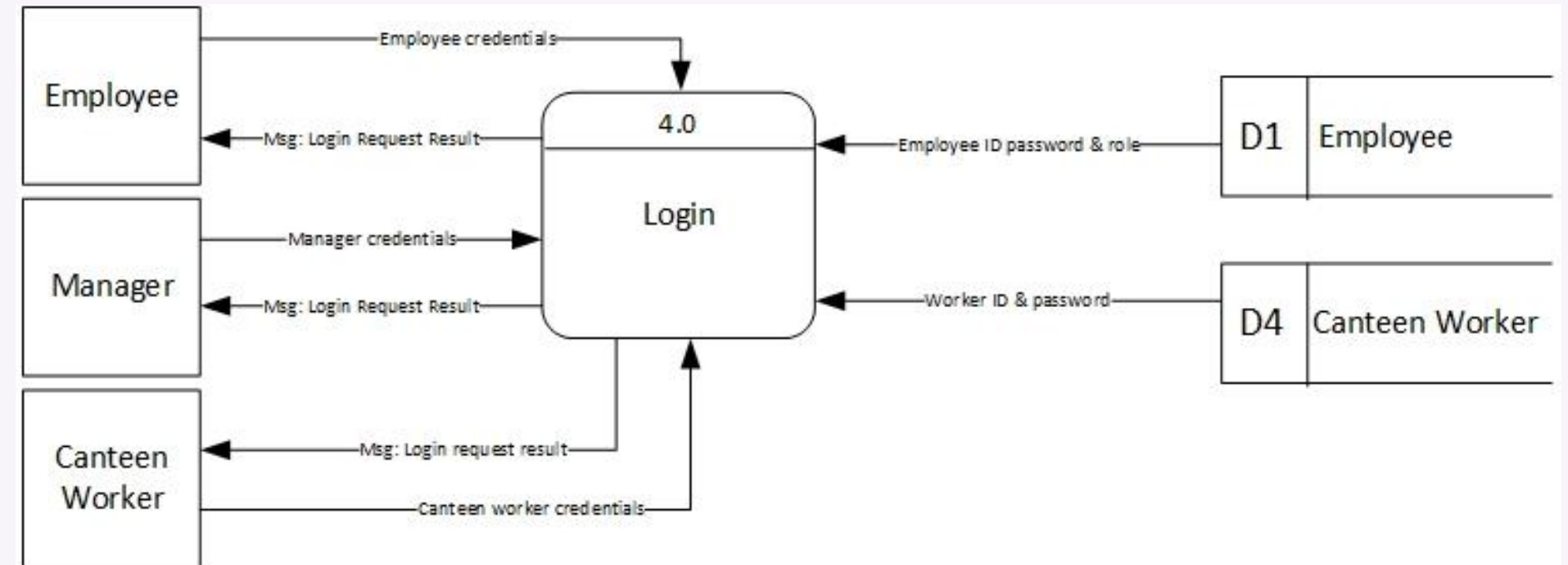


ACHIEVING MAIN REQUIREMENTS

Additional Considerations

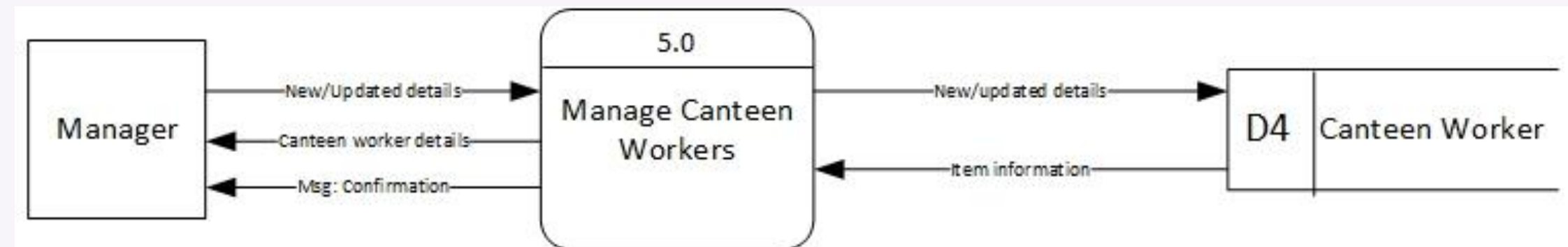
Logging in

- Enter user credentials
- Get authorization status
- Features unlocked according to role



Managing canteen workers

- Adding a new canteen worker
- Removing a canteen worker
- Updating a canteen worker's details
- Viewing canteen workers' details



ADDITIONAL FEATURES

Prototype Enhancements

Employee Credit Scheme

- Unique aspect to the system
- Revolutionises the way payments are done
- No need for exchanging real money (Rands)

View credit information

- Employee can view their credit limit
- Employee can view their credit balance
- Employee can view history of credit expenditure

Change credit limits

- Manager can view all credit limits
- Manager can change individual credit limits
- Manager can apply global credit limit

Item availability

- Dynamic toggle for canteen workers
- Can change at any time

Change Item availability

- Canteen worker can select any menu item
- Canteen worker can toggle the availability status of item

OVERVIEW OF BENEFITS

Short-Term

- Reduced waiting time
- Reduced queues
- Eliminates/Reduces human errors
- Enhanced ordering experience
- Safer environment during COVID-19



Long-Term

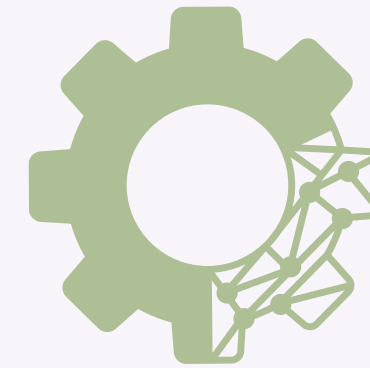
- Aligns itself with client vision
- Greater organizational cohesiveness
- Enhanced decision-making support
- Sets foundation for expansion



PROJECT HIGHLIGHTS AND ACHIEVEMENTS

Feature-rich prototype

- Albeit it a prototype, still tried to make it feature-rich
- Able to deliver on all client requests
- Incorporated our own features



Extra touches

- Included many managerial aspects
- Able to incorporate our credit scheme and other quality of life improvements



Eliminates issues of old system

- Cuts down queues and waiting times
- Generates meaningful data
- Reduces human errors
- Enables safer canteen environment
- Increases overall operational efficiency



PROJECT LOWLIGHTS AND LESSONS LEARNED

Technology constraints

- Use of biometrics
- Access card scanning



Prototype characteristics

- A working proof of concept
- Can always be improved
- Still tried to make the prototype as useable as possible



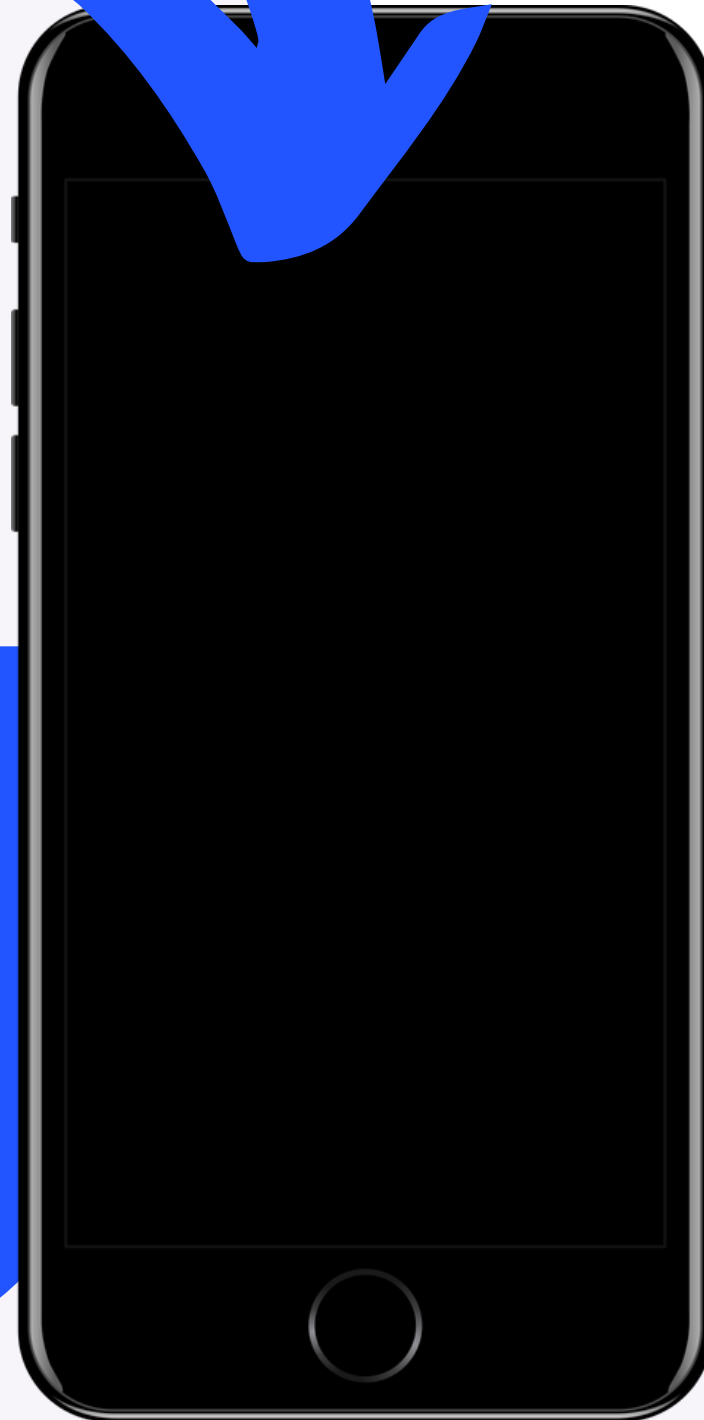
Lessons learned

- Designing and developing the prototype in preparation for future advancements can only be obtainable through good teamwork





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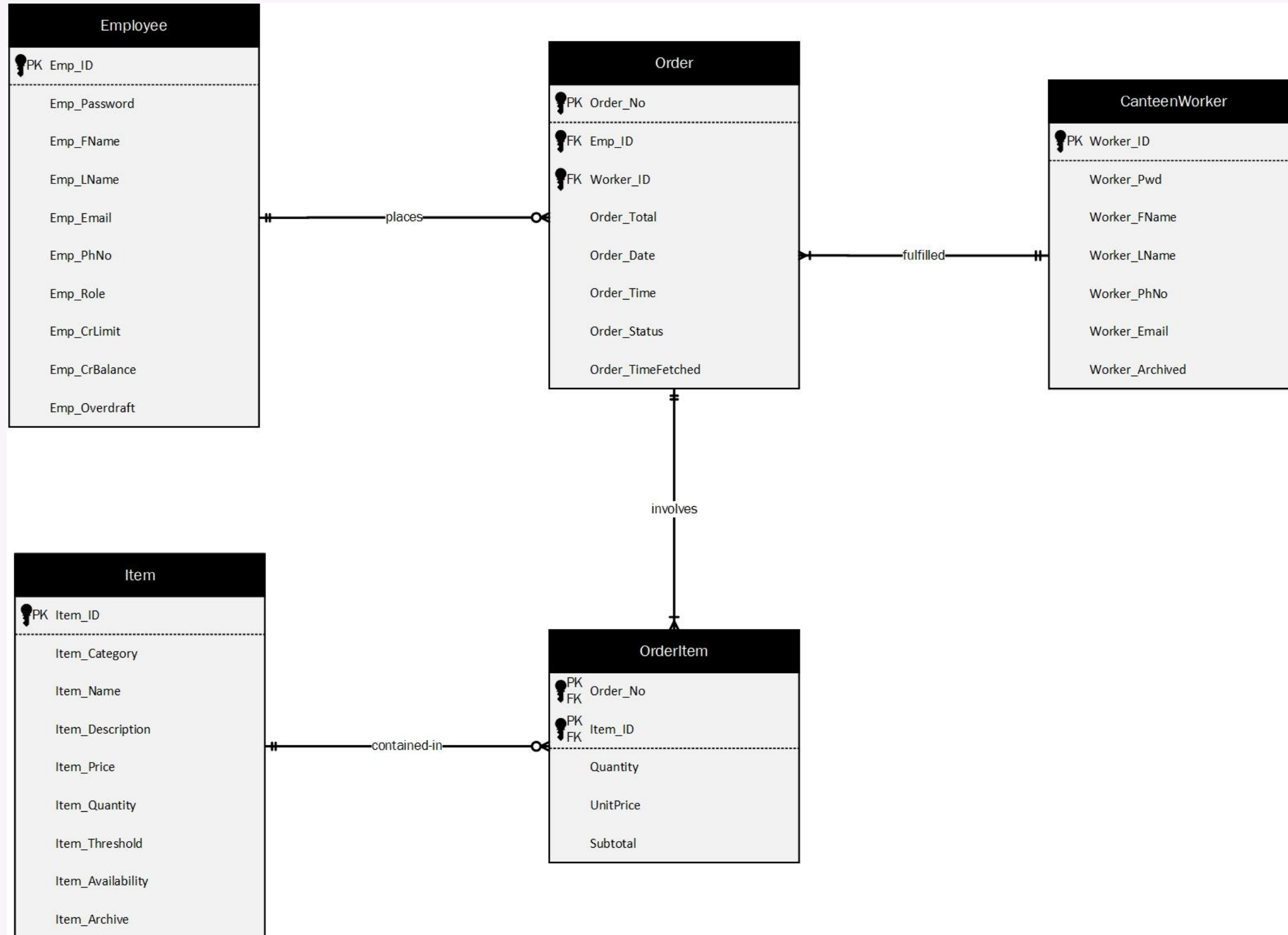
WHERE TO NOW?

Porting of the system to an online, web-based application

- Able to order outside of the canteen








PHYSICAL ERD



BADGES OBTAINED

Number of badges available: 5

Image	Name [▲]	Description	Criteria	Issued to me [▲] ▼
	Survey 5	This is the final badge...you should now have 5 badges in total!	Users are awarded this badge when they complete the following requirement: <ul style="list-style-type: none"> The following activity has to be completed: <ul style="list-style-type: none"> "Feedback - Survey 5" by 22 June 2021 	
	Survey 4	Badge earned for Survey 4	Users are awarded this badge when they complete the following requirement: <ul style="list-style-type: none"> The following activity has to be completed: <ul style="list-style-type: none"> "Feedback - Survey 4" by 21 June 2021 	Date: 20/06/21 ✓
	Survey 3	Badge for Completing Survey 3 of the Major Project	Users are awarded this badge when they complete the following requirement: <ul style="list-style-type: none"> The following activity has to be completed: <ul style="list-style-type: none"> "Feedback - Survey 3" by 19 June 2021 	
	Survey 1	Completion of Feedback Activity 1	Users are awarded this badge when they complete the following requirement: <ul style="list-style-type: none"> The following activity has to be completed: <ul style="list-style-type: none"> "Feedback - Feedback Survey 1 (Major Project Group Reps ONLY)" by 23 May 2021 	
	Completion of Survey 2	Earned for the completion of Major Project Survey 2	Users are awarded this badge when they complete the following requirement: <ul style="list-style-type: none"> The following activity has to be completed: <ul style="list-style-type: none"> "Feedback - Feedback Survey 2" by 31 May 2021 	

USER STORIES

Title: Ordering	Priority: High
As a company employee who regularly uses the canteen I want to place an order digitally so that I don't have to spend more than 2 minutes in a queue.	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">I should be able to select food and drink items by categoryI should be able to choose the quantity for each item I addI should be able to remove an item from my 'cart'	

Title: Credit Limits	Priority: High
As a system administrator/manager I want to set/change the credit limits so that the credit limit always aligns with company policies.	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">I should be able to change global credit limit for all employeesI should be able to change individual credit limits	

Title: Item Availability	Priority: Medium
As a member staff who works in the canteen I want to change the availability of an item so employees are made aware of current item availability.	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">I should be able to change the item availability statusI should be able to change status throughout the day	

Title: Active Order List	Priority: Medium
As a member staff who works in the canteen I want to receive a list of active orders so I know what food and drink items to prepare.	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">Should be able to view all active ordersShould be able to mark order as ready and fetched	

Title: Manage Menu Items	Priority: High
As a system administrator/manager I want manage the menu items that will appear on the system	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">I should be able to add a new menu itemI should be able to remove a menu itemI should be able to update an existing menu item's detailI should be able to view a list of all the menu items	

Title: Manage Canteen Workers' Details	Priority: High
As a system administrator/manager I want manage the details of the canteen workers	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">I should be able to view a list of all the canteen workersI should be able to add a new canteen workerI should be able to update the details of an existing canteen workerI should be able to remove/archive a canteen worker	

Title: View Credit Balance	Priority: High
As a company employee who regularly uses the canteen I want to view my credit balance	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">I should get an indication of my credit balance when placing an order	

Title: Review Order	Priority: High
As a company employee who regularly uses the canteen I want to review my order before placing it	
<u>Acceptance Criteria:</u> <ul style="list-style-type: none">I should be able to view a list of all the items that I added to my 'cart'If needed, I should be able to remove an item from my cartIf needed, I should be able to change the quantity of an item in my cart	