

# CARRUS

## **ABSTRACT**

CARRUS is a software aimed to be implemented in kiosks to bridge the gap between shops and shoppers on the go. It aids urban dwellers to search, locate and buy products through a kiosk and just pick them up at the shop saving time at billing counters and reducing crowding at stores.

## **CARRUS: A PROJECT**

### **1. Roles and responsibilities.**

- Savion Mario Sequeira (Team Leader, Front End, SQL Backend)
- Vishnu Vardhan V (Front End, SQL Backend)
- Shreyas C (Front End, SQL Backend)
- Shruthi M (Front End, SQL Backend)

### **2. Stakeholders.**

- Shoppers (End Users)
- Shopkeepers
- Advertising Agencies
- City Corporation
- System Admin (Maintenance)

### **3. Team goals and a business objective.**

- To create an easy and interactive solution for on the go shoppers
- Contribute towards the smart city vision.
- Help local shopkeepers boost their business.
- Generate revenue through advertising.
- Reduce billing time and crowd at shops, in turn reducing infrastructure required to set up a shop.

### 4. **Background and strategic fit.**

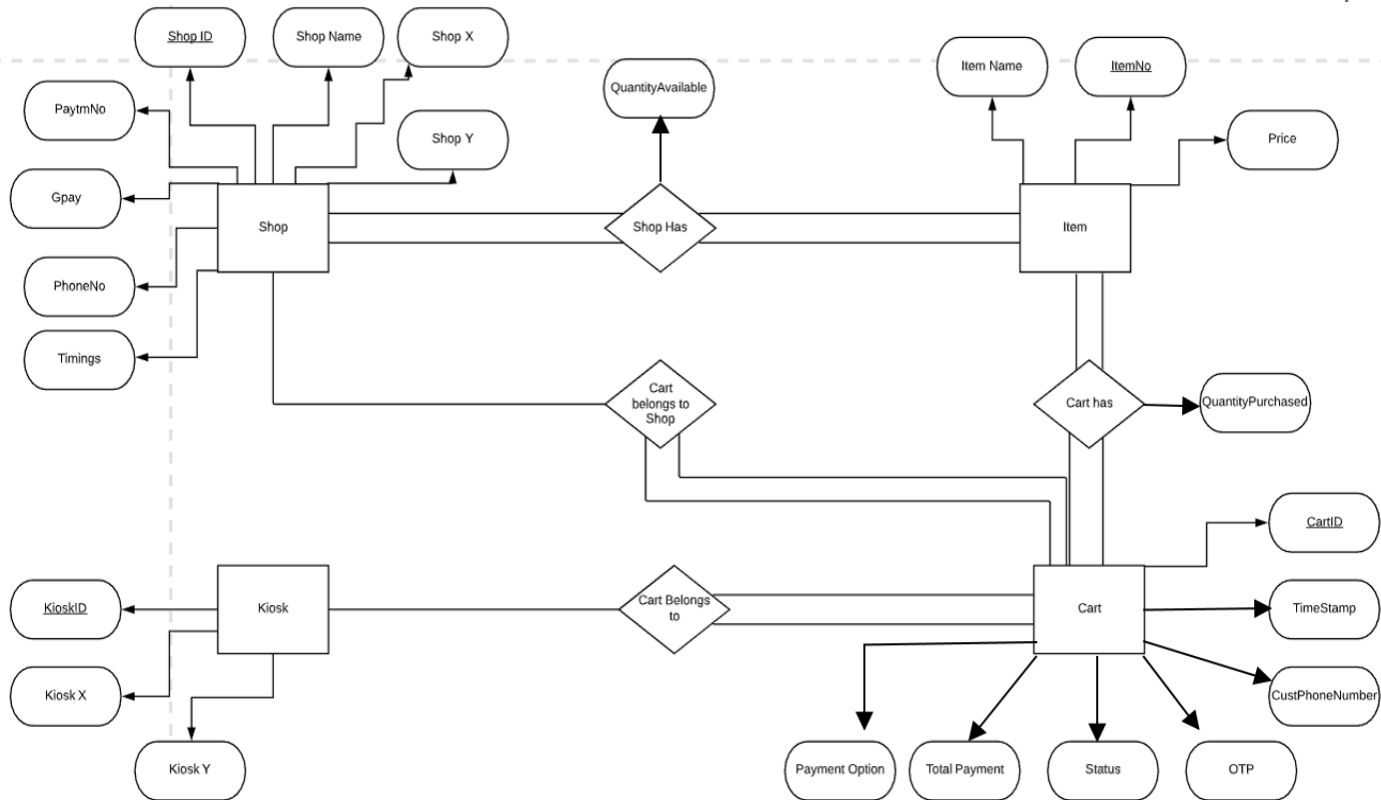
- Inspiration for this project occurred because we felt a need to fill the void between app-based grocery shopping which isn't instant and physical store shopping which is time consuming.
- During the pandemic we witnessed that most app-based shopping solutions couldn't meet everybody's need and had to stop taking new orders before fulfilling old ones. On the other hand, most people were reluctant to go to shops due to crowding and billing time.
- This project is a solution that will boost local shops business and save shoppers time.
- Since, a smart city is one that provides infrastructure to ease our day to day activities with technology and also benefit businesses in some way, CARRUS is an affordable solution to meet these needs.
- Zero paper usage makes the solution sustainable.

### 5. **Assumptions.**

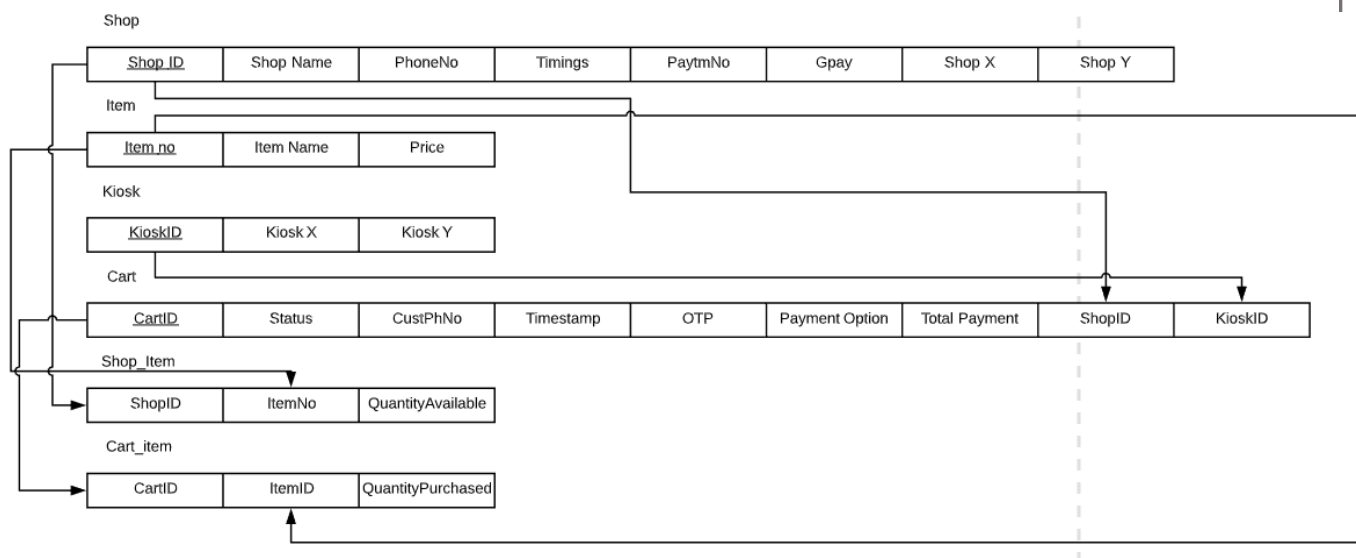
- Availability of uninterrupted electricity supply to the kiosk.
- Availability of uninterrupted internet service to the kiosk.
- Shelter to the kiosk from natural elements like rain, dust, etc.
- Basic English language literacy by the users.

## DESIGN

## ➤ ER DIAGRAM



Entity Relationship Diagram



Relationship Schema

## CARRUS: REPORT

### ➤ DATASET

- MK Retail

Item Name	Quantity
Lays	7
Heinz	3
Oreo	103
Quaker Oats	17
Cavin's	25
Cup Noodles	5
Hide and Seek	4
Red Bull	20
Oil	10
Cake	40

- Aishwarya

Item Name	Quantity
Coca Cola	43
Lays	23
Cadbury	77
Tropicana	11
Heinz	55
American Garden	5
Kurkure	9
Jolly Rancher	19

- Reliance Mart

Item Name	Quantity
Lays	34
Tropicana	25
Milk	67
Jim Jam	89
Pasta	12
Jolly Rancher	40
Monster	25
Bounty	40

## CARRUS: REPORT

- More

Item Name	Quantity
Coco Cola	32
Heinz	34
Maggi	64
Oreo	88
Kellogg's	20
Quaker Oats	100
Cavin's	6
Kwality Walls	44
Cup Noodles	11
Red Bull	9

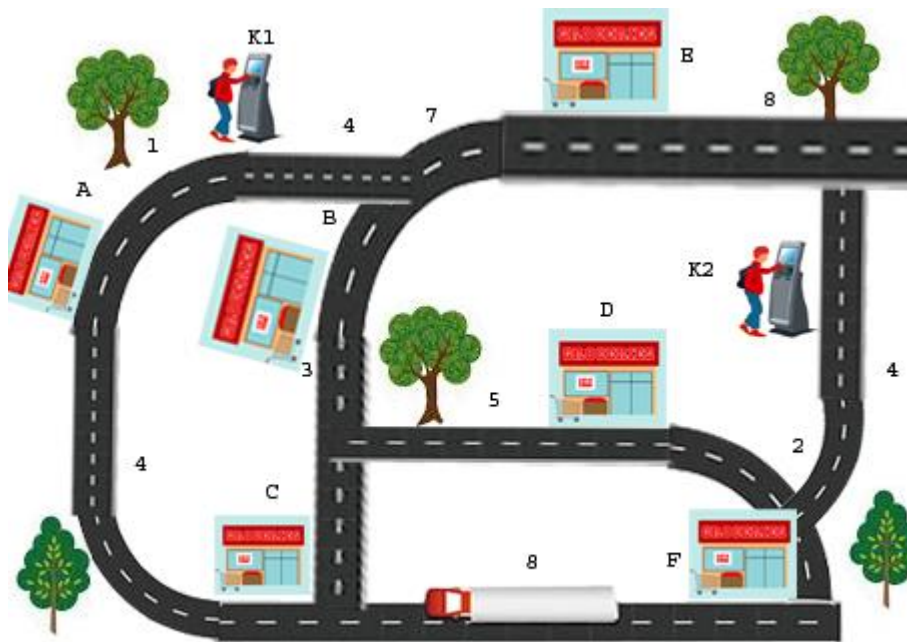
- KwikEMart

Item Name	Quantity
Lays	50
Cadbury	58
Tropicana	15
Oreo	11
Quaker Oats	64
Pringles	10
Cavin's	25
Kurkure	35
Monster	10
Cake	15

- Classic Grocers

Item Name	Quantity
Heinz	3
Oreo	13
Quaker Oats	93
Pringles	10
Sprite	12
Snickers	17
Pasta	16
Red Bull	3
Nestle	17
Bounty	40

### ➤ IMPLEMENTATION OF DIJKSTRA'S ALGORITHM



Dijkstra's algorithm is used to find the nearest shop from the kiosk being operated. If the user is utilising kiosk 1 in the above example then using the algorithm the nearest shop if the item is available will be shop A.

## BUDGET PLAN (APPROXIMATE COSTS)

### ➤ Initial investment

ITEM	COST PER ITEM	QUANTITY	TOTAL AMOUNT
Kiosk	12,000	10	1,20,000
Operating system	9,299	1	9,299
		<b>Total (in INR)</b>	<b>1,29,299</b>

### ➤ Recurring Costs

ITEM	COST PER ITEM	QUANTITY/ TIME VALIDITY(MONTHLY)	TOTAL AMOUNT
Electricity	9.95p per unit	21.6kW	21,600
Internet	-	Unlimited(1Gbps)	20,000
		<b>Total (in INR)</b>	<b>41,600</b>

## FUTURE SCOPE

- Can implement schemes for few customers or shops to get priority which will also act as a method to generate revenue.
- Kiosks can act as emergency service contact machines with quick links to police, ambulance and fire services.
- Users can also compare prices of the product among different shops in the vicinity.