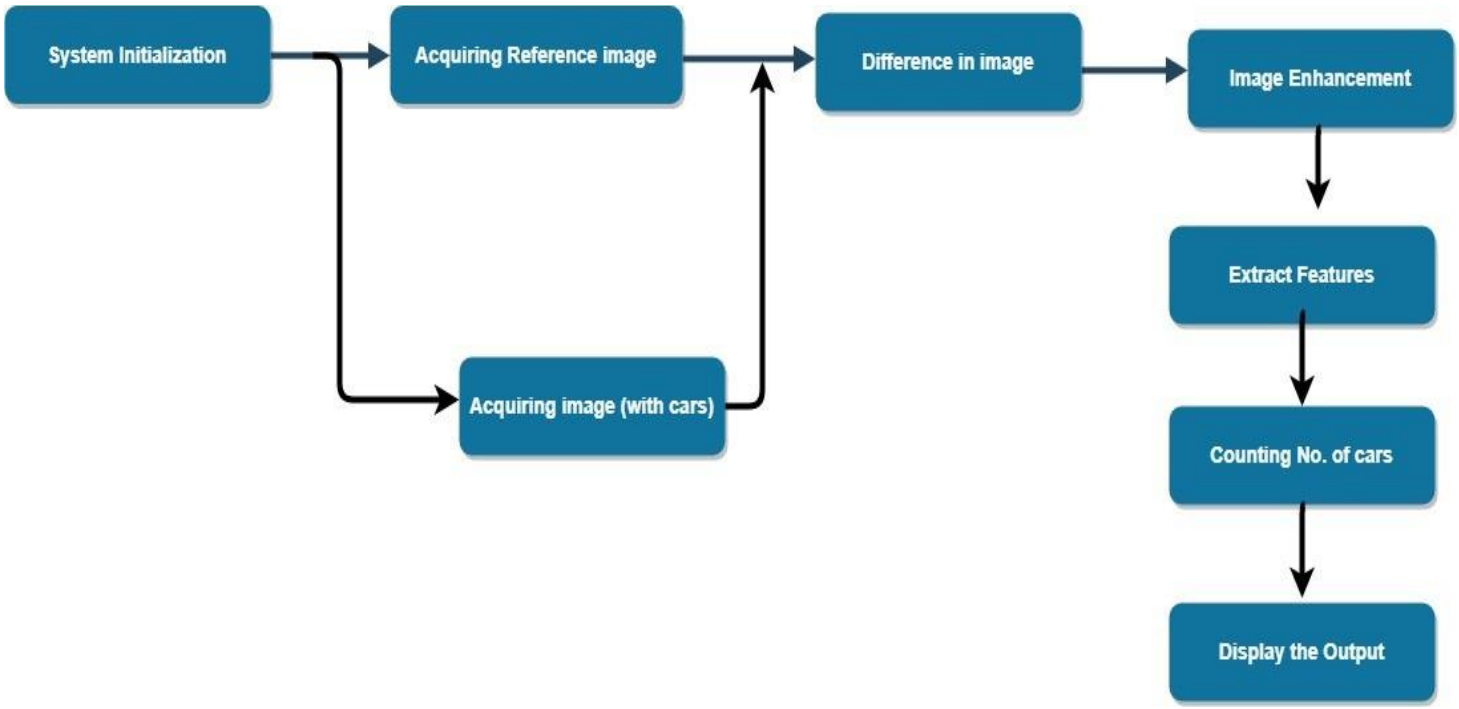
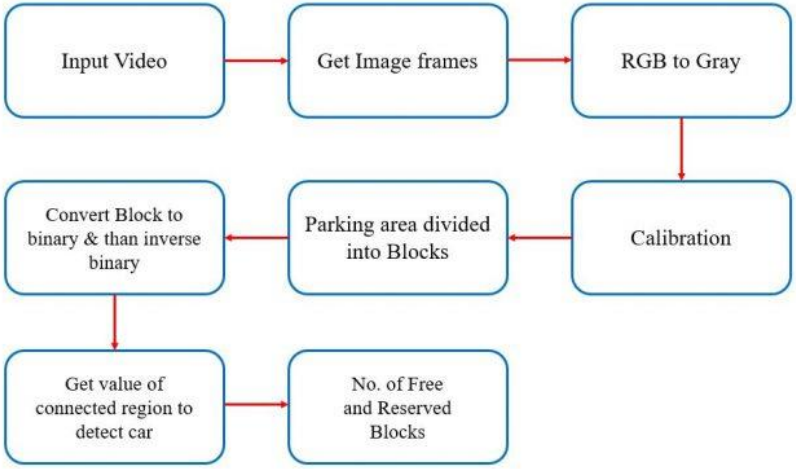
Project Design Phase-III
Data Flow Diagram & User Stories

Date	08 October 2022
Team ID	591691
Project Name	Ai Enable Car Parking Using OpenCV
Maximum Marks	4 Marks

Data Flow Diagrams (DFDs)

DFD serve as conventional, visual depictions of the flow of information within a system. A well-constructed DFD offers a concise and illustrative portrayal of the system's requisites. It effectively illustrates the pathways through which data is introduced into and extracted from the system, highlights the factors that influence the data, and indicates the specific locations where data is housed and manipulated.


System Initialization
Acquiring Reference image
Difference in image
Image Enhancement
Extract Features
Counting No. of cars
Display the Output
Acquiring image (with cars)


Input Video
Get Image frames
RGB to Gray
Calibration
Parking area divided into Blocks
Convert Block to binary & than inverse binary
Get value of connected region to detect car
No. of Free and Reserved Blocks

User Stories :

User type	Functional requirement	User story number	User story	Acceptance criteria	Priority	Release
Customer (Driver)	Registration	USN -1	As a driver, I want to be able to reserve a parking space so that I am guaranteed a spot when I arrive.	The reservation system must handle multiple reservation at same time	High	Sprint 2
		USN -2	As a driver ,When entering into parking lot should capture the details of car immediately and allot me free space	The algorithm should make these request and handle them to allot the free space instantly	High	Sprint-1
	Payment	USN-3	As a parking lot user, I want to able to pay for my parking spot using digital	Payment system need to be updated and to be charged from the time of the entry and exit by	High	Sprint - 3

			payment and checkout quickly	tracking its movements		
Administration (owner)		USN - 4	As a parking lot owner ,I want to be able to generate reports on parking lot usage so that I can make further decisions.	The reporting system can generate reports on parking lot usage by hours ,day ,,months	High	Sprint 3
Manager	Dashboard	USN -5	As a parking lot manager ,Want to be able to monitor the parking spaces in real -time.	System should provide real-time updates of parking slots and overview of available slots	High	Sprint-2
	History	USN-6	As a manager, I want to able to know the occupancy rate and payment history	System should provide access to the previous transactions and provide analytics	Medium	Sprint -2