CHAPTER 1

INTRODUCTION

Tracking all vehicles entering an organization area is a cumbersome process. That means counting number of vehicles, recording vehicle number plate details, entry and exit time etc. is impossible in heavy traffic. Parking slow is another issue. Now a days everyone has their own vehicles. All these vehicles have to be parked efficiently and effectively so as to avoid traffic jam with in the organization like shopping malls, colleges hospitals etc.

The search for an empty parking spot can become an agonizing experience for the city's urban drivers. A recent article claims that drivers cruising for a parking spot in SF generate 30% of all downtown congestion. These wasted miles not only increase traffic congestion, but also lead to more pollution and driver anxiety. In order to alleviate this problem, the city armed 7000 metered parking spaces and 12,250 garages spots (total of 593 parking lots) with sensors and introduced a mobile application called SFpark, which provides real time information about availability of a parking lot to drivers.

However, safety experts worry that drivers looking for parking may focus too much on their phone and not enough on the road. Furthermore, the current solution does not allow drivers to plan ahead of a trip. We wish to tackle the parking problem by (i) predicting the occupancy rate, defined as number of occupied parking spots over total number of spots, of parking lots in a given future time (ii) working on aggregated parking lots to explore if there is estimation error reduction pattern in occupancy prediction, (iii) classifying daily parking occupancy patterns to investigate different travel behavior at different time.

CHAPTER 2

TEST CASE

A test case, in software engineering, is a set of conditions under which a tester will determine whether an application, software system or one of its features is working as it was originally established for it to do. Test case document is also a part of test deliverables, by reading test case document stakeholders get an idea about the quality of test cases written and the effectiveness of those test cases. Stakeholder can also provide inputs about the current set of test cases as well as suggest some more missing test cases.

The ANPRS and POP system can be tested by placing the camera and the system in front of the entry gate of organization. When a vehicle enters the organization area through the entry gate, the system starts detection and processing.

TC_	Referenc	Featu	Test	Test Data	Test	Expect
ID	e to	re	Proced		Case	ed
	requirem	Teste	ure		Type	Result
	ent	d				
TC_	Use Case	Came	Run the	-	Basic	Camer
1	1	ra	test			a is
		Test	module			workin
			comma			g
			nd			properl
						у
TC_	Use Case	Syste	Run the	-	Basic	System
2	1	m	system			is
		Test	test			workin
			module			g
			comma			properl
			nd			у

Test TC_ Use Case Admi Admin Admin Admin Password: raju@123 TC_ Use Case Admi Admin Password: raju@123 TC_ Use Case Admi Admin Admin Admin Admin Password: ramu@123 TC_ Use Case Admi Admin Password: ramu@123 TC_ Use Case Regis Admin Admin Password: ramu@123 TC_ Use Case Regis Admin Password: manu@123 TC_ Use Case Regis Admin Name: radha Basic Admin Admin Name: radha Basic Password: radha@123	login Succes s Admin login succes s
Test TC_ Use Case Admi Admin	Admin login succes
TC_ Use Case Admi Admin	Admin login succes
TC_ Use Case Admi Admin	login succes s
4 2 n Dashbo Login ard Test TC_ Use Case Admi Admin Dashbo Login ard Test TC_ Use Case Regis Admin Dashbo Login ard Test TC_ Use Case Regis Admin Password: ramu@123 TC_ Use Case Regis Admin Password: manu@123 TC_ Use Case Regis Admin Password: manu@123 Name: Manu Mail Id: manu123@gmail.com Organization ID: 173 TC_ Use case Regis Admin Admin Admin Name: radha Organization ID: 173 TC_ Use case Regis Admin Password: radha@123 Name:Radha Name:Radha	login succes s
Login Test TC_ Use Case Admi Admin Password: ramu@123 TC_ Use Case Regis Admin Password: ramu@123 TC_ Use Case Regis Admin Password: manu@123 TC_ Use Case Regis Admin Password: manu@123 Name: Manu Mail Id: manu123@gmail.com Organization ID: 173 TC_ Use case Regis Admin Admin Admin Name: radha TC_ Use case Regis Admin Password: radha@123 TC_ Use case Regis Admin Password: radha@123 Name: Radha Name: Radha	succes s
Test TC_ Use Case Admi Admin	S
TC_ Use Case Admi	
5 3 n Dashbo • Password: ramu@123 TC_ Use Case Regis Admin ter Dashbo new admin • Admin name: manu Basic • Password: manu@123 • Name: Manu • Organization ID: 173 • Organization ID: 173 TC_ Use case Regis Admin new ard • Admin Name: radha Basic • Password: radha@123 • Name:Radha	A drasia
Login ard Test TC_ Use Case Regis Admin	Admin
Test TC_ Use Case Regis Admin	login
TC_ Use Case Regis Admin	Succes
6 1 ter Dashbo new ard admin	S
new ard • Name: Manu • Mail Id: manu123@gmail.com • Organization ID: 173 TC_ Use case Regis Admin • Admin Name: radha 6 2 ter Dashbo • Password: radha@123 • Name:Radha	New
admin admin Mail Id: manu123@gmail.com Organization ID: 173 TC_ Use case Regis Admin Admin Name: radha Basic Password: radha@123 new ard Name:Radha Name:Radha	admin
Organization ID: 173 TC_ Use case Regis Admin	Added
TC_ Use case Regis Admin • Admin Name: radha 6 2 ter Dashbo • Password: radha@123 new ard • Name:Radha	
6 2 ter Dashbo • Password: radha@123 • Name:Radha	
new ard • Name:Radha	New
1 - I valle. Radia	admin
admin • Mail id: radha123@gmail.com	added
Train is. India 125 Committee in	
Organization ID : 225	
TC_ Use case Regis Admin • Admin name: rema Basic	
7 def	New
new ard • Name: Rema	New admin
admin • Mail Id: rema123@gmail.com	
Organization ID: 073	admin

TC_	Use Case	Entry or Exit of vehicl	In front of camera	21 BH 0001 A	New vehicle Entry
TC_	Use Case	e Entry or Exit of vehicl e	In front of camera	Basic MH12DE1433	New vehicle Entry
TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic Of CC 1A WOT	New vehicle Entry
TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic	New vehicle Entry
TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic	New vehicle Entry

TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic	New vehicle Entry
TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic Www.drivespark	New vehicle Entry
TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic PH20DY2366	New vehicle Entry
TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic CG04MF2250	New vehicle Entry
TC_	Use Case	Entry or Exit of vehicl e	In front of camera	Basic Basic .	New vehicle Entry

TC_	Use Case	Entry	In front	TV 225	Basic	New
		or	of			vehicle
		Exit	camera	MHR26D05551		Entry
		of				
		vehicl				
		e				
TC_	Use Case	Entry	In front		Basic	New
		or	of			vehicle
		Exit	camera	P 688 CC		Entry
		of		Autospace SRL BM/ & WN Moldove (+973 27) 22 33 99		
		vehicl				
		e				
TC_	Use Case	Entry	In front		Basic	New
		or	of			vehicle
		Exit	camera			Entry
		of		WEZE 2017271		
		vehicl		•		
		e				
TC_	Use Case	Entry	In front		Basic	New
		or	of			vehicle
		Exit	camera			Entry
		of		DL 7CQ 1939		
		vehicl				
		e				
TC_	Use Case	Entry	In front	1	Basic	New
		or	of			vehicle
		Exit	camera			Entry
		of				
		vehicl		-MH01AV8866		
		e				
		<u> </u>				

TC_	Use Case	Entry	In front		Basic	New
		or	of			vehicle
		exit	camera			Entry
		of				
		vehicl		MR.09.CZ.4096		
		e				
TC_	Use Case	Entry	In front		Basic	New
		or	of			vehicle
		exit	camera	TN 37.05 2765		Entry
		of		TN 765		
		vehicl		. 5.		
		e				
TC_	Use Case	Entry	In front		Basic	New
10_	o se cuse	or	of		Busic	vehicle
		exit	camera			Entry
		of	Cumora			Zintry
		vehicl		MH 09 DR 5999		
		e				
TC_	Use Case	Entry	In front		Basic	New
		or	of			vehicle
		exit	camera	0		Entry
		of				
		vehicl		TN 43 L 1199		
		e		#		
				•		

CHAPTER 3

CONCLUSION

Test case document is a part of test deliverables, by reading test case document stakeholders get an idea about the quality of test cases written and the effectiveness of those test cases. Stakeholder can also provide inputs about the current set of test cases as well as suggest some more missing test cases. The test cases for Smart city parking are created or identified carefully. With this project, an effective method of identification of vehicle number plate is proposed which is less time consuming and applied to various types of pictures. Edges could be recognized here through the use of the SOBEL edge detection method, and also the holes are filled but with far less than 8 pixels. To retrieve the vehicle's number plate, we delete attached parts / pieces and under 1000 pixels. Our proposed set of computer instructions is mainly based on Indian car number plate scheme, the accuracy of extracting the number plate for low quiet mood can be increased, as well as we can detect the number plate that has different font size and also different font type.