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A Web Based Smart Parking Management System

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ABSTRACT: Getting Parking Booked for four wheeler two wheeler or any vehicle by just sitting at home now will be possible through our project to do vice versa by visiting the place and parking the vehicle is hectic now-a-days. So with the help of this website one can pre-book parking for his/her vehicle. The website will enable user to book parking online sitting at home at his own convenience before visiting the place. This will save the users time because no one like to wait for longtime in the lane for parking the vehicle.

KEYWORDS: PyCharm IDE (Python == 3.8), Django == 3.2.1, Eclipse IDEOracle Database (MySQL), HTML, CSS.

I. INTRODUCTION

Now-a-days there many peoples are facing parking issue at the shopping places malls, restaurant, etc. Because in the world not a single person is without vehicle, everyone has its own bike & car so people are waiting for a long-time in the lane for parking the vehicle. The best example is our pune this is the most favourite place for shopping people like to visit but there is long lane for parking the vehicle and lot of mess, the family goes for shopping are not so happyily but diffently with anger created by the parking issue. So are site is to efficient for this problem one can book the parking by just sitting at home and just go and park the vehicle it will save the time as well as waiting in the lane for long-time and especially the anger and can have the happy shopping time.

II. METHODOLOGY

Python

Python is an object-oriented, interpreted, high-level programming language. It has a high-level build in data structures that make it very attractive for R.A.D(Rapid Application Development), as well as for use as a scripting or glue language to connect existing components together. Python's syntax are easy to learn and it emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages code reuse. The Python extensive standard library is accessible in source or binary form for free of cost on major platforms.

Django

Django is a web application framework built with the base of Python. It allows us to easily create dynamic web apps using Python . First of all, you need to have Python installed on your computer. On MacOS, you don't need to install Python , unless you'd like to update it to the latest version. To check version of Python on your computer, type python –version on the terminal for MacOS and the command line for Windows.

HTML And CSS

HTML (Hyper Text Markup Language) is the universal markup language for the Web. HTML lets you format text, make graphical interfaces, create web-links, input and output forms, add and remove frames and tables, etc., and save it all in a file that any browser can execute and display.

CSS is used to control layout of multiple Web pages all at once. With CSS, all formatting can be detached from the HTML document and deposited in a separate file. CSS gives you total control of the web-page layout, without messing up the file contents.

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III. MODELING AND ANALYSIS

VP	ARK Gravity Grave		iome About Services	Pricing T	am Contact	Login	
		Address	Bay Area, San Francis	10, CA			
	Place	Vechile	Vechile No.	Entry	Exit	Total	
1	AJAX Mall, Street 5526	Four Wheeler	AI 3561	12:30pm	7:30pm	30rs	
2	Bird Santuary, Street 5326	Four Wheeler	AI 3561	12:30pm	7:30pm	30rs	
3	J&J icons, Street 5521	Four Wheeler	AI 3561	12:30pm	7:30pm	30rs	
		We are the official providers	ARK of parking: You can't park closer (a) (b) (c)				
		_	min Record			^ 10 <i>k</i>	
indes X	O Hi Q ⊘ My/holie × ⊗ My nuth/Desktop/Selecao/Login.tml	Fig 1. Ad	min Record			^ D &	0 -
indes X	😵 tuy inolie x 😵 My unti/Ocatop/Selecao/Login.html	Fig 1. Ad	min Record	Pricing To	sam Contact		0 -
C O File C/Users/w	😵 tuy inolie x 😵 My unti/Ocatop/Selecao/Login.html	Fig 1. Ad	Abot Services	ber Login	sam Contact		exe ⊪ea: () − 1 () − 1 () − 1

Fig 2. Login form

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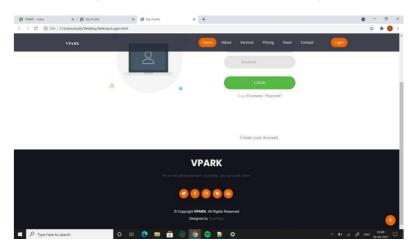


Fig 3. Home Page

v	PARK		Home About Serv	ices Pricing 1	feam Contact		
	-	Full Name	Gravity Grave				
	20	Email	fip@jukmuh.al				
	Y	Phone	(239) 816-9029				
	Gravity Grave	Mobile	(320) 380-4539				
	Garry Garro	Address	Bay Area, San Fran	icisco, CA			
	Place	Vechile	Vechile No.	Entry	Exit	Total	
1	AJAX Mail, Street 5526	Four Wheeler	AI 3561	12:30pm	7:30pm	30rs	
2	Bird Santuary, Street 5326	Four Wheeler	AI 3561	12:30pm	7:30pm	30rs	
3	J&J icons, Street 5521	Four Wheeler	AI 3561	12:30pm	7:30pm	30rs	

Fig 4. Personal info page

Figures: Some Screenshots of the website under development.

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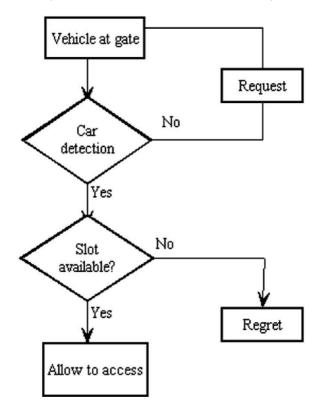


Figure : Block Diagram Displaying Internal Working .

Analysis: Working of the website in short.

- 1. Once a person opens the website a login page will appear, an old user can enter his/her credentials and proceed.
- 2. But a new customer has to create a new Account or ID for Booking the parking online .
- 3. Registration has to be done with help of valid mobile no. and OTP procedure.
- 4. After entering valid OTP, user will have to fill personal info as well as vehicle info(vehicle no, vehicle type, etc.)
- 5. Once done with the registration an account will be created for further use of user.
- 6. Now user can Start Booking parking at his/her place, at his/her time with just minimal cost.
- 7. Once the customer is in the website, he/she can see the vacant parking at the place they want to visit .
- 8. One can also book more than one parking for their different vehicle .
- 9. Then they have to just go and park their vehicle at their particular booked place.
- 10. The customer will be able to do easy payments through UPI transactions.

IV. RESULTS

It is implemented on web base application which is useful for Book a Parking online the website enables user to booked the parking just at their fingertip& they can cancel if they cancel the plan. The website assures users to get 100% safety and security of their vehicle & records would be handled by the admin. The user will be provided online token at their device for pre-booking of the parking.

V. CONCLUSION AND FUTURE WORK

This website has all the record with admin. Admin can see the details of every booked parking with the date and time. This website will provide easy pre-booking the parking just at their fingertip. This project is to develop a website that is efficient for this problem one can book the parking by just sitting at home and just go and park the vehicle

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it will save the time as well as waiting in the lane. The website will enable user to book parking online sitting at home at his own convenience before visiting the place.

1.

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