Auto Rikshaw Rental System

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***Abstract*- A major component of urban transportation in India is the autorickshaw. Legislators, the media, and the general public routinely attack autorickshaws and their drivers despite this service. Policies to address the perceived inadequacies of auto-rickshaws and their drivers are a topic of intense public debate in Indian cities. In order for the opinions of drivers, autorickshaw users, and the general traveling public to be more effectively taken into account when creating policy, we aim to add complexity and balance to this conversation. Towards this end, we critically address the critique and underlying ideas, highlight the unique role autorickshaws play in urban mobility, and provide an overview of the realities and economics of owning and managing an autorickshaw.**

***Keywords*— India, autorickshaws, urban transportation, operating economics, and transportation policy.**

I. INTRODUCTION

People can rent vehicle for a brief period of time through a rickshaw rental scheme. Through a dedicated rental station or a smartphone app, users can access these services. Usually, the system uses a digital platform for rickshaw reservations, payments, and vehicle location. For short distances, it offers a practical and adaptable form of transportation, supporting sustainable urban mobility. Typically, the rental procedure entails utilizing a mobile app or QR code to unlock the rickshaws, and users are billed according to how long they use the vehicle. The goal of this system is to provide an inexpensive and environmentally sustainable mode of transportation in cities.

II. LITERATURE REVIEW

Numerous study articles on the Auto Rickshaw System have been published in recent decades. This can be as a result of the growing popularity of autorickshaw demand prediction in the vehicle rental industry. For this study, we have examined and analyzed eight research articles that have been published during the last 20 years (2000–2020) and come from all around the world.

An overview of the literature on India's urban auto-rickshaw industry is provided in this study. Understanding the current condition of the industry, summarizing the major problems, and highlighting the gaps in the available research are the goals of this assessment. Numerous literature sources are examined, such as reports, case studies, white papers, research and conference papers, industry statistics, and more.

III. METHODOLOGY

A software process model is an abstract representation of a workflow. It gives a procedure's explanation. Process models may contain activities that are part of the software process. All software process models work on the five generic framework activities such as communication, planning, modelling, construction, and deployment. While the steps may be different, this sequential process gets followed in machine learning projects. The steps usually go something like this:

•Acquire data
•EDA
•Create features
•Define model
•rain model and tune hyper parameters
•Evaluate model and go back a few steps as needed Deploy mode.

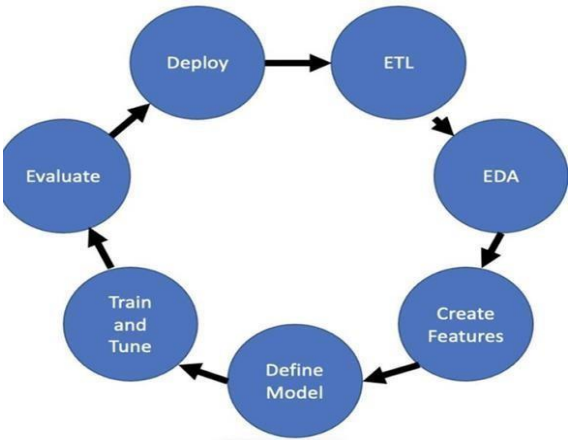

Figure 3.1 :- SDLC Model Created By Brandon Walker Published on Towards Data science

Requirements Gathering: This stage involves figuring out what is needed in order to rent an autorickshaw. Understanding user requirements, features, and any applicable regulations is necessary for this.

Design: Using the requirements gathered in the previous phase as a guide, the architecture and design of the model are created in this phase. Create a thorough design for the auto rickshaw rental system based on the information gathered. This comprises Visual Basic 6.0, Micro Soft Windows XP, and Data Visualization Tools.

Implementation: Using the design specifications as a guide, this phase involves actually coding and implementing the system. Provide features like driver allocation, payment processing, booking, and user registration.
Testing: carry out testing to find and fix any flaws or problems in the system. Unit testing is a part of this. System and integration testing are used to make sure the application is reliable.

Deployment: provide users with access to the developed auto-rickshaw rental system. Installing and configuring the system in the operational environment is the focus of this phase.

Maintenance: Give the system continuous assistance and upkeep. After deployment, take care of any problems, add updates or improvements, and make sure the system keeps working.

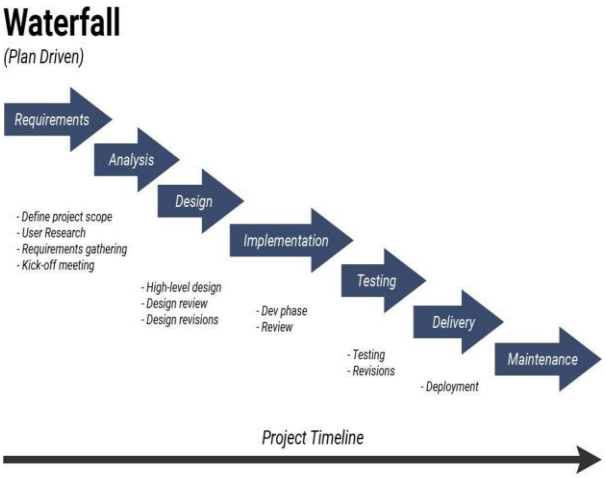

Figure 3.1 :- Waterfall Model
Waterfall Model By Dr. Winston W. Royce

IV. TECHNOLOGY USED

The technologies used in the development of the auto rickshaw rental system include:
•XAMPP Server
•Google chrome, Firefox, Internet Explorer
•Microsoft word for project documentation
•Query
•HTML
•PHP ·MYSQL

1. PHP: PHP is a server-side scripting language that may be used for general-purpose programming as well as web development. 2.1 million web servers and over 244 million webpages currently run PHP. The PHP Group currently produces the reference implementation of PHP, which was first developed by Rasmus Lerdorf in 1995. PHP is a recursive acronym that stands for PHP: Hypertext preprocess or, as opposed to its original meaning of Personal Home Page. A webserver equipped with a PHP processor module parses PHP code and creates the resulting web page: Instead of requiring the user to open an external file in order to handle data, PHP commands can be directly integrated within an HTML source document.

2. Web design: uses HTML, CSS, and JavaScript. It makes applying style to HTML tags easier for web designers. A style sheet language called Cascading Style Sheets (CSS) is used to specify how a document written in a mark up language should look and be formatted. The language can be used to any type of

XML document, including plain XML, SVG, and XUL, although it is most frequently used to style web pages and interfaces written in HTML and XHTML. CSS style sheets are a fundamental component of the web, and they define the presentation of nearly every webpage. The main purpose of CSS is to make it possible to separate document presentation—which includes things like layout, color scheme, and font selection—from document content.

3. MySQL : MySQL is a free-source database system that makes it possible to deliver dependable, perform and scalable Web-based and embedded database applications at a reasonable price. A relational database system is what it is (RDBMS). It is a very efficient application that can grow to accommodate user and data demands. Because MySQL is developed in C and C++, it works with the majority of operating systems that are out there.

4. XAMPP: On a home Windows PC, XAMPP is an integrated development environment that includes the Apache HTTP Server, MySQL Database, PHP, Mercury, PERL, or Python. A free web server is Apache. Open source MySQL is a database. I've been working with PHP 8.0.0, MySQL 15.1, Windows 7 and XAMPP version 3.2.4 on my project.

V. RESULTS

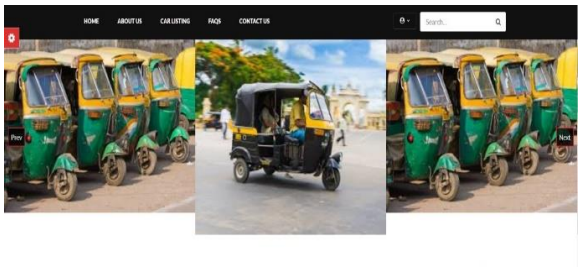

Figure Number 5.1: Home Page

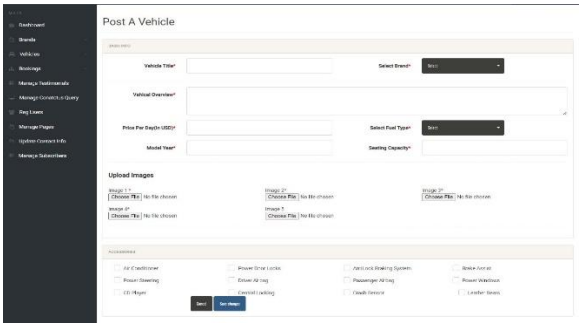

Figure Number 5.2: Post A Vehicle

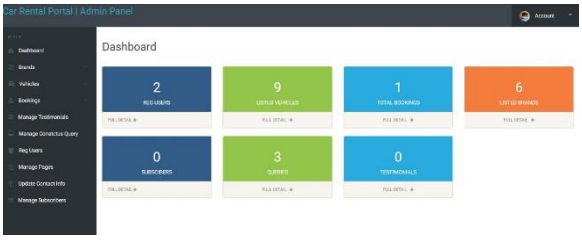

Figure Number 5.3: Admin Panel

VI. CONCLUSION

International In the conventional system, reservations for autorickshaws are made manually by visiting a designated auto-rickshaw stand and renting a vehicle; occasionally, this requires standing in large lines during peak hours. The traditional system is based on a number of disagreements between drivers and passengers, including overcharging, lack of availability, refusals on the part of the drivers to provide service, and refusals on the part of the passengers to pay.

The suggested system allows for auto booking through an Android application while seated at home, eliminating the need to visit a physical source location. There is no data loss because the information about drivers and passengers is kept on a server. Customers use this system to request rides, and drivers register their vehicles and provide the service using this app. In addition, a Google map showing the distance between the source and the destination is provided; the fare is computed based on this distance.

The time needed to travel to a fixed auto-rickshaw stand and then rent an automobile is decreased by the suggested system. When autorickshaws are booked online, passengers are less likely to complain about delays, refusals, and availability issues. The fare calculation method that takes into account the journey's duration and distance helps minimize complaints from both passengers and drivers about overcharging and passenger refusal to pay. As a result, there are generally fewer arguments between drivers and passengers, allowing for a more tranquil travel experience for all.

As we look to the future, the auto rickshaw rental system not only solves the transportation problems of today, but it also establishes the groundwork for an ecosystem of urban mobility that is more technologically sophisticated and sustainable. The project has an effect on how people commute, which

promotes economic growth and raises urban living standards.

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REFERENCE

[1] Dr. S.B. Kishor, Das Ganu, "DBMS and Oracle", 978-93-81660-08-9
[2] "MS Office 2007 in a Nutshell," by Sanjay Saxena, Vikas Publications, 2011, ISBN 978-81-259-5036-3
[3] "Microsoft Office 2007," Rutkosky, Seguin, and Audrey, BPB, ISBN-10:81-8333-228-5/13:978-81-8333-228-6
[4] **S**teve Brown, "Complete Idiot's Books: Visual Basic 6.0," ISBN 978-0789718129
[5] Das Ganu Prakashan, "Front End Development using Visual Basic," by Dr. S.B. Kishori 978-93-81660-0-5 ISBN
[6] "Mastering Visual Basic 6" by Evangelos Petroutsos, BPB, 2005, ISBN 81-7635-269-1.
[7] Complete Reference Visual Basic 6 by Moel Jerke, TMH, 2004; ISBN 0-07-463666-9.