**CLOUD BASED BUSS PASS SYSTEM**

*A Project Report submitted in partial fulfilment of the requirements for the award of the degree of*

**Bachelor of Technology**

**in**

Computer Science and Engineering

**by**

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**Declaration**

I hereby declare that the work which is being presented in the Mini Project “**Cloud Based Buss Pass System”,** in partial fulfilment of the requirements for Mini Project viva voice, is an authentic record of our own work carried under the supervision of **Mr. Vivek Sharma, Assistant Professor, Department of CEA.**

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**ABSTRACT**

Public transport especially buses are getting crowded day-by-day due to heavy demand of transport facility. Moreover the frequency of the buses are unregulated. Either the buses lines up at one time or buses get delayed for a long time. This kind of chaos is mainly due to irregular planning of bus intervals and not knowing the details of the amount of passengers expected at a time. Cloud is the best platform to implement this system as the storage is dynamic in cloud can be easily provided to people. The user’s renewal or registration can be done through credit card. In the manual system the user has to go on particular date and time. Initially users need to register with the application by submitting their details through online. The candidate can login with their username and password and renewal is performed. The renewal process is carried by paying the money using the credit card. The candidate can give their valuable feedback for further enhancement of this project.

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**CHAPTER-1**

**INTRODUCTION**

* 1. **Overview**

This system was intended to develop an application for U.S.R.T.C to perform functionalities like accessing the basic information of a student from educational institutions for authentication and provide Bus pass to a particular student without placing him/her in a queue for a long time.

Online Student Bus Pass Generation system is helpful to U.S.R.T.C by reducing the paper work, time consumption and makes a process of getting Bus pass as simple and fast.

* 1. **Objective**

Bus pass system is a web application for students to get bus passes through online. Before this application implementation the manual process is used to do the process of issuing the bus pass to the passenger. This manual process requires man power and is more time consuming. To avoid such difficulties we implemented this system.

The key components of bus pass system is

1. Bus pass generation
2. Bus pass renewal
   1. **Organisation of the Project**

* In the next chapter the technology review is defined which includes terms like HTML, CSS, PHP, JavaScript, AWS.
* In the next chapter we deal with the data modeling diagram. It includes the various data flow diagrams, use case diagram etc.
* The following chapter implementation which includes all the output screens.
* The next chapter deals with the software testing.
* Final chapter has the conclusion part.

**CHAPTER-2**

**TECHNOLOGY REVIEW**

**2.1 HTML**

**HTML** stands for **Hyper Text Markup Language**, which is the most widely used language on Web to develop web pages. **HTML** was created by Berners-Lee in late 1991.

**HTML** is a MUST for students and working professionals to become a great Software Engineer especially when they are working in Web Development Domain. I will list down some of the key advantages of learning HTML:

* You can create a website or customize an existing web template if you know HTML well.
* If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.
* If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.
* Once you understands the basic of HTML then other related technologies like javascript, php, or angular are become easier to understand.

**2.2 CSS**

**Cascading Style Sheets** (**CSS**) is a stylesheet language. CSS is one of the core languages of the **open web** and is standardized across Web browsers. CSS is used to style and lay out web pages — for example, to alter the font, colour, size, and spacing of your content, split it into multiple columns, or add animations and other decorative features. The name cascading comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.

**2.3 PHP**

The PHP Hypertext Preprocessor (PHP) is a programming language that allows we developers to create dynamic content that interacts with databases. PHP is basically used for developing web based software applications.

PHP is a must for students and working professionals to become a great Software Engineer especially when they are working in Web Development Domain. PHP is a server side

scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites.

It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.

**2.4 JAVASCRIPT**

JavaScript is a programming language that adds interactivity to your website (for example games, responses when buttons are pressed or data is entered in forms, dynamic styling, and animation). JavaScript itself is fairly compact yet very flexible. Developers have written a large variety of tools on top of the core JavaScript language, unlocking a vast amount of extra functionality with minimum effort. These include:

* Browser Application Programming Interfaces (APIs) — APIs built into web browsers, providing functionality like dynamically creating HTML and setting CSS styles, collecting and manipulating a video stream from the user's webcam, or generating 3D graphics and audio samples.
* Third-party APIs — Allow developers to incorporate functionality in their sites from other content providers, such as Twitter or Facebook.
* Third-party frameworks and libraries — You can apply these to your HTML to allow you to rapidly build up sites and applications.

**2.5 AMAZON WEB SERVICES**

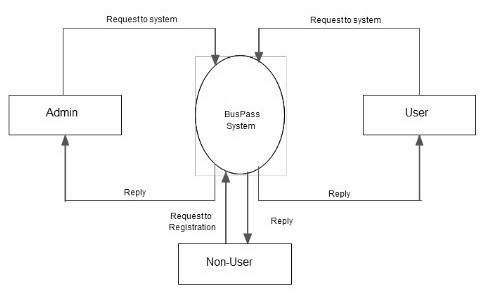
**Amazon Web Services** (**AWS**) is a subsidiary of Amazon that provides on-demand cloud computing platforms and APIs to individuals, companies, and governments, on a metered pay-as-you-go basis. In aggregate, these cloud computing web services provide a set of primitive abstract technical infrastructure and distributed computing building blocks and tools. One of these services is Amazon Elastic Compute Cloud, which allows users to have at their disposal a virtual cluster of computers, available all the time, through the Internet.

**CHAPTER-3**

**DATA MODELING DIAGRAM**

**3.1 Data Flow Diagram:**

A DFD also known as ‘bubble chart’, has the purpose of clarifying system requirements and identifying those transformations. It shows the flow of data through a system. It is a graphical tool because it represents a picture. The DFD may be partitioned into levels that represents increasing information flow and functional details.



**Fig.3.1 0-level DFD**

ONLINE BUS PASS SYSTEM
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4.1.2 1stLevel DFD
USER SIDE:
 

**Fig. 3.2 1-level DFD**

**3.2 Use Case Diagram:**

Use Case Diagram gives a graphic overview of the actors involves in the system, different functions needed by those actors and how these different functions are interacted.

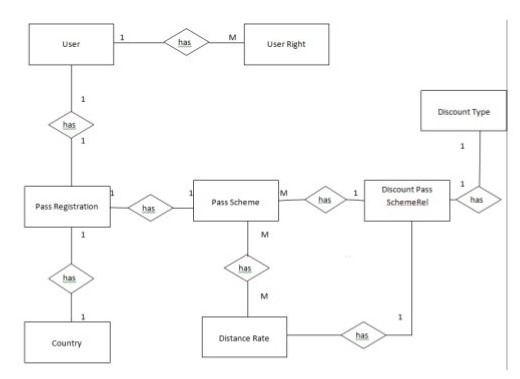
The purpose of this is to capture the dynamic aspect of a system. However, this definition is too generic to describe the purpose. Use Case Diagrams are used to gather the requirements of a system including internal and external influences. These requirements are mostly design requirements.

ONLINE BUS PASS SYSTEM
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4.2 USE CASE DIAGRAM
4.2.1 Use case Diagram for User
 

**Fig. 3.3 Use Case Diagram**

**4.3 E-R Diagram:**

Entity relationship diagrams are used in software engineering during the planning stages of the software project. They help to identify different system elements and their relationships with each other. In the diagram, the information inside the oval shapes are attributes of a particular entity.



## 

## CHAPTER-4

## IMPLEMENTATION AND USER INTERFACES

In this chapter we describe the various interfaces in the project like user interfaces, software interfaces and hardware interfaces. In the end output screens are shown depicting various screens in the system.

**4.1 User Interfaces:**

User interface is a part of software and is designed in such a way that it is expected to provide the user inside of the software. The UI provides fundamental platform for human-computer interaction. UI can be graphical, text based, audio-video based, depending upon the underlying hardware and software combination.

**4.2 Software Requirements:**

3.1.a Front End: HTML, CSS, JavaScript

3.1.b Back End: PHP, Cloud Shell

3.1.c Operating System: Windows 10

**4.3 Hardware Requirements:**

3.2.a Processor: Intel CORE i5

3.2.b Hard Disk: 64 bits

3.2.c RAM: 8 GB

**CHAPTER-6**

**TESTING**

**CHAPTER-7**

**CONCLUSION**

Bus pass Registration and Renewal System Project is a real time project which is useful for the people who are facing problems with the current manual work of bus pass Registration and renewal. It also increases the validity period, frequently Warns to the student before completion of his validity period by website. His / Her Renewal or Registration can be done using a voucher or even by a credit card. This online bus pass registration application will help students save their time and renewal bus passes without standing in a line for hours near counters. Initially people need to register with the application by submitting details of photo, address proof, and required details and submit through online. They will verify your details and if they are satisfied they will approve bus pass. You can even renewal using credit card or other wire transfer methods.

**CHAPTER-8**

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