A Project Report On

PMT BUS PASS SYSTEM

BY

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A Project Report by,

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We are thankful to **HOD "Ms. Joyti Kanse-Malusare" mam** (Project Guide also) for her support, cooperation, and motivation provided during the Study of project.

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Introduction

PMT_Pass is web-based tool which helps people renewing and registering the bus pass online. The Online Bus Pass System is made for to automize the current process of bus pass, the user can get the pass by online instead of go to the bus stop and stand in a queue.

This System is designed by keeping in mind both users and it allows users to register their details with the system, and then it allows user to use this software to the system after logged in successfully.

This is faster way than old system. This site can be accessed throughout the world with proper login provided. This system can be used for newly registration for passes, renewing old passes etc. This system reduces time and provides proper management.

Problem Definition

Now days Public transport is increasing. Most of the people like working women, working men, students, preferring to use public transports like bus. So issue passes for bus instead of buying ticket every day, makes easy to travel and saves money.

But to issue passes we have to go in bus depot and we have to stand in queue as well as we have to suffer for validation of our documents.

So, to reduce these efforts this system is designed.

Need of the System

People must go to the bus depot and stand in a queue for getting the pass as well as renew the bus pass. If someone leaving in rural area then he/she have to travel to respective area's / village's depot to issue pass. This is so time consuming process, so there is need of new system which reduces unnecessary efforts and make it easy. There is no facility for the online payment.

The current system is manual system in which transport user has to go to the bus depot for getting the pass as well as renew the pass.

The proposed system is design in such a way that overcomes all the problems of current system.

Scope of the Proposed System

- The proposed system is design in such a way that overcomes all the problems of current system
- User can renew the pass by online from their home instead of going physically to the bus depot and stand in a queue.
- User can get pass from any depot.
- Students can pay the payment by online /offline.

Requirement Analysis

Requirement analysis produces in the specification of software operational characteristics:

It indicates software interface with other system element.

It establishes constraint that should accomplish.

- Requirement analysis provides information, function & behavior that can be translated into architectural interface & component level design.
- This translation is performed during construction of analysis model.
- It includes:
    - It decides and adds all important function which is maintained in the requirements.
    - It decides and adds important function which is not maintained in the requirements, but it is essential to build.

It defines all interfaces of the software to be developed

- **Software Requirements**

Operating System : Windows, Linux or Further

Languages : Java, HTML

Front End : Java script.

Platform : Java

Web Servers : Glassfish Server

Backend : Postgres SQL

- **Hardware Requirements**

Processor : Pentium III or Any Advanced Processor

RAM : 256 MB or More

Hard disk : 40 GB or more

Feasibility Study

Preliminary investigation examine project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economical Feasibility

3.1. Technical Feasibility

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipment have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?

- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security

Earlier no system existed to cater to the needs of 'Secure Infrastructure Implementation System'. The current system developed is technically feasible. It is a web based user interface for audit workflow at NIC-CSD. Thus it provides an easy access to the users. The database's purpose is to create, establish and maintain a workflow among various entities in order to facilitate all concerned users in their various capacities or roles. Permission to the users would be granted based on the roles specified. Therefore, it provides the technical guarantee of accuracy, reliability and security. The software and hard requirements for the development of this project are not many and are already available in-house at NIC or are available as free as open source. The work for the project is done with the current equipment and existing software technology. Necessary bandwidth exists for providing a fast feedback to the users irrespective of the number of users using the system.

3.2. Operational Feasibility

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

This system is targeted to be in accordance with the above-mentioned issues. Beforehand, the management issues and user requirements have been taken into consideration. So there is no question of resistance from the users that can undermine the possible application benefits.

The well-planned design would ensure the optimal utilization of the computer resources and would help in the improvement of performance statu

3.3. Economic Feasibility

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economical feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

The system is economically feasible. It does not require any addition hardware or software. Since the interface for this system is developed using the existing resources and technologies available at NIC, There is nominal expenditure and economical feasibility for certain.

Data Dictionary

Database Name: PMT Pass

Table Name: admin_rejection_list

FieldName	DataType	Description
rejection_id	Varchar(10)	RejectionIDPrimaryKey Not Null
description_of_rejection	Varchar(200)	DescriptionOfRejection
application_form_id	Varchar(20)	application_form_id

Indexes:
"admin_rejection_list_pkey" PRIMARY KEY, btree (rejection_id)
Foreign-key constraints:
"admin_rejection_list_application_form_id_fkey" FOREIGN KEY (application_form_id) REFERENCES passenger_form(application_form_id) ON UPDATE CASCADE ON DELETE CASCADE

Table Name: passenger_form

FieldName	DataType	Description
application_form_id	Varchar(20)	NotNullPrimaryKey
passenger_name	Varchar(50)	PassengerName
full_address	Varchar(100)	FullAddress
passenger_dob	Date	PassengerDOB
bus_route_from	Varchar(50)	BusRouteFrom
bus_route_to	Varchar(50)	BusRouteTo
register_date	Date	RegisterDae
City	Varchar(30)	City
Gender	Varchar(8)	Gender
submit_status	Integer	SubmitStatus
payment_status	Integer	PaymentStatus
approve_status	Integer	ApproveStatus
Photo	Varchar(500)	Photo
aadhar_card	Varchar(500)	AadharCard
login_status	Integer	LoginStatus
passenger_id	Varchar(10)	Passenger_Id

Indexes:
"passenger_form_pkey" PRIMARY KEY, btree (application_form_id)
Foreign-key constraints:
"passenger_form_passenger_id_fkey" FOREIGN KEY (passenger_id) REFERENCES passenger_register(passenger_id) ON UPDATE CASCADE ON DELETE CASCADE

Referenced by:
TABLE "admin_rejection_list" CONSTRAINT "admin_rejection_list_application_form_id_fkey" FOREIGN KEY (application_form_id) REFERENCES passenger_form(application_form_id) ON UPDATE CASCADE ON DELETE CASCADE
TABLE "payment_details" CONSTRAINT "payment_details_application_form_id_fkey" FOREIGN KEY (application_form_id) REFERENCES passenger_form(application_form_id) ON UPDATE CASCADE ON DELETE CASCADE
TABLE "renew_pass" CONSTRAINT "renew_pass_application_form_id_fkey" FOREIGN KEY (application_form_id) REFERENCES passenger_form(application_form_id) ON UPDATE CASCADE ON DELETE CASCADE

Table Name: passenger_register

FieldName	DataType	Description
passenger_id	Varchar(10)	PrimaryKeyNotNull
passenger_name	Varchar(60)	Passenger_Name
email_id	Varchar(30)	EmailId
Phone_no	Varchar(10)	PhoneNo
Password	varchar(20)	Password

Indexes:
"passenger_register_pkey" PRIMARY KEY, btree (passenger_id)
Referenced by:
TABLE "passenger_form" CONSTRAINT "passenger_form_passenger_id_fkey" FOREIGN KEY (passenger_id) REFERENCES passenger_register(passenger_id) ON UPDATE CASCADE ON DELETE CASCADE

Table Name: payment_details

FieldName	DataType	Description
payment_id	Varchar(10)	PrimaryKeyNotNull
payment_amount	Double precision	PaymentAmount
application_form_id	Varchar(20)	ApplicationFormId

Indexes:
"payment_details_pkey" PRIMARY KEY, btree (payment_id)
Foreign-key constraints:
"payment_details_application_form_id_fkey" FOREIGN KEY (application_form_id) REFERENCES passenger_form(application_form_id) ON UPDATE CASCADE ON DELETE CASCADE

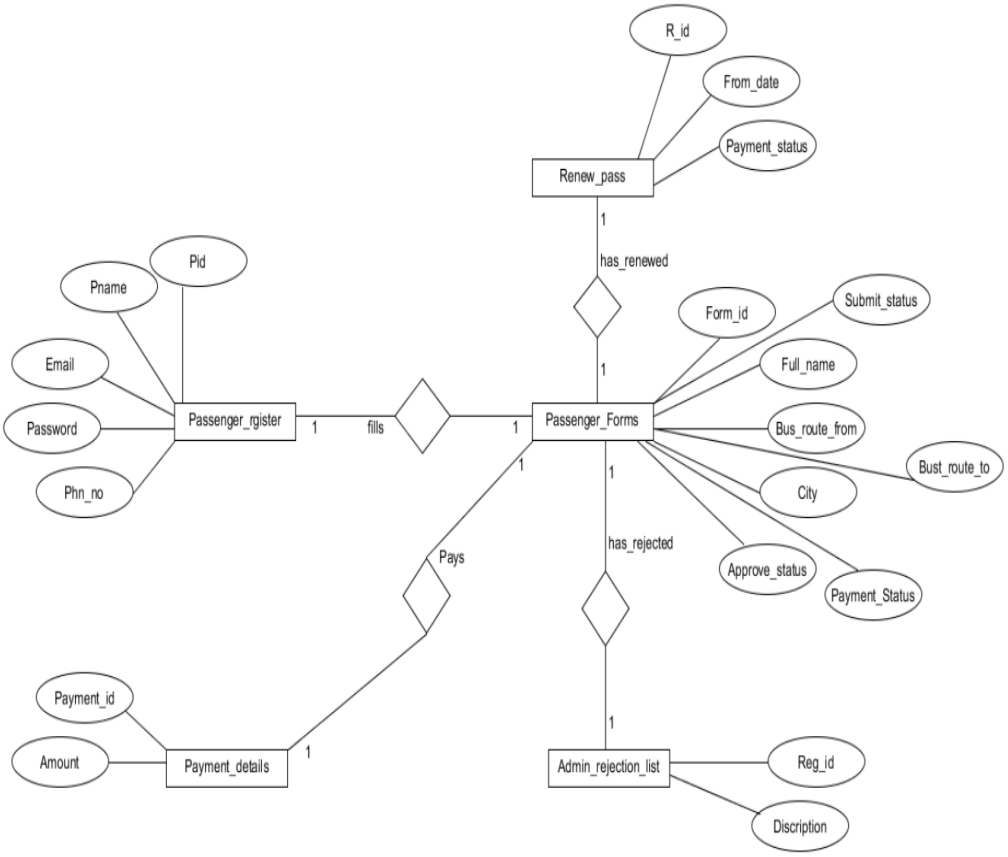
Table Name: renew_pass

FieldName	DataType	Description
renew_id	Varchar(10)	PrimaryKeyNotNull
from_date	Date	FromDate
payment_status	Integer	PaymentStatus
application_form_id	Varchar(20)	ApplicationFormId

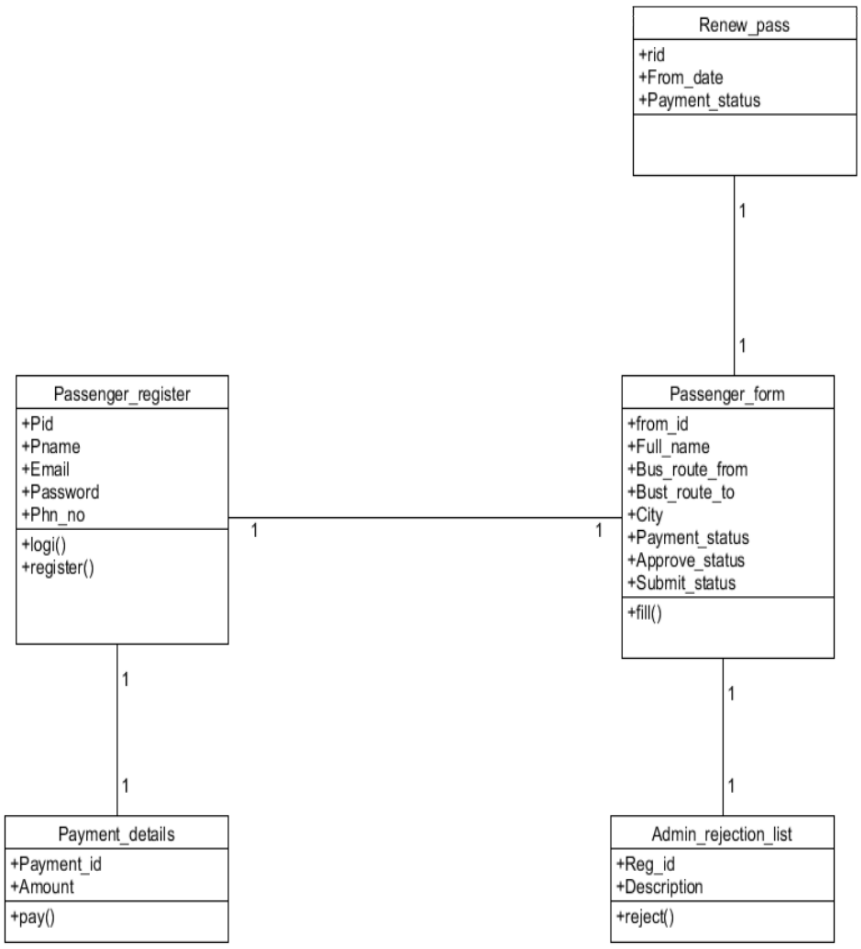
Indexes:
"renew_pass_pkey" PRIMARY KEY, btree (renew_id)
Foreign-key constraints:
"renew_pass_application_form_id_fkey" FOREIGN KEY (application_form_id) REFERENCES passenger_form(application_form_id) ON UPDATE CASCADE ON DELETE CASCADE

Diagrams

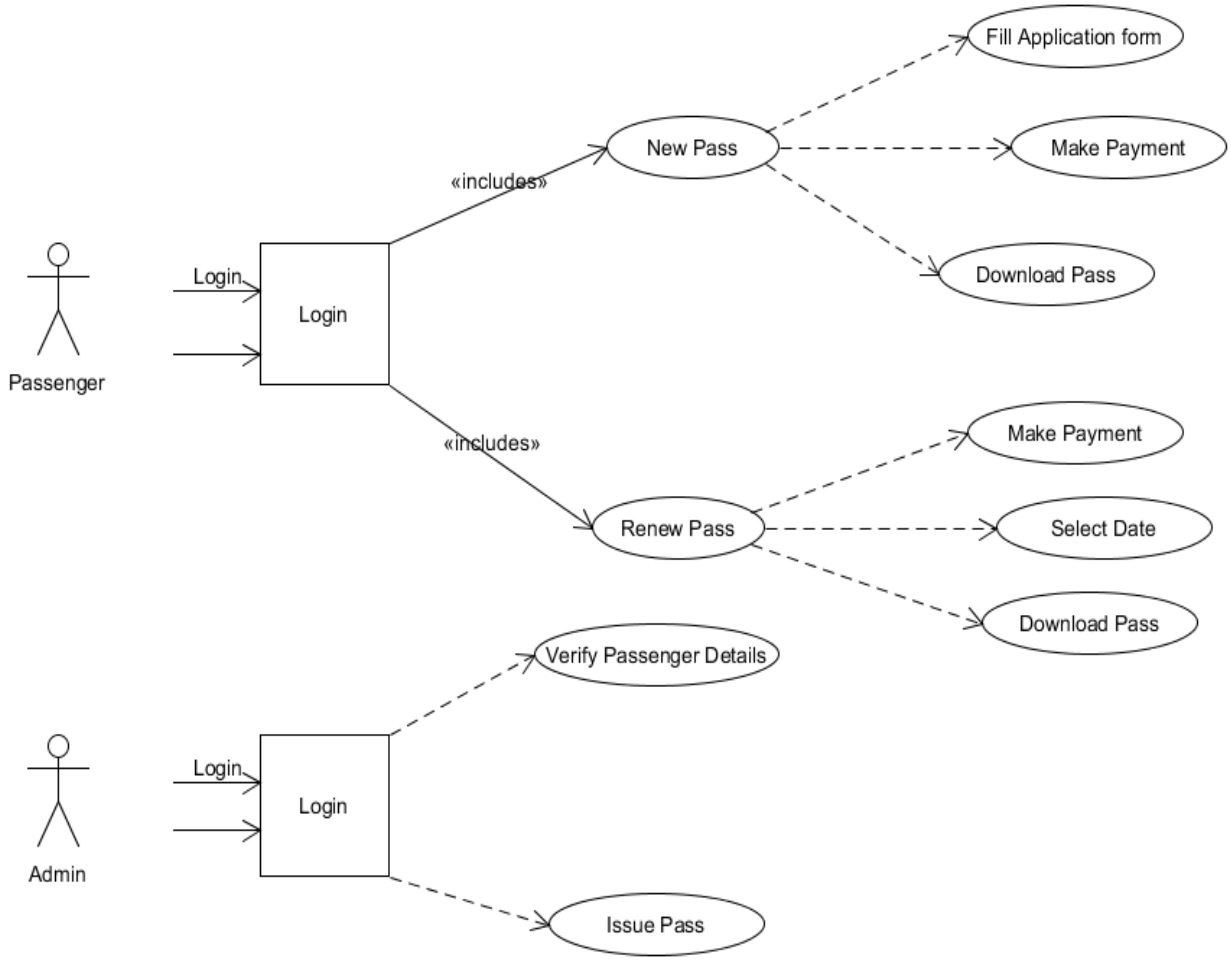
ER-Diagram:



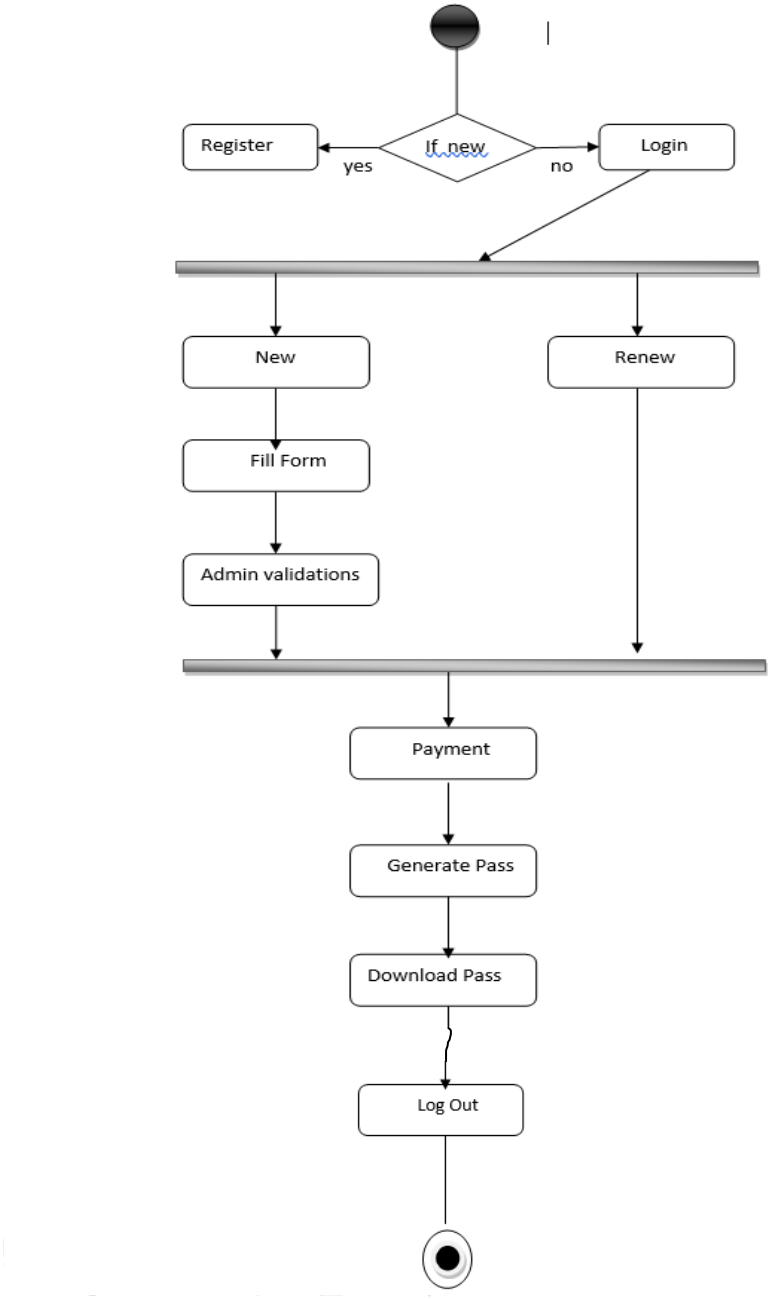
Class Diagram:



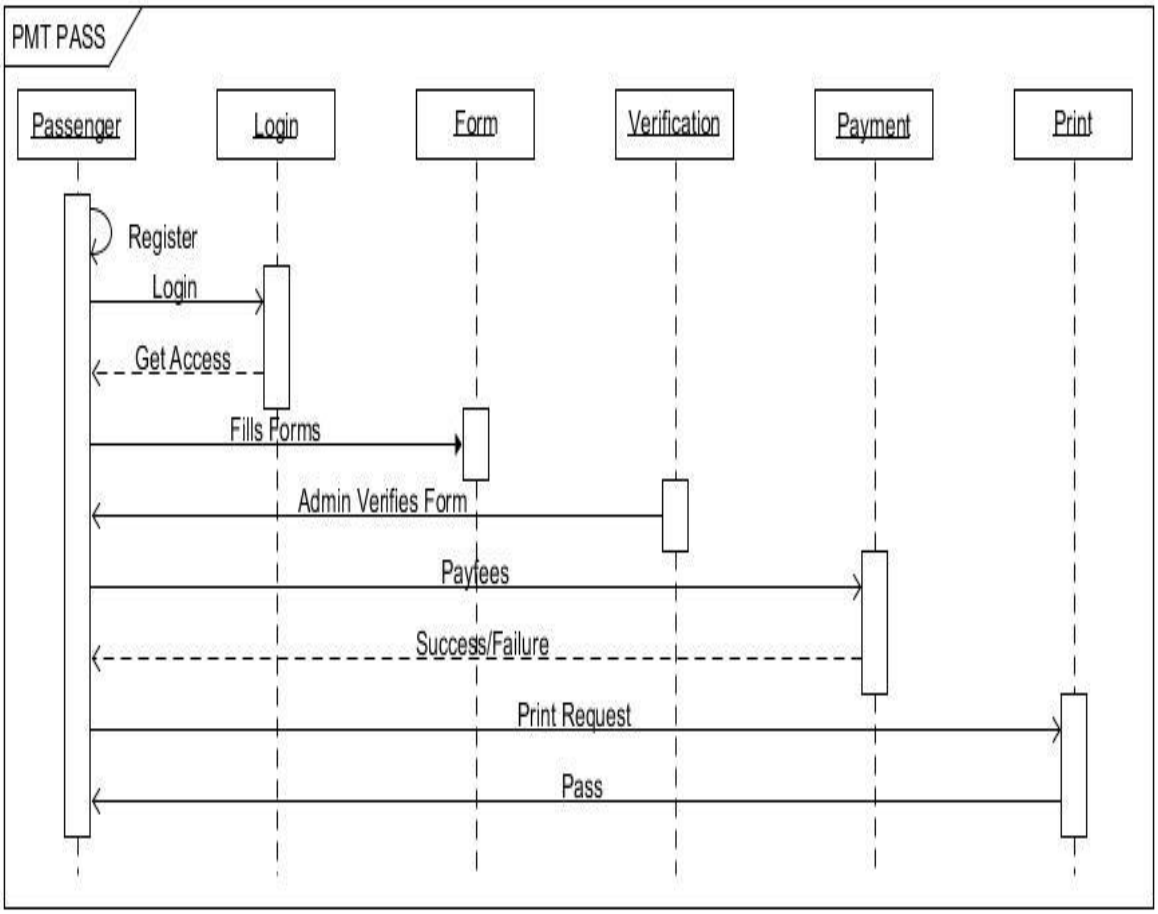
Use-Case Diagram:



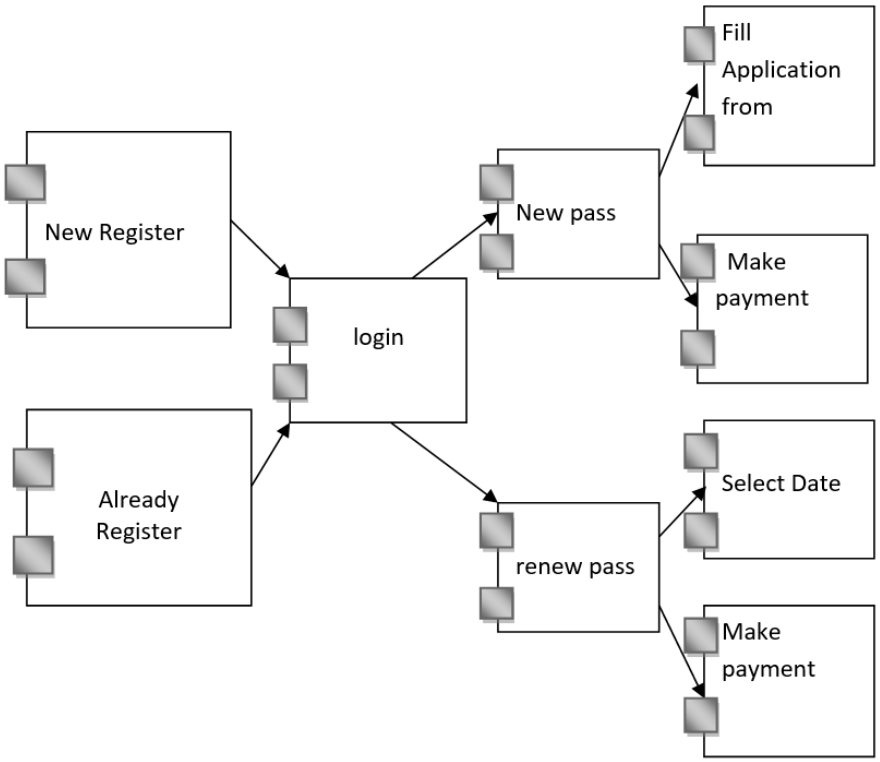
Activity Diagram:



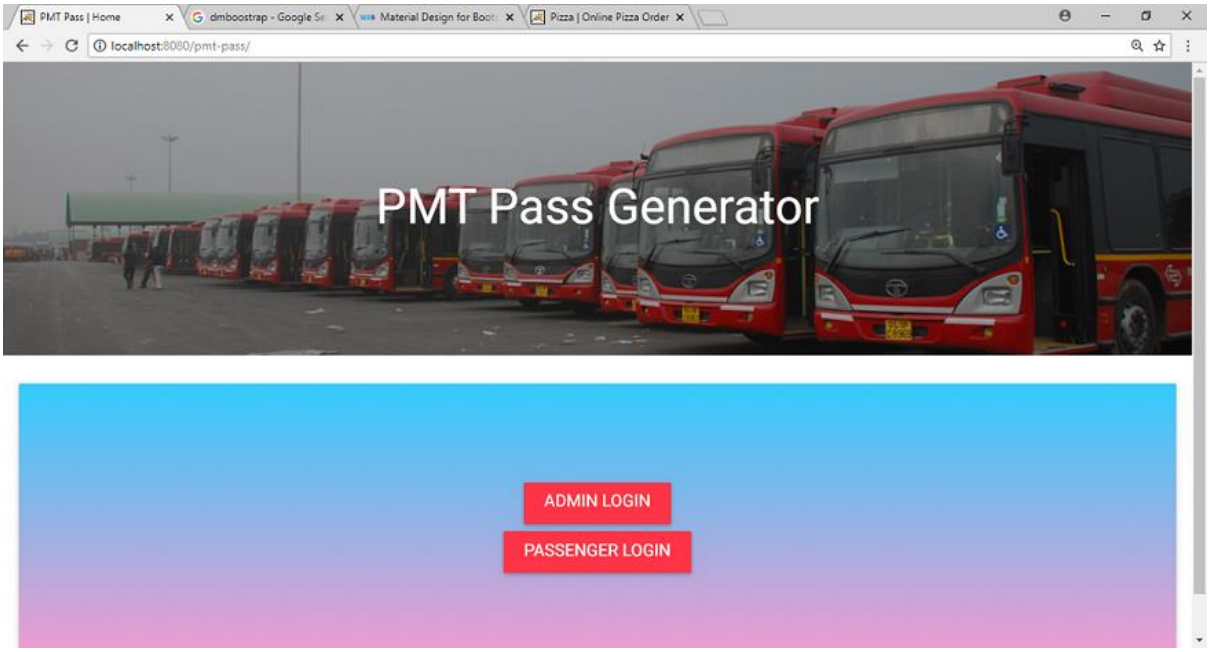
Sequence Diagram:

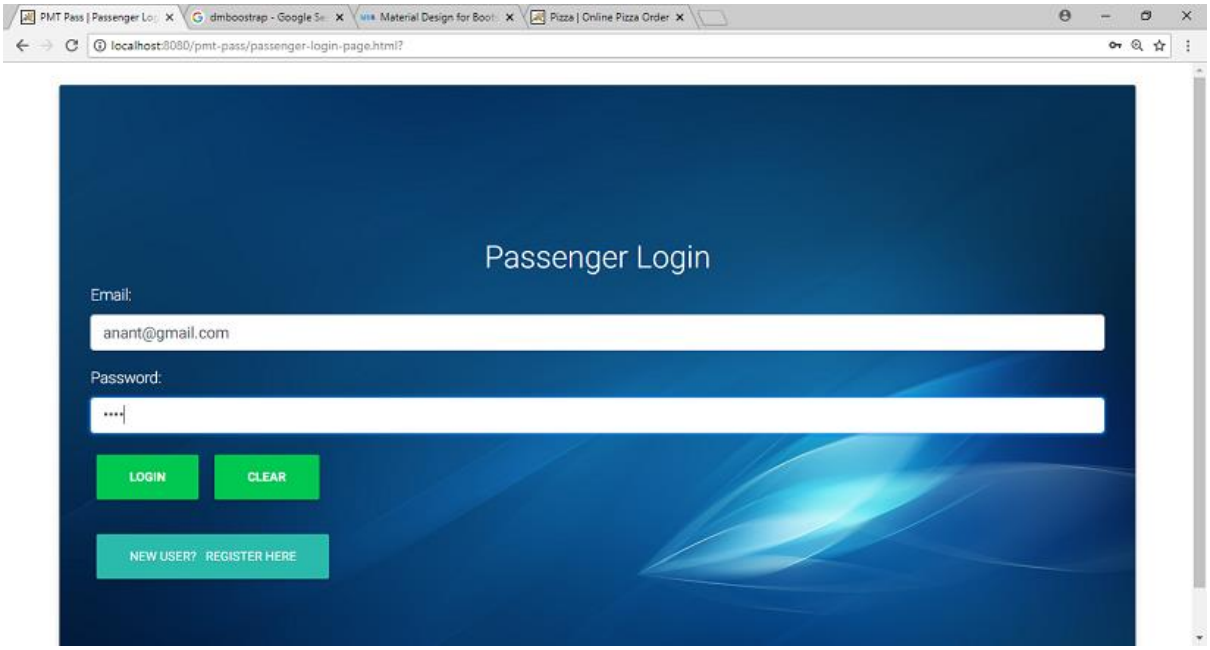


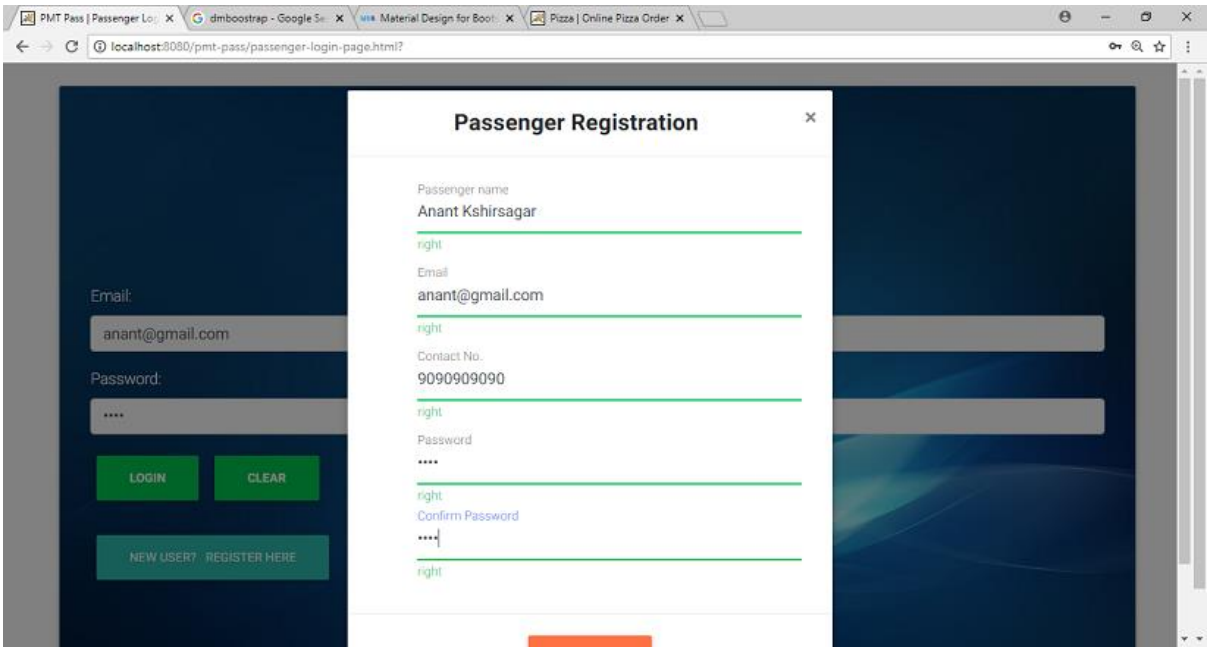
Component Diagram:

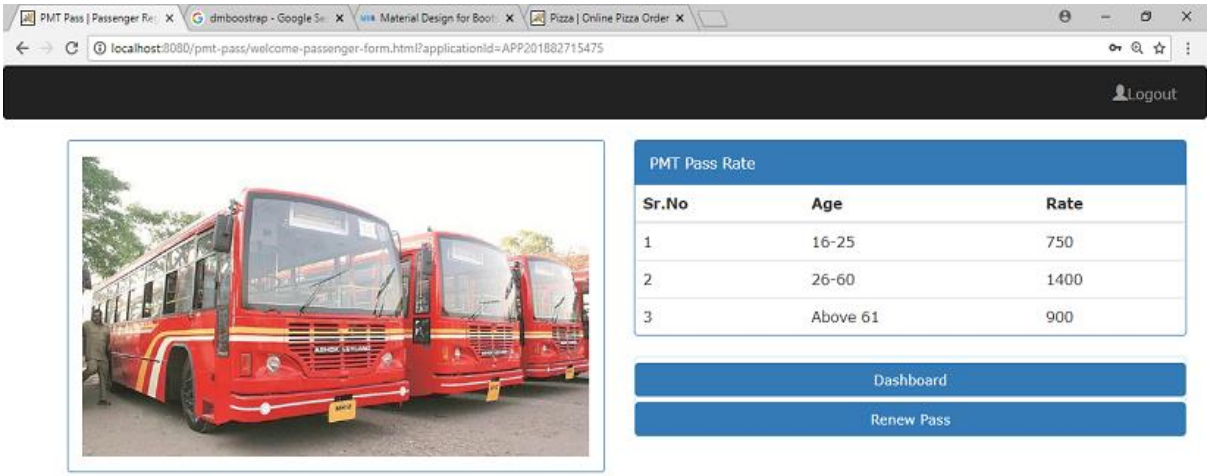


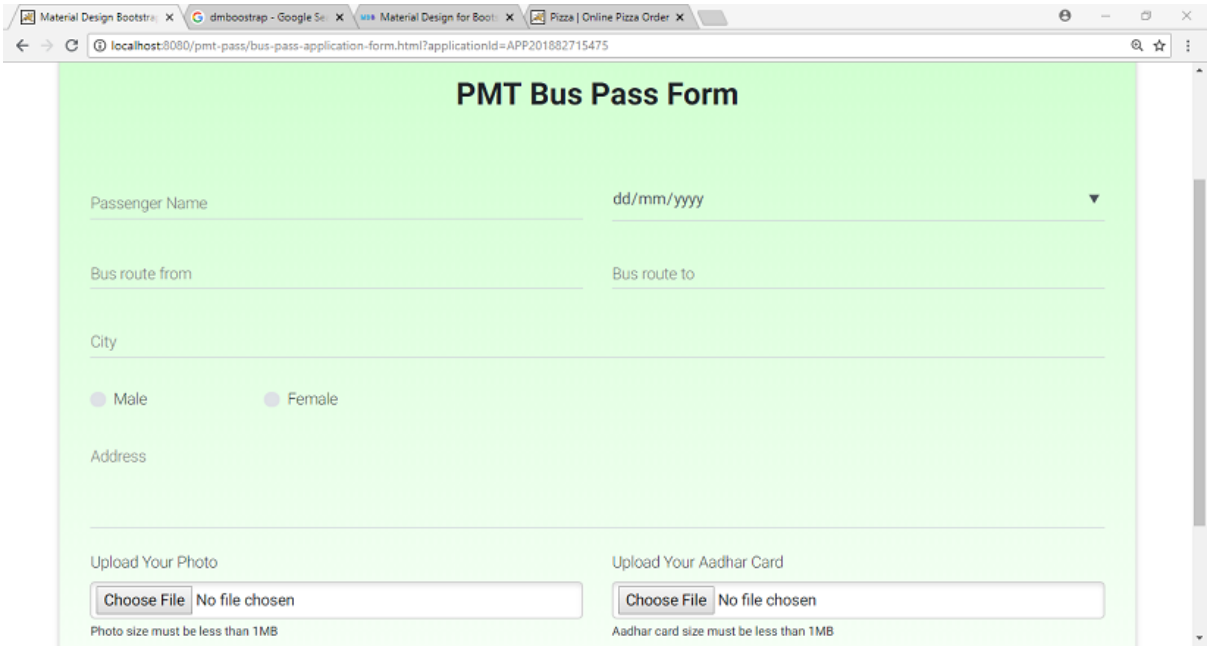
Screenshots

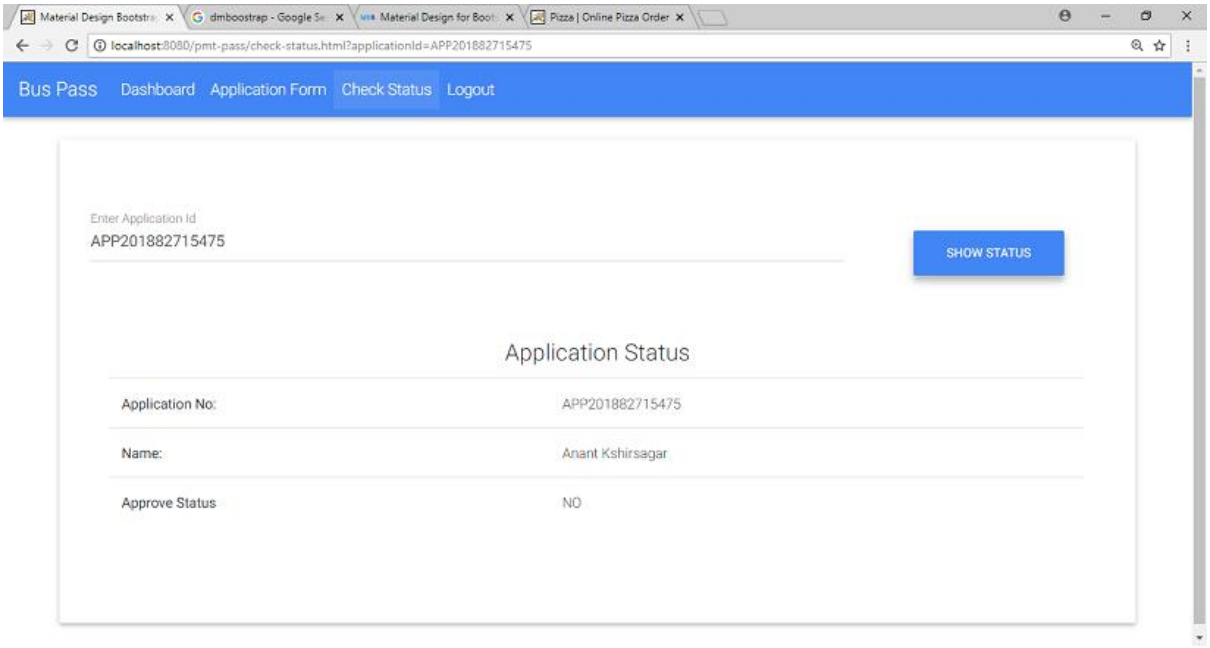



PMT Pass | Passenger Lo
dmboostrap - Google Se
Material Design for Boot
Pizza | Online Pizza Order
localhost:8080/pmt-pass/passenger-login-page.html?
Passenger Login
Email:
anant@gmail.com
Password:
LOGIN
CLEAR
NEW USER? REGISTER HERE


PMT Pass | Passenger Lo
dmboostrap - Google Se
Material Design for Boot
Pizza | Online Pizza Order
localhost:8080/pmt-pass/passenger-login-page.html?
Email:
anant@gmail.com
Password:
LOGIN
CLEAR
NEW USER? REGISTER HERE
Passenger Registration
Passenger name
Anant Kshirsagar
right
Email
anant@gmail.com
right
Contact No.
9090909090
right
Password
right
Confirm Password
right


PMT Pass | Passenger Re
dmboostrap - Google Se
Material Design for Boot
Pizza | Online Pizza Order
localhost:8080/pmt-pass/welcome-passenger-form.html?applicationId=APP201882715475
Logout
PMT Pass Rate
Sr.No
Age
Rate
1
16-25
750
2
26-60
1400
3
Above 61
900
Dashboard
Renew Pass


Material Design Bootstra
dmboostrap - Google Se
Material Design for Boot
Pizza | Online Pizza Order
localhost:8080/pmt-pass/bus-pass-application-form.html?applicationId=APP201882715475
PMT Bus Pass Form
Passenger Name
dd/mm/yyyy
Bus route from
Bus route to
City
Male
Female
Address
Upload Your Photo
Choose File
No file chosen
Photo size must be less than 1MB
Upload Your Aadhar Card
Choose File
No file chosen
Aadhar card size must be less than 1MB



System Testing

- The system was tested with usual test routines with the intent of finding an error to detect bugs and to test the quality of the software.
- There are three main kinds of system testing:-
- **Alpha testing** was conducted at the developer side by the end users.
- **Beta testing** was carried out by the selected group of friendly customers, conducted at the end user side.
- **Acceptance testing** was performed by the customer himself to determine whether the system should be accepted or rejected.
- The system begins its first test by **unit testing** one & only one unit is tested as such.

- Testing procedures were carried following the **Bottom-up testing approach**. According to the Bottom-up approach each unit is tested as and when it developed. This units are combining into modules are also individually tested. And finally all the modules are integrated to form the entire system.
- **Integrated testing** is then performed on this developed system.
- An entire code is return in java. The system is object oriented. Thus the entire code is encapsulated into classes so it was easy to perform the testing procedure system was developed progressively taking one module at a time. Finally when all the modules were ready they were integrated to form the entire system.
- Finally when all the modules were integrated and the entire system was ready, I/Otesting ,performance testing and stress testing was carried out to test for all the conditions, exception handling capabilities, etc.
- **Input/output testing** was carried to check whether the system generated consistent files of the desired format. Also Input / Output testing helped to confirm whether the files were successfully uploaded at the server or downloaded from the server.

Limitations

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- Training for simple computer operations is necessary for the users working on the system.

- Cyber-crimes are increasing day by day, so advance data security is needed to implement.

Future Enhancement

- This System being web-based and an undertaking of Cyber Security Division, needs to be thoroughly tested to find out any security gaps.
- Cyber-crimes are increasing day by day, so advance data security will be implemented in future.
- More searching options will be provided to the employer (company) in the future.

Bibliography

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- HTML & Web Designing

ONLINE REFERENCE: