

**D.K.T.E. Society's Textile and Engineering Institute,
Ichalkaranji.**

(An Autonomous Institute, Affiliated to Shivaji University, Kolhapur)

Accredited with 'A+' Grade by NAAC

Department of Computer Science & Engineering

2020-2021



Promoting Excellence in
Teaching, Learning & Research

THE SRS AND DESIGN DOCUMENT ON

Development of an Bus Pass System

**Under The guidance of
Mrs. Jayamala pakhare
Ma'am**

DEVELOPED BY:

- | | |
|-------------------------------|-----------------|
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CERTIFICATE

This is to certify that,

1.Dhairyashil Shinde.	19UCS122
2.Gajashree Teke.	19UCS129
3.Gouri Sonavane.	19UCS127
4.Pritesh Shetty.	19UCS121

Have successfully completed the SRS and Design work, of the mini project part-II
entitled,

Development of a Bus pass system

In partial fulfillment for S.Y.B.Tech. CSE academics. This is the record of their work carried
out during academic year 2020-2021.

Date: 19/5/2021

Place: Ichalkaranji

Mrs.J.pakhare.

[PROJECT GUIDE]

[EXTERNAL EXAMINER]

Prof.Dr.D.V.Kodavade

[HOD]

Prof.Dr.P.V.Kadole

[DIRECTOR]

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INTRODUCTION

As technology is growing fast ,so we need to update ourselves to be in touch with new technology.

The current process of bus ticketing is very slow and tedious process. Customer needs to stand in long queue for issuing bus pass in bus depot which is time consuming &this process is hectic to employees in the depot as well as user.

In addition, this system lets the customer avoid the hassle of paying in pennies, thus it is convenient . The project is designed to provide on efficient solution of maintaining bus pass information using a bar-code. The system has two logins one for user and other for admin. user can refill their account and extend the validity every time the pass expires. Admin can view all user's details& balance through its login. Every users pass will be having a bar-code that contain user information & validity of pass.

This software keeps al information of all bus passes, pass validity & tickets for etc. It will help passenger to get bus pass online &eliminate the need to stand in queues for passes or collecting a ticket for each journey.

PROBLEM STATEMENT

To develop a bus pass with bar-code scan system. It provides facility to maintain bus pass information and for user to extend validity when the pass expires.

PROBLEM DESCRIPTION

The bus pass with bar-code scan system automates the conventional process of buying the tickets and standing in long queue for extending validity for their pass.

The system has two logins one for user and other for admin. User can refill their account and extend the validity every time the pass expires. Admin can view all users balance and detail through login. Every user pass will have a bar-code that contains user information and validity of pass. Thus while travelling user just have to get their scanned using scanner and conductor can view the pass validity.

REQUIREMENT SPECIFICATION

1) Functional Requirements

NO.	Requirement	Essential/Desirable	Description of the Requirement	Remarks
RS1	The system should have login	Essential	When the system is opened a welcome page arrives this welcome page should have login.	
RS2	The system should lock id if wrong password is entered in 5 times.	Essential	This feature will improve the robustness of application.	Since the application contains information of passengers regarding validity of their pass & location it is necessary.
RS3	The system should have help screens	Essential	Help about various features of the system should be provided in detail in Q & A format.	The leave policy should also be part of help.

RS4	The system should provide date of application of pass and the location for which pass created.	Essential	This feature will make the system accurate as this feature can be used by passengers to update with their pass validity.	
RS5	System should provide the way to update or renew the pass.	Essential	This feature will provide passengers to update the location in case or if their validity expires & they want to renew pass.	This feature becomes essential for passengers in case they want to renew their pass.
RS6	System should provide the period of validity of pass.	Essential	This feature will make the passengers aware of their last date of validity pass.	
RS7	Passenger should be able to change the password.	Essential	This feature increases robustness of system.	If passengers want to secure their account they can change password.
RS8	Admin should be able to check profile & validity of passengers.	Essential	The system should allow admin to check validity of passengers so that admin can inform passengers to update regarding validity.	

RS9	System should provide the payment option in case the user renews his pass.	Essential	System gives options to user to make payment by his/her choice.	Payment is done by user.
RS10	System should have logout page.	Essential	After updating/renewing / checking the validity of pass, their should be logout page so that user can close his id.	This is essential to protect ones id from possibilities of malpractices.

2) Non Functional Requirements

1. Feedback to system by user.
2. The application should be reliable and it should generate all updated information in correct order.
3. Application will be available and working properly for 24hours.
4. The application will be available in all language.

3) Hardware Requirements

Description	Alternatives(If available)
PC with 5GB hard-disk and 512 MB RAM	Not-Applicable
Bar code scanner	Not applicable

4) Software Requirements

Number	Description	Alternatives(If available)
1	Windows 7/8/10 with MS-Office	Not Applicable
2	MS-SQL server/Oracle	MS-Access
3	Linux	Not Applicable
4		

REQUIREMENT ANALYSIS

RA1. User has to choose login options. There are two options available

1. Create new account.
2. Sign in to existing account.

If user choose new account, system will provide form. Following details user have to fill

1. Passenger name
2. Passenger email id
3. Passenger phone number
4. Passenger Aadhar number
5. Passenger Address
6. Passenger Bank detail

RA2. Login to system

1. For Login into the system customer must provide his/her password and id correctly.
2. The customer name password is checked with credentials present in the database.
3. If entered id password matches with the store password and ID then login access is granted.
4. If customer enters ID and password doesn't match then display message as user ID or password do not match.
5. If the field for customer ID and password is empty and customer click on login then display messages as "please enter username and password".

RA3. Lock user

1. If customer enters wrong ID or password three times then customer will be locked.

RA4. If user chooses the help option after choosing it console display the description of each facility.

RA5. If admin wants to add information about bus pass then system should accept it.

RA6. After adding or updating the new services, system strength should not be break.

RA7. Client can have options for payment Following are payment mode:

1. Credit card
2. Debit card
3. Money transfer
4. Online payment

RA8. To generate bus pass.

To generate bus pass following details need to be considered

1. Pass
2. Validity of pass

RA9. Take payment.

Payment should be received successfully.

RA10. Take feedback.

Feedback should be received.

Stakeholders

User

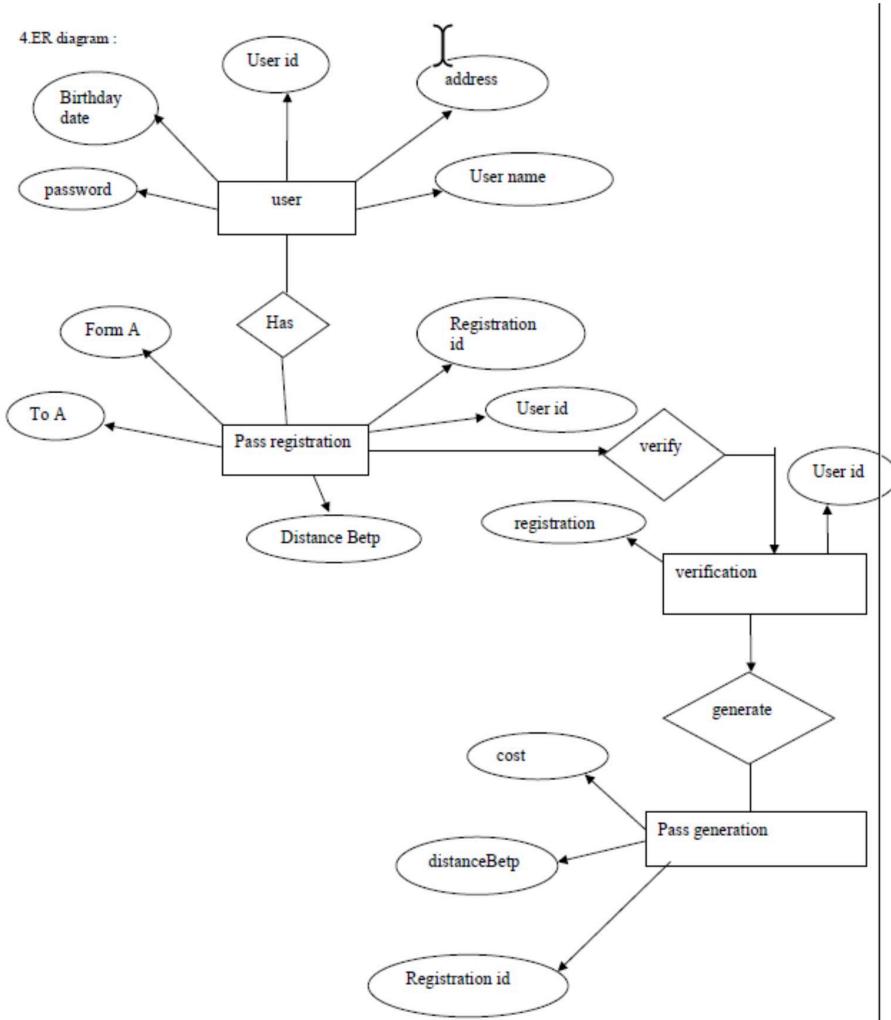
- i) I should be able to Register in system as passenger
- ii) I should be able to login to the system
- iii) I should be able to View my profile
- iv) I should be able to Update Personal information
- v) I should be able to Upload documents
- vi) I should be able to do Payment
- vii) I should be able to Request for issuing Bus Pass
- viii) I should be able to give Feedback about service

Admin

- i) I should be able to login to the system
- ii) I should be able to View my profile
- iii) I should be able to Update Personal information
- iv) I should be able to accept the Request for issuing Bus Pass
- ix) I should be able to check the Validity of passenger's bus pass
- x) I should be able to Authenticate the System
- xi) I should be able to Search particular passenger's profile
- xii) I should be able to do Changes in system
- xiii) I should be able to Update the System.

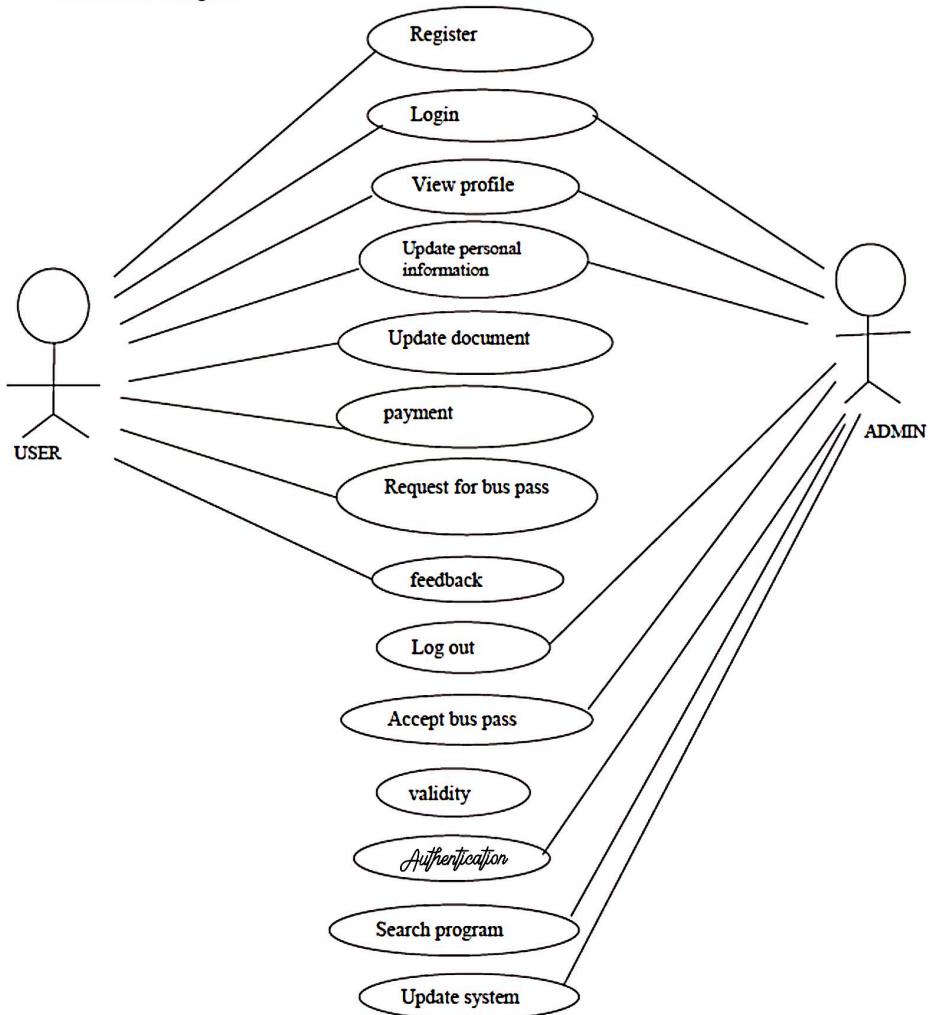
SYSTEM DESIGN

Architecture Diagram

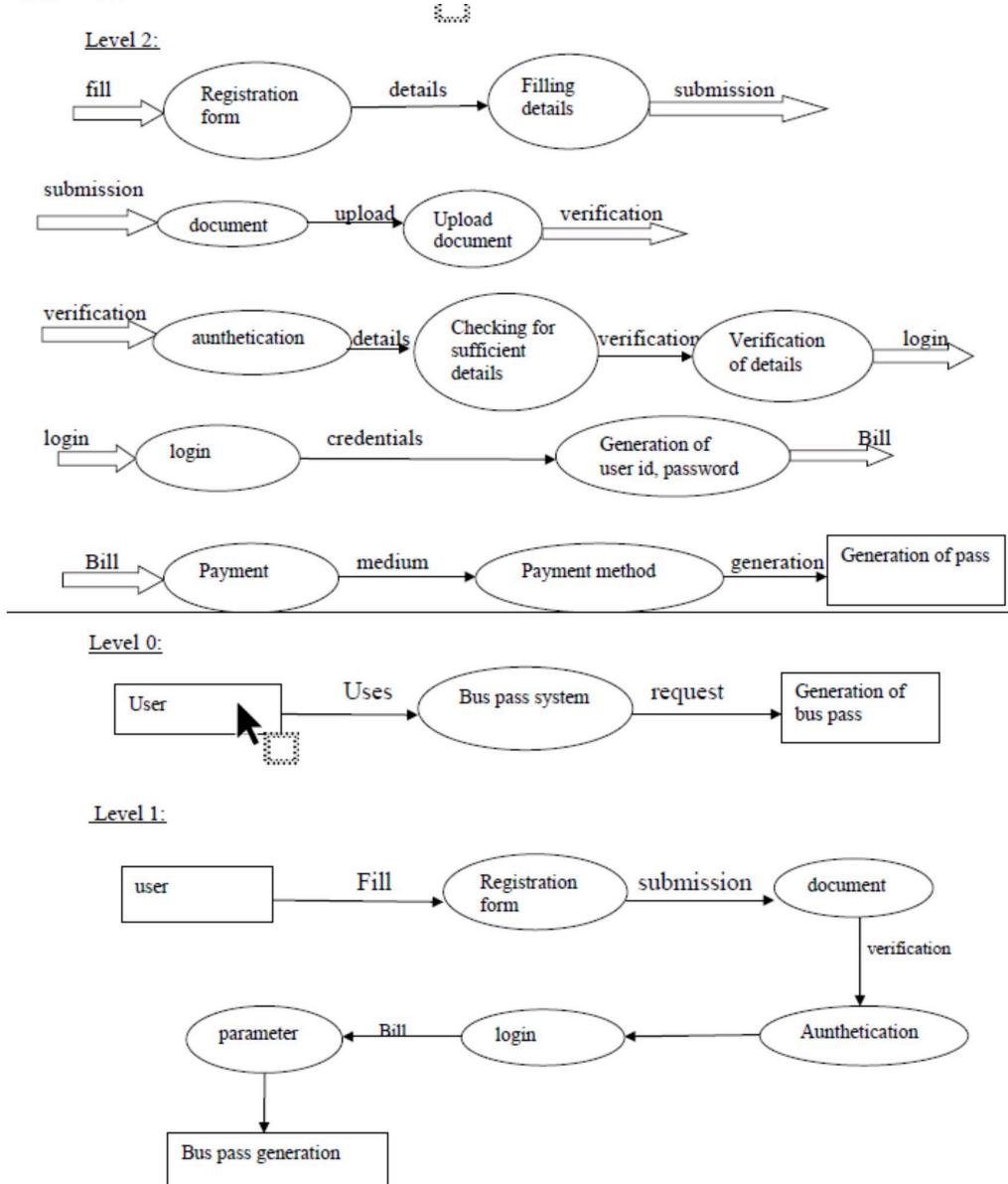


a) User Case Diagram

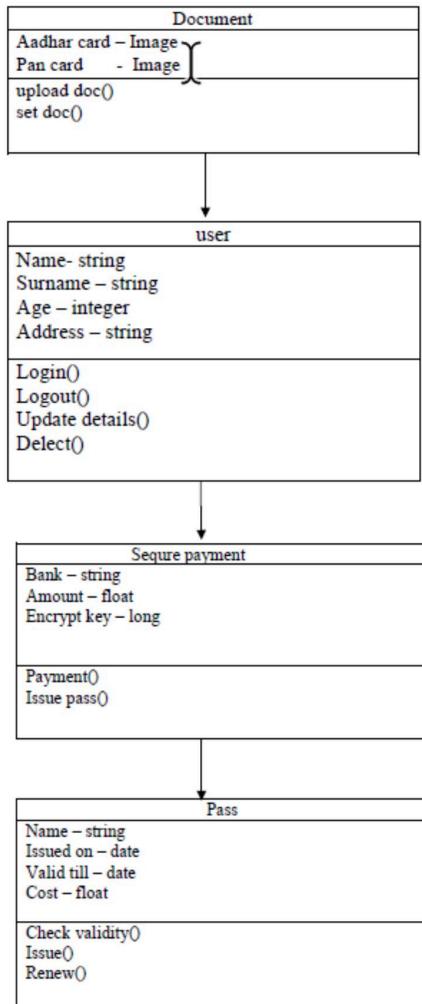
1. Use case Diagram



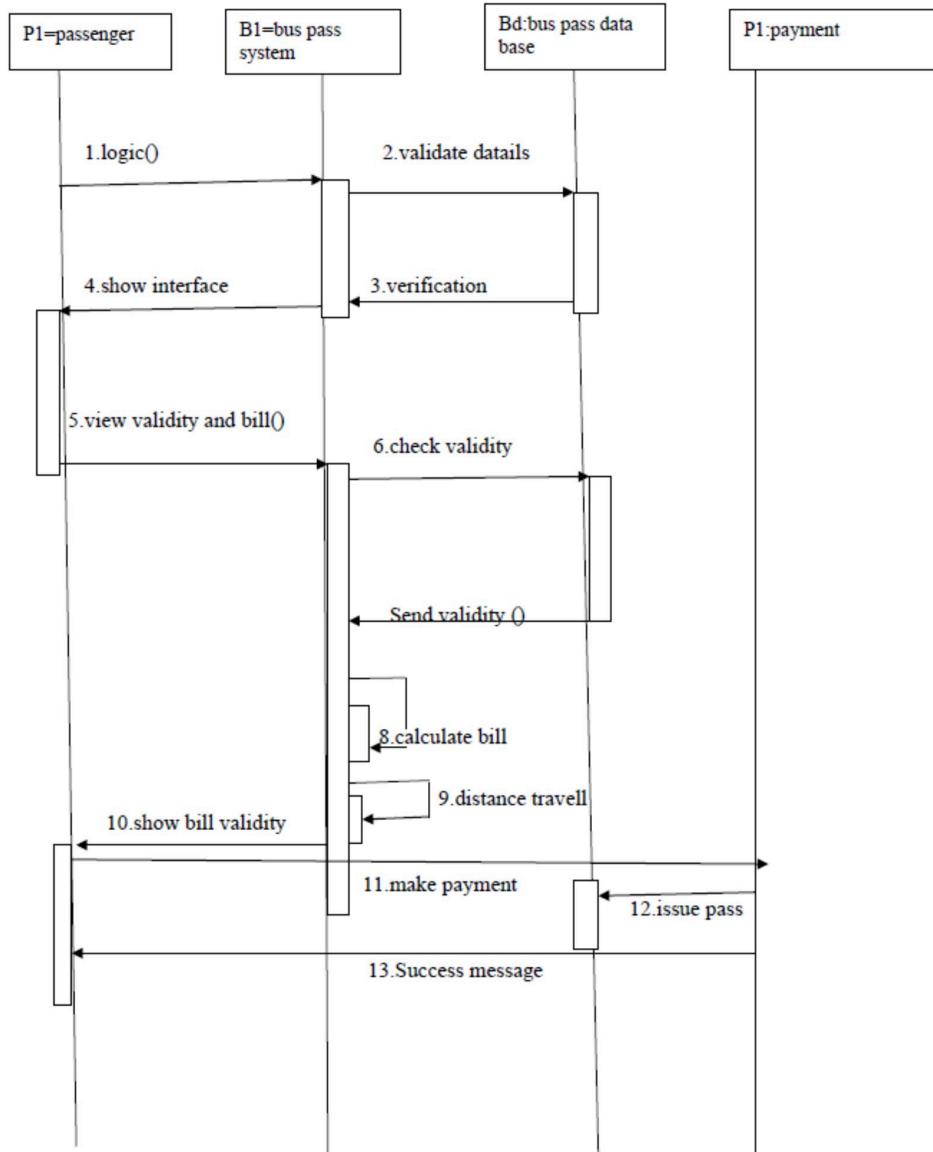
b) Data Flow



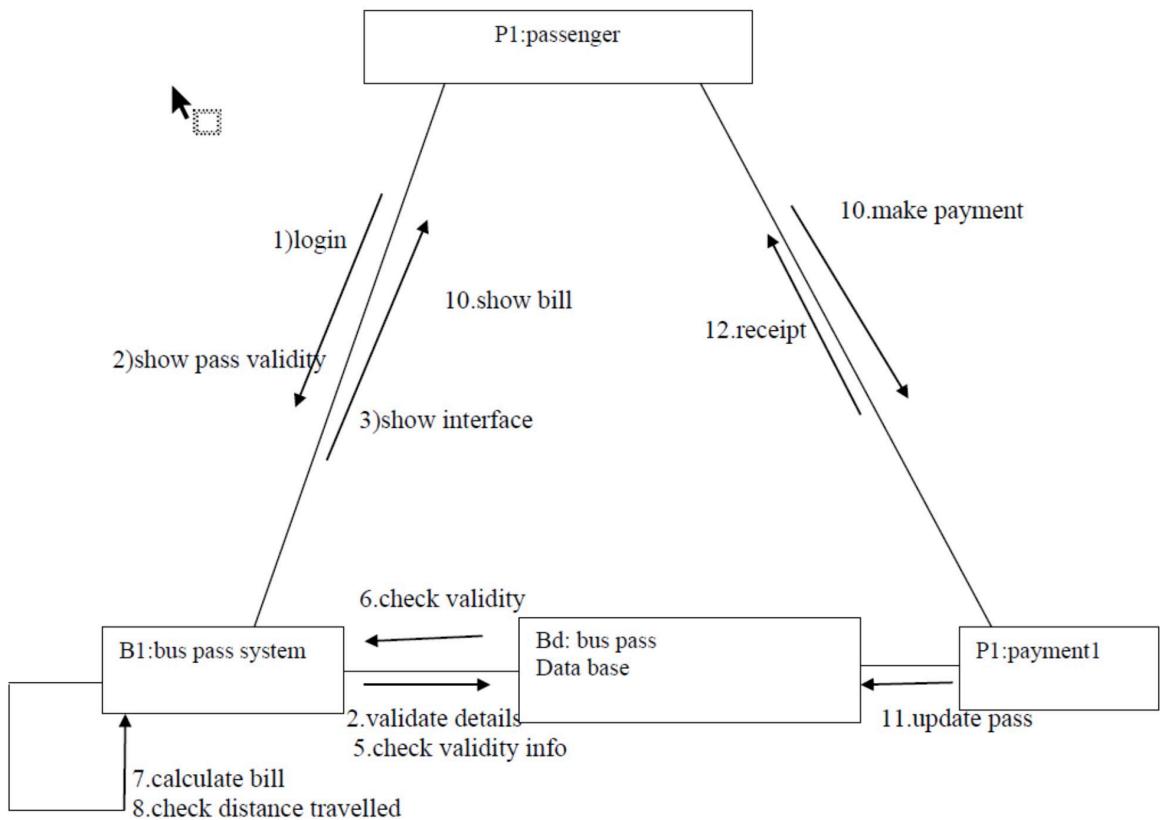
c) Class Diagram



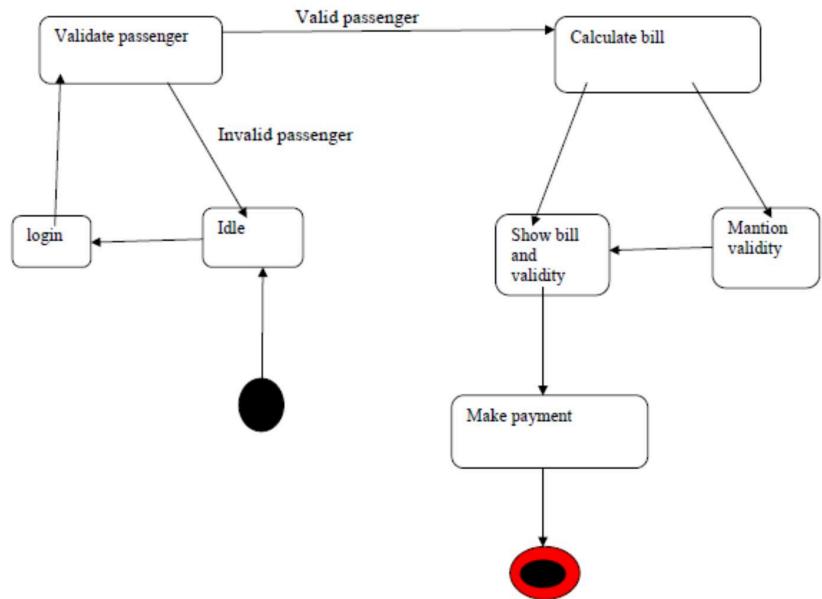
d) Sequence



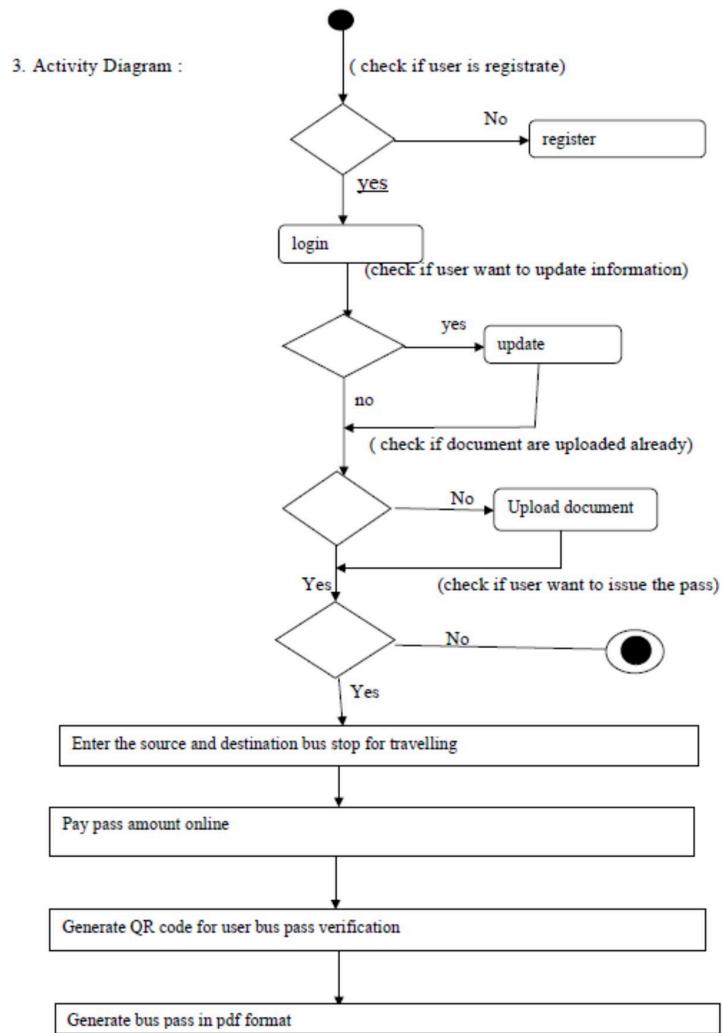
e) Collaboration Diagram



f) State chart diagram



g) Activity Diagram



TEST PLAN

The test plan is basically a list of test-cases that need to be run on the system.

Test No.	Requirement No.	Requirement	Description	Expected Output
1	R1	New user registration	Enter all the details of user and check for duplicate entry	User registered
2	R2	System login	Enter user name	Successful login
3	R3	Unsuccessful user verification due to wrong password	Login to the system with wrong password	Unsuccessful login
4	R4	Unsuccessful user verification due to invalid login id	Login to the system with a invalid login id	Invalid user id
5	R5	Generate pass	Generate bus pass With Validity of pass	Bus pass generated
6	R6	Take payment	Enter amount	Payment received
7	R7	feedback	User can add feedback about bus pass system	Feedback received

REFERENCES

- [1] An Integrated Approach to Software Engineering by Pankaj Jalote, Narosa Publication, 3rd edition.
- [2] The Unified Modeling Language User Guide by Grady Booch James Rumbaugh, Ivar Jacobson.
- [3] **Website** – <https://www.google.com/Fflowchart-guide-flowchart-tutorial>