

Tab-based Customer Feedback System

Md. Moksedur Rahman
ID: 012113012

A Project
in
The Department
of
Computer Science and Engineering



Presented in Partial Fulfillment of the Requirements
For the Degree of Master of Science in Computer Science and Engineering
United International University
Dhaka, Bangladesh
January 2018
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Approval Certificate

This project titled "**Tab-based Customer Feedback System**" submitted by **Md. Moksedur Rahman**, ID: **012113012**, has been accepted as Satisfactory in fulfillment of the requirement for the degree of Master of Science in Computer Science and Engineering on January 2018.

Board of Examiners

1.

Supervisor

Dr. Mohammad Nurul Huda
Professor and MSCSE Coordinator
United International University (UIU), Dhaka, Bangladesh

2.

Examiner

Nova Nurain
Asst. Professor
United International University (UIU), Dhaka, Bangladesh

Declaration

This is to certify that the work entitled “**Tab-based Customer Feedback System**” is the outcome of the research carried out by me under the supervision of Dr. Mohammad Nurul Huda.



Md. Moksedur Rahman

ID: 012113012

Master of Science in Computer Science and Engineering (MSCSE)

United International University (UIU), Dhaka, Bangladesh

In my capacity as supervisor of the candidate’s project, I certify that the above statements are true to the best of my knowledge.

Dr. Mohammad Nurul Huda

Professor and MSCSE Coordinator

United International University (UIU), Dhaka, Bangladesh

Abstract

Customer feedback offers to a company to improving quality of services by their valued feedback. A company should have a choice to use a number of tools to know what is happening inside organization. The most common use of a survey system is to measure customer satisfaction. Customer satisfaction is one of the methods to measures in what way products or services delivered by an organization to fulfillment of a customer's expectation. Satisfaction of customer is matters for an organization because management has change to improve their quality of product or services and it is possible by getting customer feedback. It will carry bonus if we get feedback from customer in real time. Tab-based Customer Feedback Systems is a software tool for businesses to use to gather valuable customer Insights. With Insights business owner can ask relevant questions that pertain to their business and get exact reasons as to why a customer had a good or bad experience. Take this data and use it to make better business decisions.

Acknowledgement

Thanks to Almighty Allah, at last I completed my project successfully with his kindness. I would like to appreciate all those who made this research project a success. Our heartiest gratitude, profound indebtedness and deep respect go to our supervisor Dr. Mohammad Nurul Huda, Professor, United International University (UIU), Dhaka, Bangladesh for his constant supervision, affectionate guidance and great encouragement and motivation. I am very grateful to the Department of Computer Science and Engineering (CSE) of United International University (UIU) for providing me support throughout the project work.

I would like to appreciate all of my colleagues, all friends of my course for their significant support, patience in my project. I would like a lot of gratitude to Md. Mahbubur Rahman, Managing Director of M/S M. Rahman for his idea and experience to this project.

Finally, my parents and my siblings, whose love, understanding and guideline are always support me in my quest, I never forget them all. I wish to thank my wife, Jannatunnahar, for her sacrifices, love and support, and my only wonderful daughter, Minha Rahman, who provide endless inspiration.

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Chapter 1

Introduction

1.1 Overview

Customer feedback offers to a company to improving quality of services by their valued feedback. A company should have a choice to use a number of tools to know what is happening inside organization. The most common use of a survey system is to measure customer satisfaction. Customer satisfaction is one of the methods to measures in what way products or services delivered by an organization to fulfillment of a customer's expectation. Satisfaction of customer is matters for an organization because management has change to improve their quality of product or services and it is possible by getting customer feedback

In this context, I developed a software tool define as “Tab-based Customer Feedback System”. Aims of this project are to get exact reasons as to why a customer had a good or bad experience. Take this data and use it to make better business decisions

1.2 Objectives

This Tab-based customer feedback system will treat as a measurement tool to gain as a successful project by achieving satisfaction of customer. The fundamental objective of this project is to discover the demands, all structures and benefits of a tab-based feedback system for all service oriented industries.

i. Capturing Real-Time Customer Feedback

The feedback app lets you communicate with your customers, and allows you to gather their reviews and feedback. Customers are presented with a tablet at the viewable site of the service, where they can give feedback their experience after end of the service. They can give feedback for all the aspects of business service. An easy to use, attractive, user- friendly interface allows customers to give their feedbacks easily.

ii. Alerts systems for Poor Feedback in Real-Time

An unhappy customer is the worst nightmare of a business services. This feedback system notify authorized person each time services gets a bad feedback. So that, authorized person can stay updated, as they receive poor feedback notifications directly to their phone, and they can take care of an unhappy customer immediately.

iii. Integration with Loyalty Programs

Loyalty programs and customer engagement have always gone hand in hand. They are the oldest trick in the book for attracting customers back to you. This system acts an effective backbone for loyalty programs as it can easily collects customer data. For digital marketing campaigns such as SMS marketing, email marketing, the database will come very valuable. It can be easily integrated with any third-party loyalty programs for further enhance customer engagement

iv. Data Analysis and Reporting

The purpose of collecting feedback is to get insights, analyze the data, and make informed decisions on their basis. Though, one must not panic at the sight of negative feedbacks. Sometimes, few customers put in bad feedback just to express their anger over made up issues, hoping to get a discount or a complimentary item. Therefore, you should be able to justify true feedback from the fake ones.

This system will allows you to view customers' feedback history. In this context, you can analyze whether the customer has a genuine concern, or if he has a habit of putting bad Feedback.

In this system you can also view reports based on the customers' feedback behavior. Service wise reporting tracks the performance of each service in the menu according to customer feedback.

Customer feedback is an essential part to know insights of your service's performance and customer engagement.

1.3 Motivation

Currently most of the feedback system is paper based, which is costs resources and time. Survey is developed, printed, and then collect data, entry, editing, cleaning, which time consuming and costly. Proposed system introduces to avoid those situations.

1.4 Report Outline

Chapter 2: In this chapter I will see summary and review of some papers which is related to this project. Finally we will present my work in this project and discuss the difference between propose system and the other.

Chapter 3: My proposed model will describe in this chapter. It will explain my work in this project step by step. There will be the source codes of this project end of this chapter.

Chapter 4: This chapter will talk about the evaluation of the project. It will show usability study. I will taste the system by some customer. I will take opinion from the customer. I will consider their feedback and base on the feedback I will discuss how I can make this system better.

Chapter 5: It will be the conclusion part of this paper. In this section I will also discuss the achievement from this project and the future work with this project to develop it more.

Chapter 2

Existing Model

It has been observed that existing systems were useful but in cases it was not so much effective for the company or institution. Some things can be mention. Authority could not update any information from the existing material. Top Level Management can't view customer feedback information. The whole system was static. To solve this problem an automated system was demanded to the company since few years

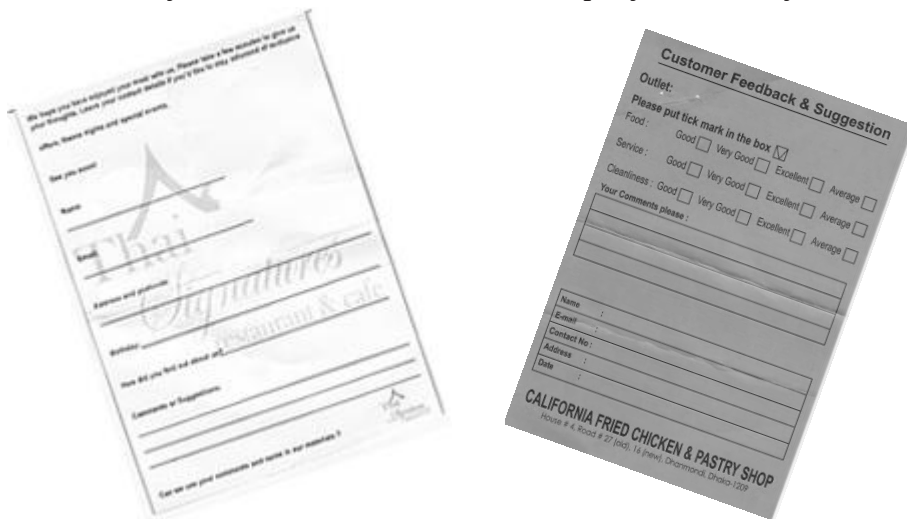


Figure 1: Existing paper-based Feedback systems

There are several issues you may face if you depend paper-based systems.

1. Limited capacity of storage: You may cost a huge amount of space for paper work. A number of documents will grow up day by day, further documents may keep besides your hand that is impossible when there is huge number of document exist.
2. Possibility to damage: Natural disasters may damage you valuable document, flood, cyclone, bushfire are common natural disaster all over the world, so paper based system is not suitable for you.
3. Incompetent moving of document: Moving a document is very painful in paper-based system. It is very slow and time consuming process.

4. Costs of Resource: Paper based system is associated with cost to manage the whole process. We need a lot of papers, pen, stationery every day and every month. This cost will increase a notable amount of expense in an organization.
5. Poor ecofriendly: a lot uses of paper base system may affect in an environment. For ecofriendly environment we should avoid depend on paper based system.
6. Sharing problem: it is difficult to share a document to others who is in remote location.
7. Problem in Editing: when we need to change a document in paper based system we face many difficulties. We can't change easily of the document.

Chapter 3

Proposed Model and Requirement Analysis

Most of the customers do not want to give feedback by handwritten. It is time consuming that's why I developed this system so that they can easily give their feedback. In this way customer can save their valuable time. Proposed system will be very easy to give feedback for the customer. Customer need not to be expert on computer system. Customer can provide their opinion in just a single press. Location Admin can view the report of respective location, HQ Admin can view report all location remotely. If any customer give poor feedback location admin will be notify by mobile SMS, email.

3.1 Model Structure

3.1.1 Class Diagram

The most valuable diagrams in object oriented modeling are Class diagrams. It describes relationships the structure of a software system by modeling of its classes, operations, attributes, and connections between objects.

Visibility of attribute and method of a class these notations must be placed before the member's name:

+	Public
-	Private
#	Protected
/	Derived (can be combined with one of the others)
~	Package
*	Random

Figure 3.1.1: Visibility of attribute, method of a class.

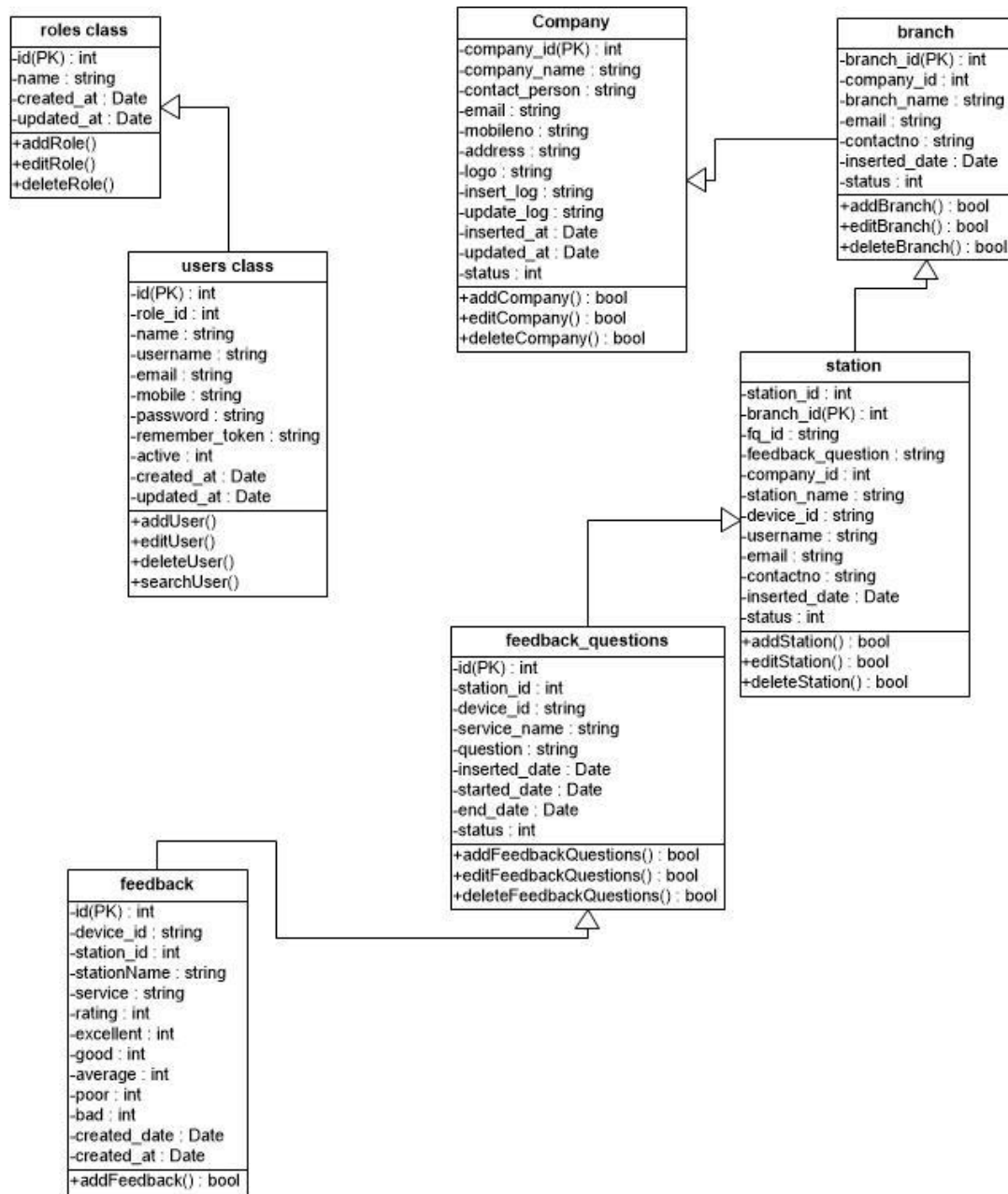


Figure 3.1: Class diagram of my Proposed Model.

3.1.2 Use Case Diagram

Actions or event of every step is known Use Case diagram. In software and systems engineering, it is interact between a role of an actor (known in the Unified Modeling Language as an actor) and a system to reach a goal. A human or external recourse may act as actor. This methodology clarifies, identify and organize whole system requirements

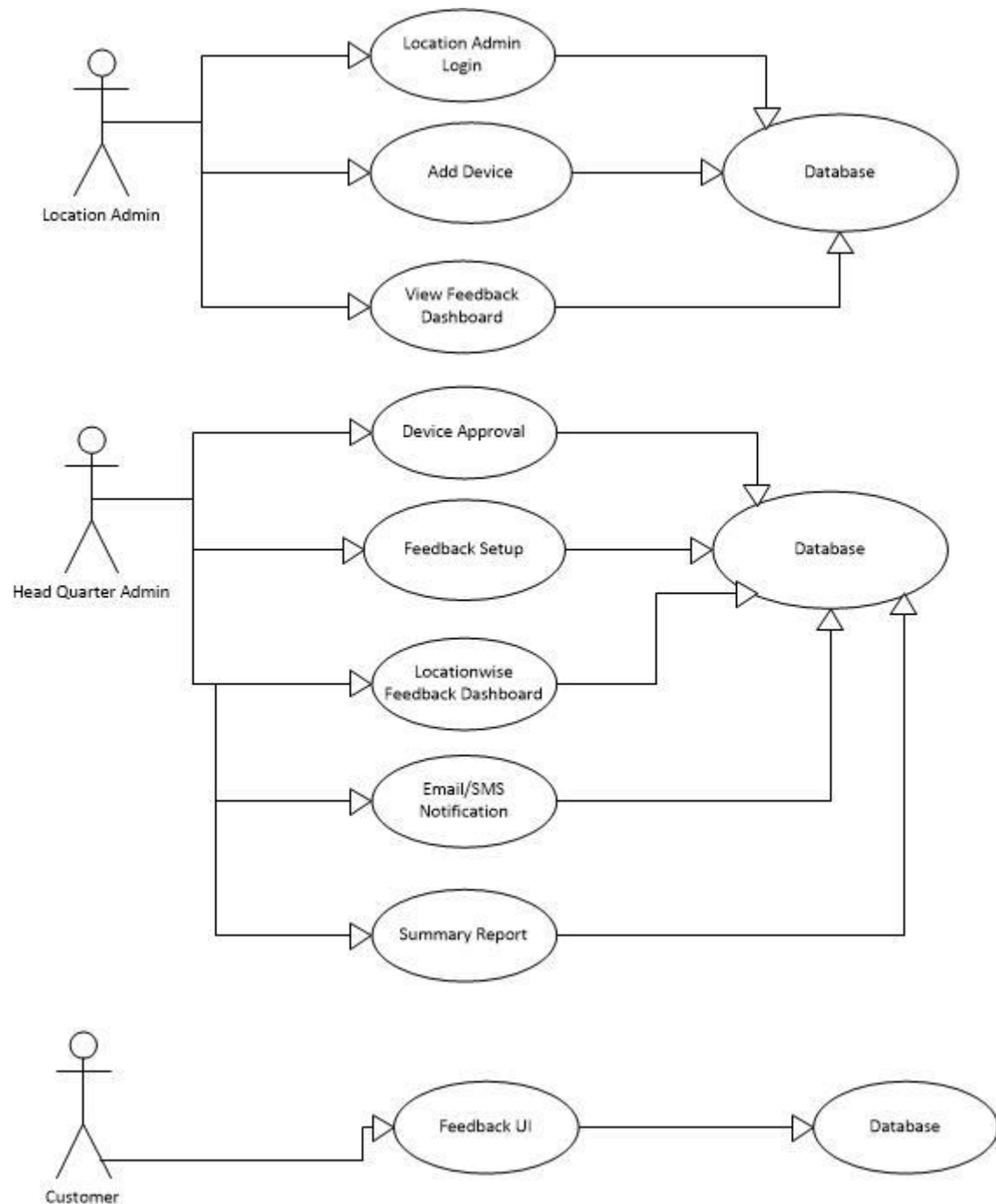


Figure 3.1.2: Use Case diagram of the application.

3.1.3 Data Flow Diagram (DFD)

A graphical illustration known as data flow diagram (DFD) which represents the “flow” of data through the whole information system. To draw an outline of the system we

use DFD as a preliminary step to without going into great detail. It shows the visualization impression of data processing.

A DFD illustrate which information will be input and output from the designed system, how the processed data will growth through the whole system, and where this valuable data will be stored.

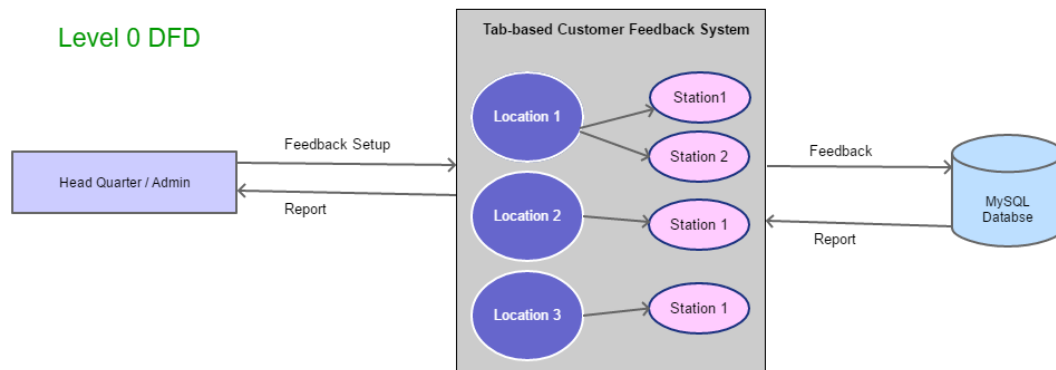


Figure 3.1.3: Level 0 DFD of the application.

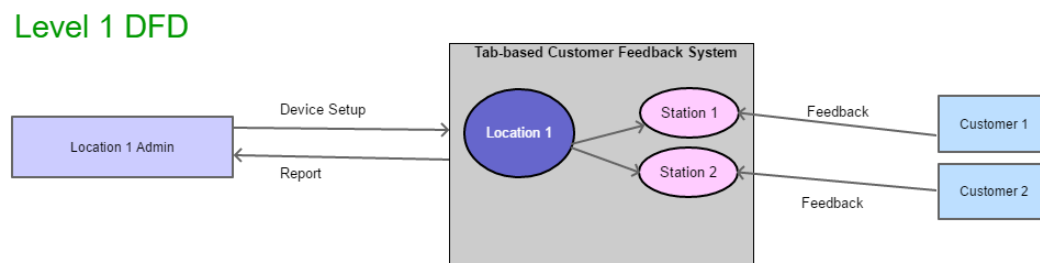


Figure 3.4: Level 1 DFD of the application.

3.1.4 Sequence Diagram

A sequence diagram is a collaboration diagram which shows how objects work with one another in an order. This interaction diagram creates of a message of a sequence chart. A sequence diagram must arrange in time sequence to shows its object interactions.

Admin Login Sequence Diagram

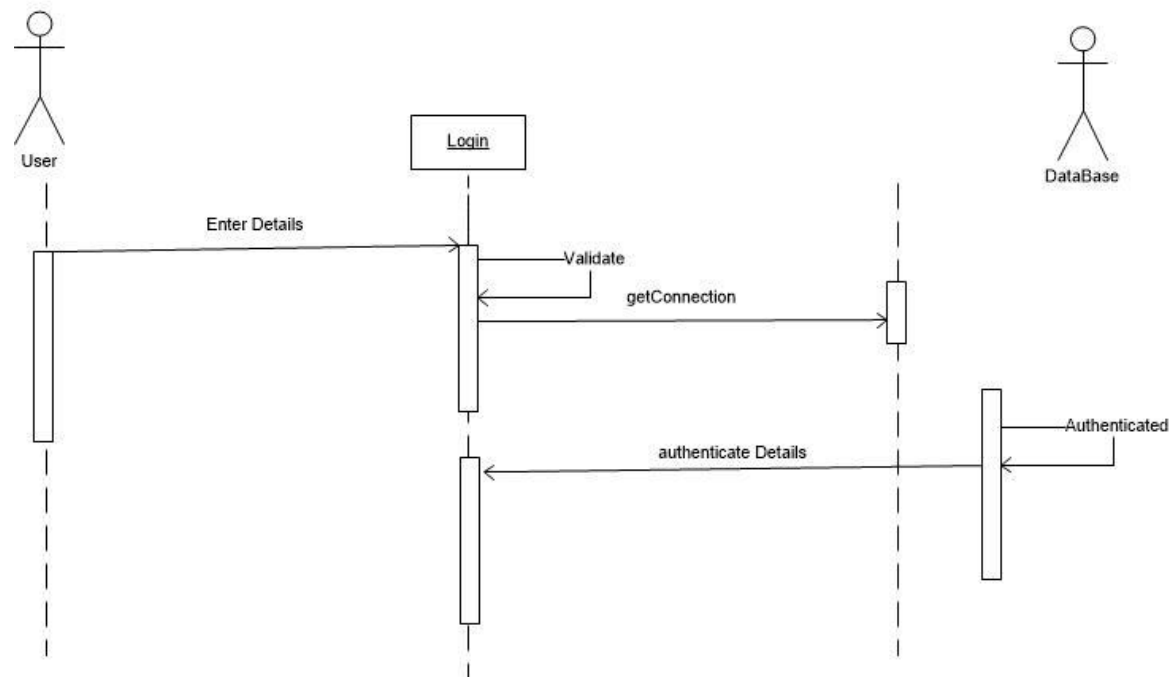


Figure 3.1.4: Admin sequence Diagram of the application.

Display Feedback on Device Sequence Diagram

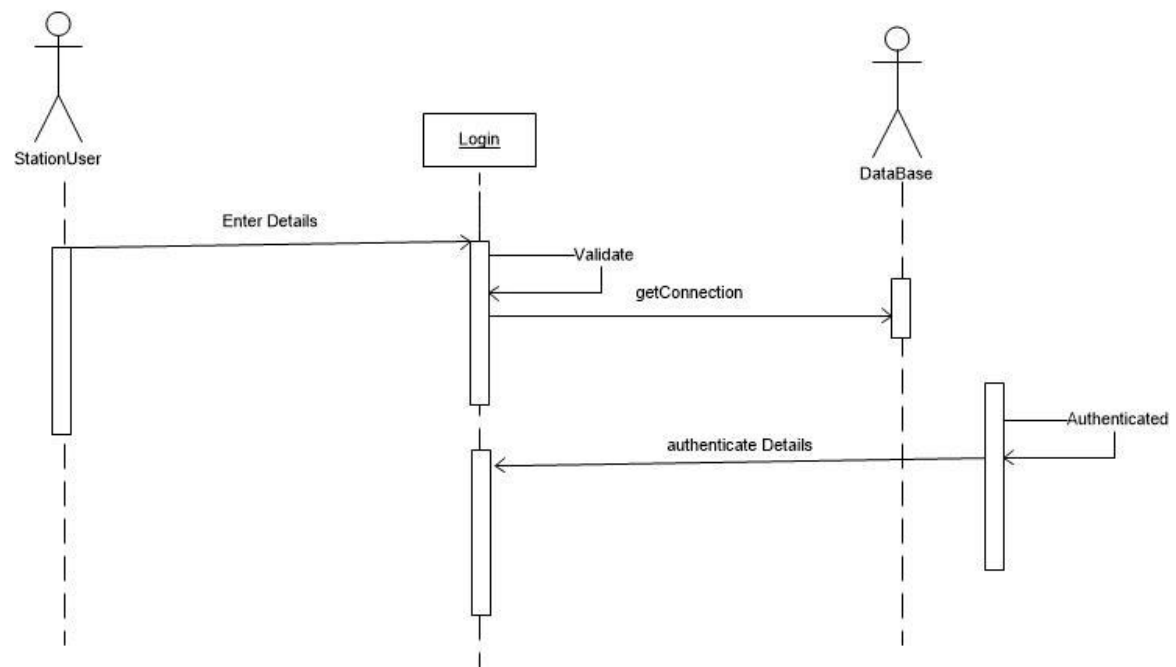


Figure 3.6: Admin sequence Diagram of the application.

Customer Registration Sequence Diagram

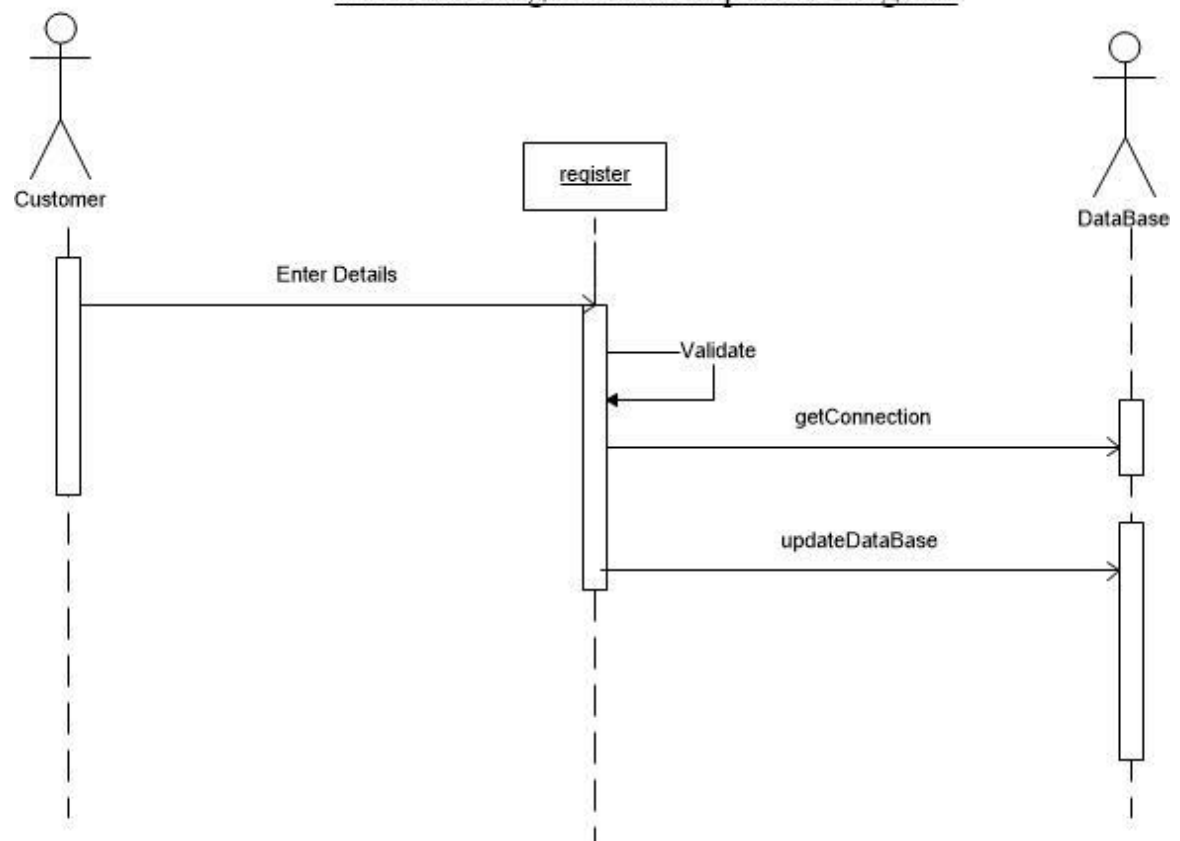


Figure 3.7: Admin sequence Diagram of the application.

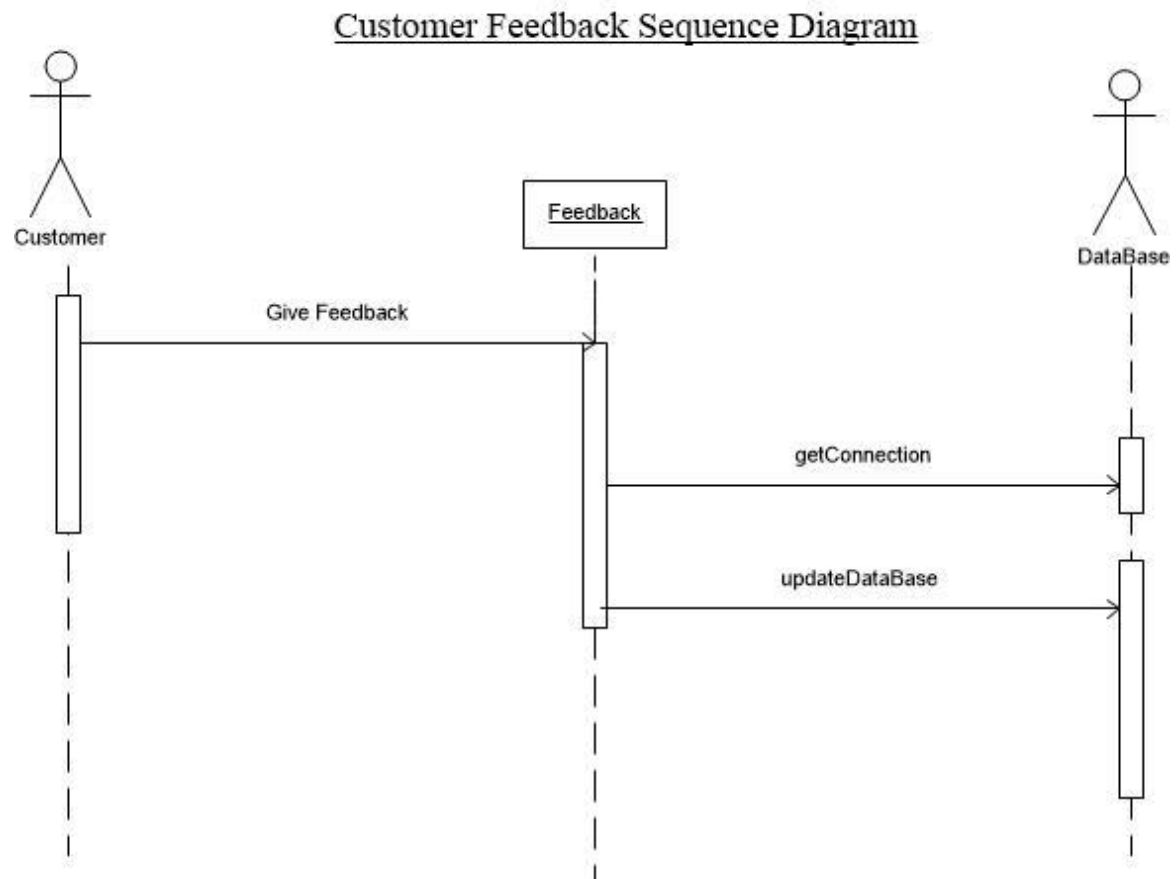


Figure 3.8: Admin sequence Diagram of the application.

3.1.5 System Architecture

System architecture is the conceptual of physical model to define its behavior, the structure, and more views of a whole software system. It shows is a official description and picture of a system.

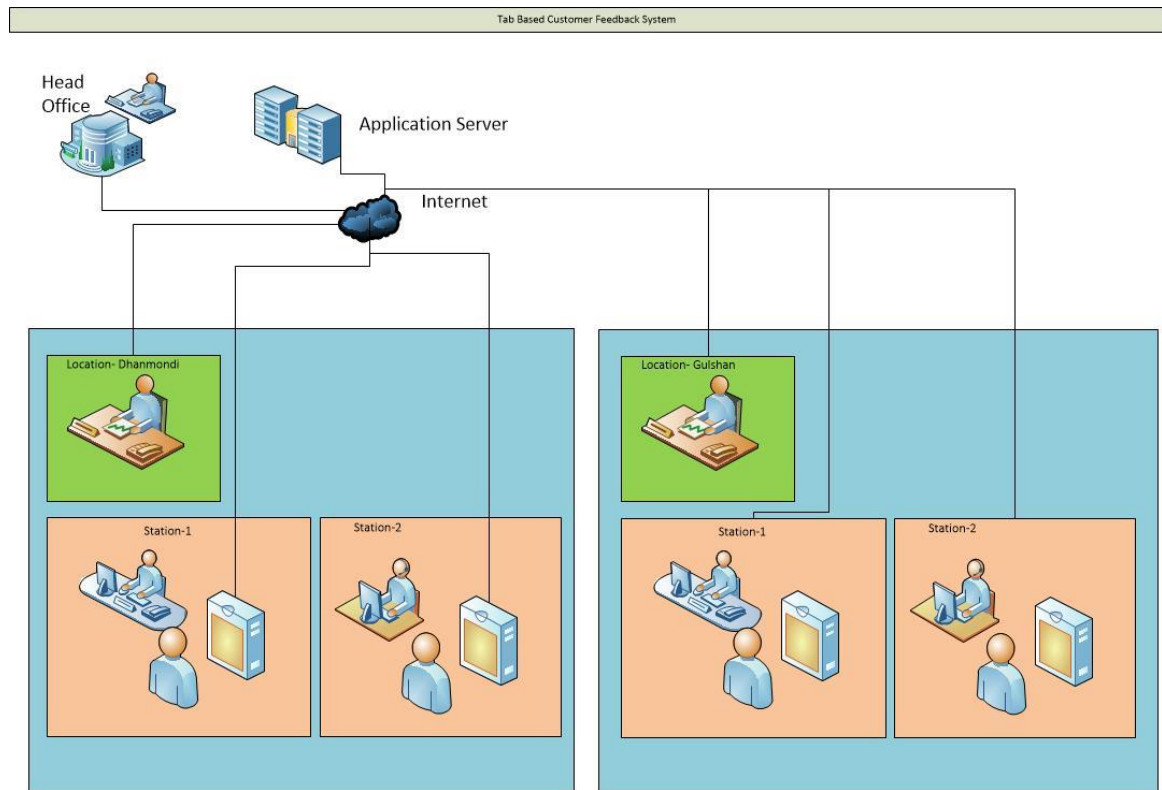


Figure 3.1.5: System Architecture of the application.

3.1.6 Flow chart for customer feedback process

Customer Feedback Process

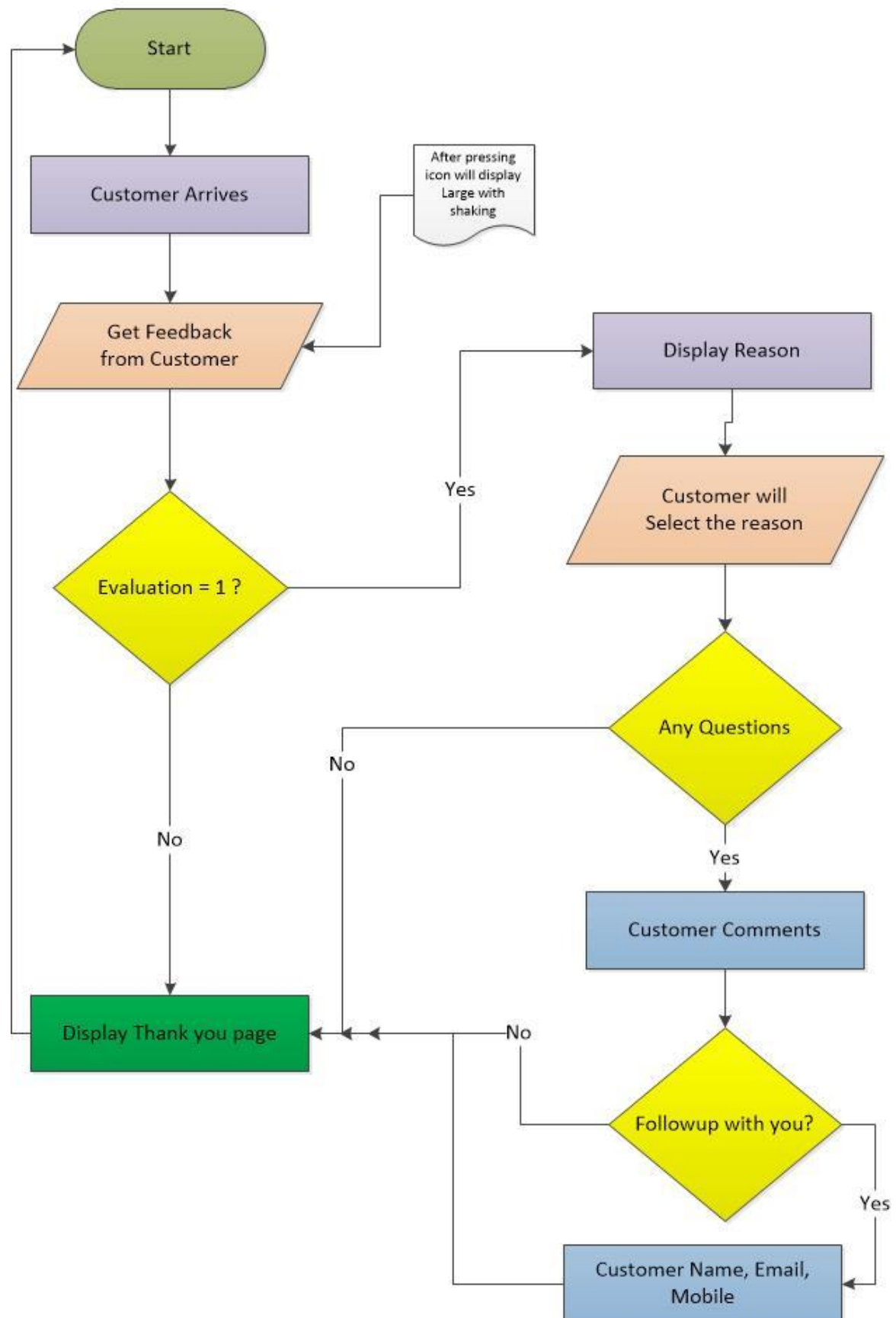


Figure 3.1.6: Customer feedback process of the application.

3.2 Software Requirements:

To implement the proposed application we need to develop a system where customer can easily give there feedback, Tab-based system is the best fit for such objectives. Primarily we will create an online application, and then in later stage we will add a mobile application. The software tools that used here are open source that means it is free to download, which reduces the cost to buy software to implement the project. For designing the project, HTML, Bootstrap, CSS is used which is open source. Apache web server is used as web server, PHP, JavaScript; Ajax is used for database coding. MySQL is used for database server. All these tools are

3.3 Software Implementation:

3.3.1 HTML

In this project, the website is designed using HTML language. HTML means Hyper Text Markup Language.

- Very Easy to use.
- It is Free – need not to buy any software.
- Easy to learn for beginner
- Supported by almost every browser.
- Broadly used on almost every website.

3.3.2 AJAX

replacing small amounts of data with the server behind the scenes and in this project we use Ajax.

3.3.3 PHP

In my project, most of the backend coding is done by PHP language which is stand for Hypertext Preprocessor. I choose PHP because of

- To Works Great using HTML - HTML, it makes the step to PHP is very easy. In fact, PHP and HTML are compatible within the page. While PHP may add some new features to your website, the basic form is still all created with HTML.
- Interactive Features - Interacting with visitors only HTML not possible. Just think e-mail forms or other elaborate page like shopping carts which save previous orders and endorse related products. It can also mean social things like interactive forums and private messaging systems is also an example.
- All version of PHP supports many databases.

3.3.4 JavaScript

In this project we use JavaScript for certain part of our project. Because of JavaScript code is written into our project in all pages. When a user submits requests in a html page which is included JavaScript, it is sent to the web browser and request up to the browser to do.

- It is free to use.
- It is open source.

3.3.5 Bootstrap

In this project we use bootstrap for designing. Because of

- Speed of Development.
- Responsiveness.
- Consistency.
- Customizable.

3.3.6 MySQL

In this project, MySQL is used as database server. MySQL is used because

- MySQL is small and light weight database server.
- All small and medium size application preferred MySQL.
- It supports regular SQL.
- Community edition of MySQL is completely free for download.

3.3.7 XAMPP Server:

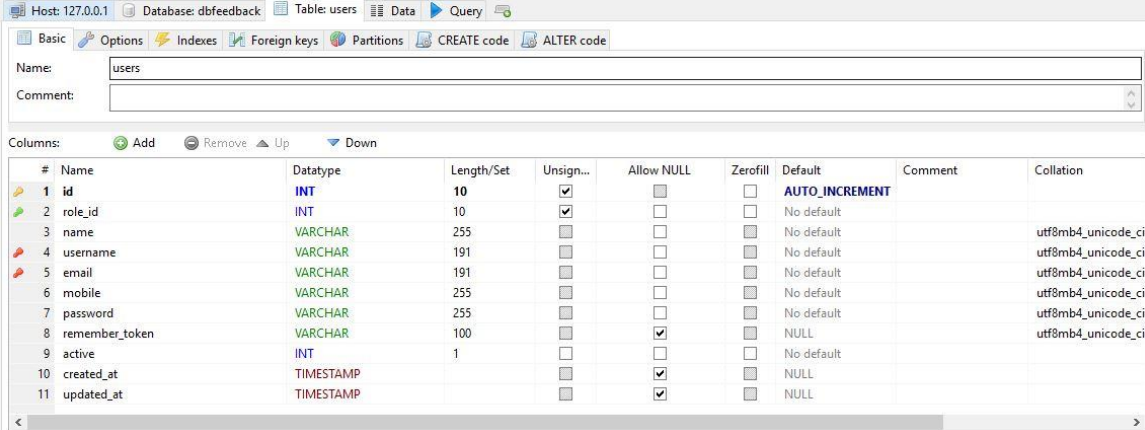
If you looking a free and open source web server XAMPP server will be best for you. Which is developed by most popular Apache?

This popular server is written in the PHP and Perl programming languages.

3.4 Database Implementation:

After getting the requirement of a logical plan with physical design of our database, we can follow to the implementation phase. In common, applying our physical plan involves defining the several objects and implementing the constraints on the data relations

3.4.1 User table (users):



#	Name	Datatype	Length/Set	Unsign...	Allow NULL	Zerofill	Default	Comment	Collation
1	id	INT	10	☒	☐	☐	AUTO_INCREMENT		
2	role_id	INT	10	☒	☐	☐	No default		
3	name	VARCHAR	255	☐	☐	☐	No default		utf8mb4_unicode_ci
4	username	VARCHAR	191	☐	☐	☐	No default		utf8mb4_unicode_ci
5	email	VARCHAR	191	☐	☐	☐	No default		utf8mb4_unicode_ci
6	mobile	VARCHAR	255	☐	☐	☐	No default		utf8mb4_unicode_ci
7	password	VARCHAR	255	☐	☐	☐	No default		utf8mb4_unicode_ci
8	remember_token	VARCHAR	100	☐	☒	☐	NULL		utf8mb4_unicode_ci
9	active	INT	1	☐	☐	☐	No default		
10	created_at	TIMESTAMP		☐	☒	☐	NULL		
11	updated_at	TIMESTAMP		☐	☒	☐	NULL		

Figure 3.4.1 - User table

This table contains the user List. The columns are given below-

- ✓ `id` int(10) UNSIGNED NOT NULL,
- ✓ `role\_id` int(10) UNSIGNED NOT NULL,
- ✓ `name` varchar(255) COLLATE utf8mb4_unicode_ci NOT NULL,
- ✓ `username` varchar(191) COLLATE utf8mb4_unicode_ci NOT NULL,
- ✓ `email` varchar(191) COLLATE utf8mb4_unicode_ci NOT NULL,
- ✓ `mobile` varchar(255) COLLATE utf8mb4_unicode_ci NOT NULL,
- ✓ `password` varchar(255) COLLATE utf8mb4_unicode_ci NOT NULL,
- ✓ `remember\_token` varchar(100) COLLATE utf8mb4_unicode_ci DEFAULT NULL,
- ✓ `active` int(1) NOT NULL,
- ✓ `created\_at` timestamp NULL DEFAULT NULL,
- ✓ `updated\_at` timestamp NULL DEFAULT NULL

3.4.2 Roles table (roles):

#	Name	Datatype	Length/Set	Unsign...	Allow NULL	Zerofill	Default	Comment	Collation
1	id	INT	10	☒	☐	☐	AUTO_INCREMENT		
2	name	VARCHAR	50	☐	☐	☐	No default		utf8mb4_unicode_ci
3	created_at	TIMESTAMP		☐	☒	☐	NULL		
4	updated_at	TIMESTAMP		☐	☒	☐	NULL		

Figure 3.4.2 - Roles table

This table contains the user Role. The columns are given below-

- ✓ `id` int(10) UNSIGNED NOT NULL,
- ✓ `name` varchar(50) COLLATE utf8mb4_unicode_ci NOT NULL,
- ✓ `created\_at` timestamp NULL DEFAULT NULL,
- ✓ `updated\_at` timestamp NULL DEFAULT NULL

3.4.3 Company table (company):

#	Name	Datatype	Length/Set	Unsign...	Allow NULL	Zerofill	Default	Comment	Collation
1	company_id	INT	11	☐	☐	☐	AUTO_INCREMENT		
2	company_name	VARCHAR	50	☐	☐	☐	No default		
3	contact_person	VARCHAR	50	☐	☐	☐	No default		
4	email	VARCHAR	30	☐	☐	☐	No default		
5	mobilen	VARCHAR	11	☐	☐	☐	No default		
6	address	VARCHAR	300	☐	☐	☐	No default		
7	logo	VARCHAR	20	☐	☐	☐	No default		
8	insert_log	VARCHAR	200	☐	☐	☐	No default		
9	update_log	VARCHAR	200	☐	☐	☐	No default		
10	inserted_at	TIMESTAMP		☐	☐	☐	CURRENT_TIMEST...		
11	updated_at	TIMESTAMP		☐	☐	☐	CURRENT_TIMEST...		
12	status	TINYINT	4	☐	☐	☐	No default		

Figure 3.21 - Company table

This table contains the list of the company. The columns of this table are given below

- ✓ `company\_id` int(11) NOT NULL,
- ✓ `company\_name` varchar(50) NOT NULL,

- ✓ `contact\_person` varchar(50) NOT NULL,
- ✓ `email` varchar(30) NOT NULL,
- ✓ `mobileno` varchar(11) NOT NULL,
- ✓ `address` varchar(300) NOT NULL,
- ✓ `logo` varchar(20) NOT NULL,
- ✓ `insert\_log` varchar(200) NOT NULL,
- ✓ `update\_log` varchar(200) NOT NULL,
- ✓ `inserted\_at` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
- ✓ `updated\_at` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
- ✓ `status` tinyint(4) NOT NULL

3.4.4 Branch table (branch):

#	Name	Datatype	Length/Set	Unsigned	Allow NULL	Zerofill	Default	Comment	Collation
1	branch_id	INT	10	☐	☐	☐	AUTO_INCREMENT		
2	company_id	VARCHAR	30	☐	☐	☐	No default		
3	branch_name	VARCHAR	200	☐	☐	☐	No default		
4	email	VARCHAR	30	☐	☒	☐	NULL		
5	contactno	VARCHAR	20	☐	☒	☐	NULL		
6	inserted_date	TIMESTAMP		☐	☐	☐	CURRENT_TIMESTAMP		
7	status	INT	1	☐	☐	☐	No default		

Figure 3.4.4 - Branch table

This table contains the Branch list of the company. The columns of this table are given below

- ✓ `branch\_id` int(10) NOT NULL,
- ✓ `company\_id` varchar(30) NOT NULL,
- ✓ `branch\_name` varchar(200) NOT NULL,
- ✓ `email` varchar(30) DEFAULT NULL,
- ✓ `contactno` varchar(20) DEFAULT NULL,
- ✓ `inserted\_date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
- ✓ `status` int(1) NOT NULL

3.4.5 Station table (station):

#	Name	Datatype	Length/Set	Unsign...	Allow NULL	Zerofill	Default	Comment	Collation
1	station_id	INT	10	☐	☐	☐	AUTO_INCREMENT		
2	branch_id	INT	10	☐	☐	☐	No default		
3	company_id	VARCHAR	30	☐	☐	☐	No default		
4	fq_id	INT	10	☐	☐	☐	No default		
5	station_name	VARCHAR	200	☐	☐	☐	No default		
6	feedback_question	VARCHAR	200	☐	☐	☐	No default		
7	device_id	VARCHAR	50	☐	☐	☐	No default		
8	username	VARCHAR	30	☐	☒	☐	NULL		
9	email	VARCHAR	30	☐	☒	☐	NULL		
10	contactno	VARCHAR	20	☐	☒	☐	NULL		
11	inserted_date	TIMESTAMP		☐	☐	☐	CURRENT_TIMEST...		
12	status	INT	1	☐	☐	☐	No default		

Figure 3.4.5 - Station table

This table contains the Branch list of the company. The columns of this table are given below

- ✓ `station\_id` int(10) NOT NULL,
- ✓ `branch\_id` int(10) NOT NULL,
- ✓ `company\_id` varchar(30) NOT NULL,
- ✓ `fq\_id` int(10) NOT NULL,
- ✓ `station\_name` varchar(200) NOT NULL,
- ✓ `feedback\_question` varchar(200) NOT NULL,
- ✓ `device\_id` varchar(50) NOT NULL,
- ✓ `username` varchar(30) DEFAULT NULL,
- ✓ `email` varchar(30) DEFAULT NULL,
- ✓ `contactno` varchar(20) DEFAULT NULL,
- ✓ `inserted\_date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
- ✓ `status` int(1) NOT NULL

3.4.6 Feedback Questions table (feedback_questions):

#	Name	Datatype	Length/Set	Unsign...	Allow NULL	Zerofill	Default	Comment	Collation
1	id	INT	11	☐	☐	☐	AUTO_INCREMENT		
2	station_id	INT	11	☐	☐	☐	No default		
3	device_id	VARCHAR	50	☐	☐	☐	No default		utf8_unicode_ci
4	service_name	VARCHAR	30	☐	☐	☐	No default		utf8_unicode_ci
5	question	VARCHAR	200	☐	☐	☐	No default		utf8_unicode_ci
6	inserted_date	TIMESTAMP		☐	☐	☐	CURRENT_TIMEST...		
7	started_date	TIMESTAMP		☐	☐	☐	0000-00-00 00:00:00		
8	end_date	TIMESTAMP		☐	☐	☐	0000-00-00 00:00:00		
9	status	TINYINT	1	☐	☐	☐	0		

Figure 3.4.6 - feedback_questions table

- ✓ `id` int(11) NOT NULL,
- ✓ `station\_id` int(11) NOT NULL,
- ✓ `device\_id` varchar(50) COLLATE utf8_unicode_ci NOT NULL,
- ✓ `service\_name` varchar(30) COLLATE utf8_unicode_ci NOT NULL,
- ✓ `question` varchar(200) COLLATE utf8_unicode_ci NOT NULL,
- ✓ `inserted\_date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
- ✓ `started\_date` timestamp NOT NULL DEFAULT '0000-00-00 00:00:00',
- ✓ `end\_date` timestamp NOT NULL DEFAULT '0000-00-00 00:00:00',
- ✓ `status` tinyint(1) NOT NULL DEFAULT '0'

3.4.7 Feedback table (feedback):

#	Name	Datatype	Length/Set	Unsign...	Allow NULL	Zerofill	Default	Comment	Collation
1	id	INT	20	☐	☐	☐	AUTO_INCREMENT		
2	device_id	VARCHAR	30	☐	☐	☐	No default		
3	station_id	INT	20	☐	☒	☐	NULL		
4	station_name	VARCHAR	30	☐	☐	☐	No default		
5	service	VARCHAR	30	☐	☐	☐	No default		
6	rating	INT	2	☐	☐	☐	No default		
7	excellent	INT	11	☐	☐	☐	No default	5	
8	good	INT	11	☐	☐	☐	No default	4	
9	average	INT	11	☐	☐	☐	No default	3	
10	poor	INT	11	☐	☐	☐	No default	2	
11	bad	INT	11	☐	☐	☐	No default	1	
12	created_date	TIMESTAMP		☐	☐	☐	CURRENT_TIMEST...		
13	created_at	DATE		☐	☒	☐	NULL		

Figure 3.4.7 - Feedback table

This table contains Feedback of customer. The columns of this table are given below

- ✓ `id` int(20) NOT NULL,
- ✓ `device\_id` varchar(30) NOT NULL,
- ✓ `station\_id` int(20) DEFAULT NULL,
- ✓ `station\_name` varchar(30) NOT NULL,
- ✓ `service` varchar(30) NOT NULL,
- ✓ `rating` int(2) NOT NULL,
- ✓ `excellent` int(11) NOT NULL COMMENT '5',
- ✓ `good` int(11) NOT NULL COMMENT '4',
- ✓ `average` int(11) NOT NULL COMMENT '3',
- ✓ `poor` int(11) NOT NULL COMMENT '2',
- ✓ `bad` int(11) NOT NULL COMMENT '1',
- ✓ `created\_date` timestamp NOT NULL DEFAULT
CURRENT_TIMESTAMP,
- ✓ `created\_at` date DEFAULT NULL

Chapter -4

Design Description

Description of a design is a complete document providing all information about a project so that can be set criteria the developers will need to meet. It is the overall guideline to meet the expectation..

4.1 User Interface

When the design of all content is confirmed, the format for human-computer interaction (HCL) is demanded. User of the interface is the process of the system where the system will talk to the end user using the error or bug messages, form, report etc. it is the vital part of any application.

4.2 Customer Interface

4.2.1 Customer Feedback Interface

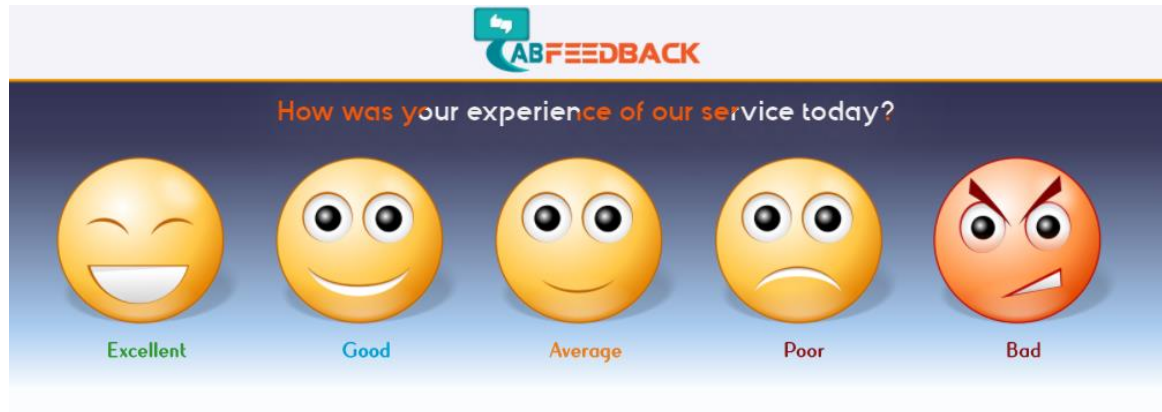


Figure 4.2.1 – Customer Feedback Interface

Description: This is the customer feedback interface; Customer will give their feedback using this interactive interface, Just a single click customer can give their opinion. If a customer has a bad experience He/she will click on Bad Emoji Icon. On the other hand if a customer is happy about service he / she will click on Excellent Emoji icon. Value of Excellent is 5 out of 5, for Good 4 out of 5, average means 3 of 5, for poor is 2 and bad for 1 out of 5

4.2.2 Customer Feedback Interface zooms out



Figure 4.2.2 – Customer Feedback Interface zooms out

Description: After click the Emoji will zoom out. This will display for few second

4.2.3 Customer Feedback Interface Thank You



Figure 4.2.3 – Customer Feedback Interface Thank You

Description: This is the Thank you page. The thank you page will display for few second. After few second hold the page will reloaded, Main feedback will display again.

4.3 Admin Interface

4.3.1 Log in Page

The login page of the Tab-based Feedback Admin panel shown in figure

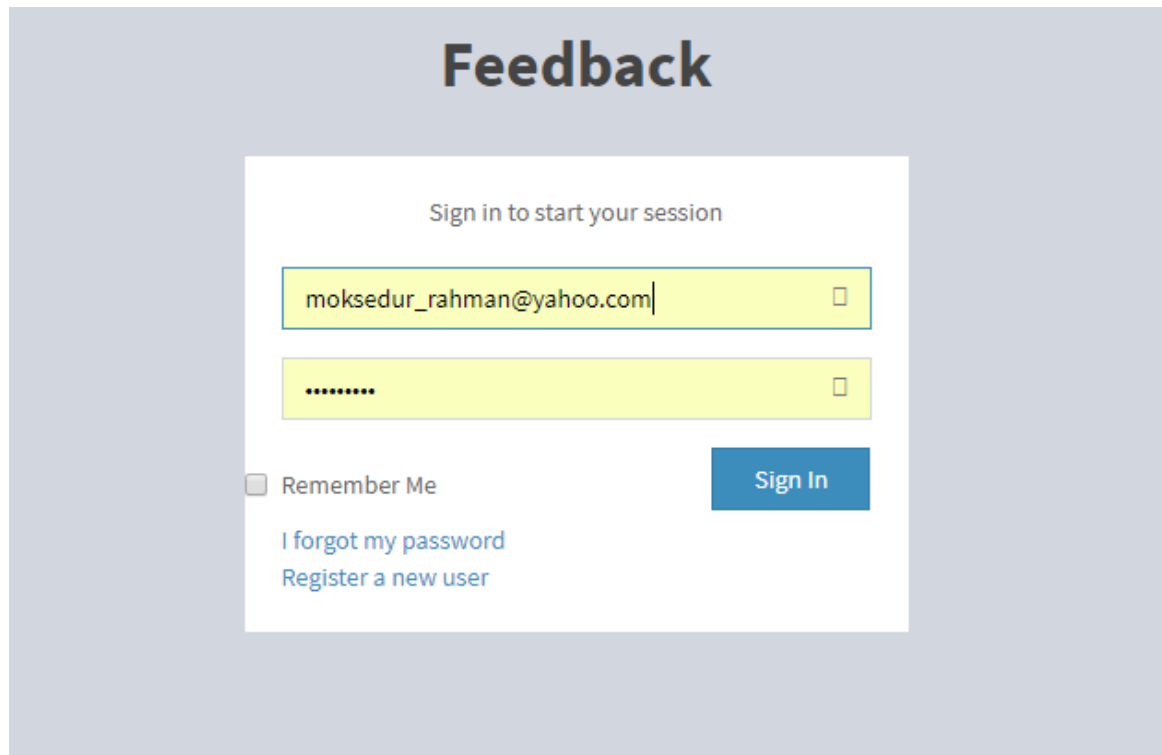
The image shows a web interface for a 'Feedback' system. At the top, the word 'Feedback' is displayed in a large, bold, dark blue font. Below this, there is a white rectangular box containing the login form. Inside the box, the text 'Sign in to start your session' is centered. There are two input fields: the first is for the email address, containing 'moksedur_rahman@yahoo.com', and the second is for the password, represented by a series of dots. To the right of each input field is a small square icon. Below the password field, there is a checkbox labeled 'Remember Me'. To the right of the checkbox is a blue button with the text 'Sign In'. Below the 'Sign In' button, there are two links: 'I forgot my password' and 'Register a new user'.

Figure 4.3.1 – Admin Login page

Description:

This is the login page for Tab-based Feedback Admin panel. There is a user id field and a password field. This input must be filled accurately. Without filling all the fields the form can't be submitted. The two type user's admin, super admin can log in using their individual user id and password. Only valid user id and password is acceptable.

4.3.2 Add New Company

Add New Company of the Tab-based Feedback Admin panel shown in figure

Company Add

Company Name

Contact Person

Email

Mobile No

Addresss

Logo

Figure 4.3.2 – Add new company

Description: This is the company page; User will register new company information into the system. Company will get a confirmation email or SMS to their valid mobile.

4.3.3 Add new branch

Branch Registration

Company Name

Branch Name

Contact Person

Email

Mobile No

Figure 4.3.3 – Add new branch

Description: This is the branch page; User will select a company and enter the branch Information into the system

4.3.4 Station Setup

The station setup page of the Tab-based Feedback Admin panel shown in figure



The image shows a web form titled "Station Setup" on a light blue background. The form contains several input fields: "Company Name", "Branch Name", and "Contact No" are stacked vertically on the right side. Below these, "Station Name" and "Device ID" are placed side-by-side. At the bottom, there is a "Save" button. Below the input fields, there is a table with two columns: "Station Name" and "Device ID". The table body is currently empty.

Station Name	Device ID
--------------	-----------

Figure 4.3.4– Station Add

Description: This is the Station Setup page; User will enter station of a specific company and their respective branch into the system

4.3.5 Feedback Setup

Feedback Questions Setup

Company Name

Branch Name

Station Name

Service Name Questions

Start Date End Date

Service Name	Question	Start	End

Figure 4.3.5– Feedback Questions Setup

Description: This is the Feedback Questions Setup page; User will enter Question and service of respective station into the system

4.4 Admin Dashboard

4.4.1 Todays average mode status

TODAY MODE STATUS



Great! Your Rate above 2.9

Figure 4.4.1– todays average mode status

Description: This is the average customer satisfaction of a specific service. The Emoji is depends on the average feedback for the current date and single service.

4.4.2 Todays total Feedback

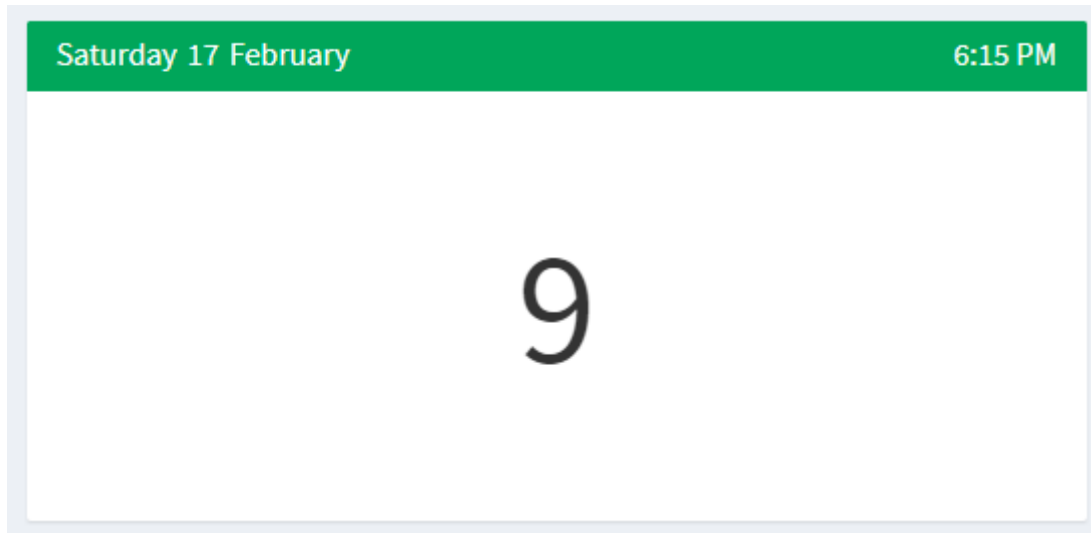


Figure 4.4.2– todays total Feedback

This section shows the total numbers of feedback of a service.

4.4.3 Todays Average Feedback

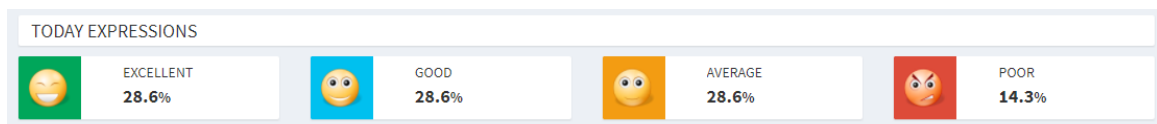


Figure 4.4.3– Todays Average Feedback

Description: This is the average mode status on a current day.

4.4.4 Weekly and monthly Feedback Status

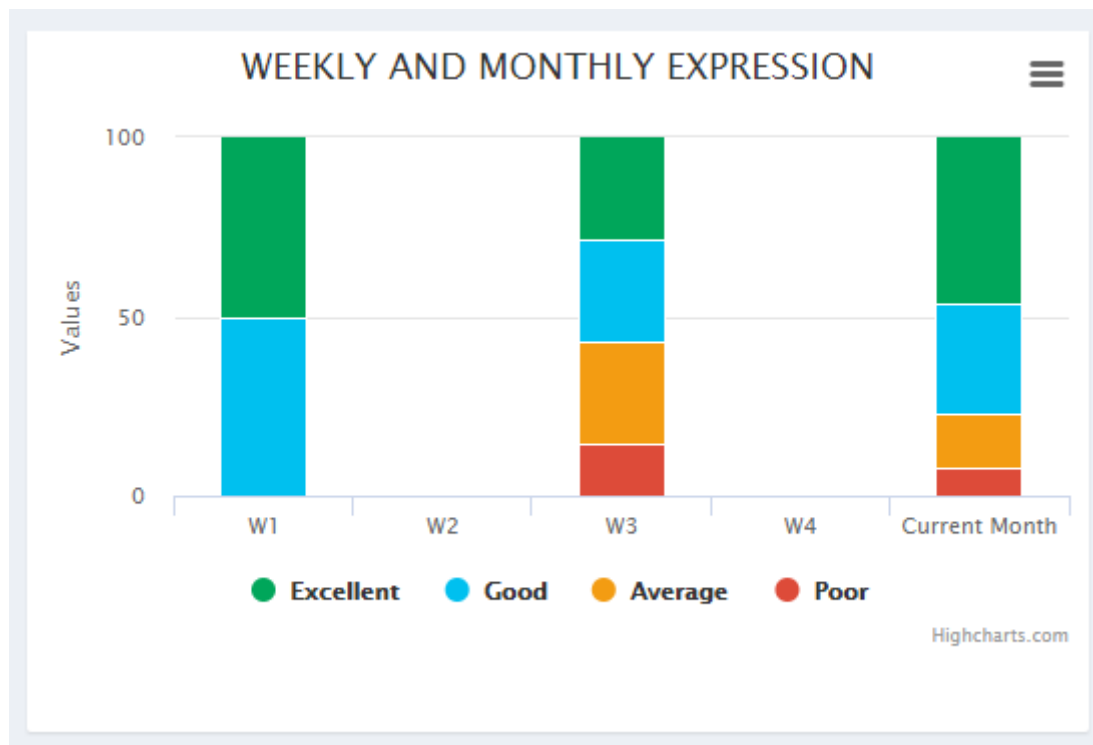


Figure 4.4.4 – Weekly and monthly Feedback Status

Description: This is the Weekly and monthly Feedback Status.

4.4.5 Yearly Feedback ratio

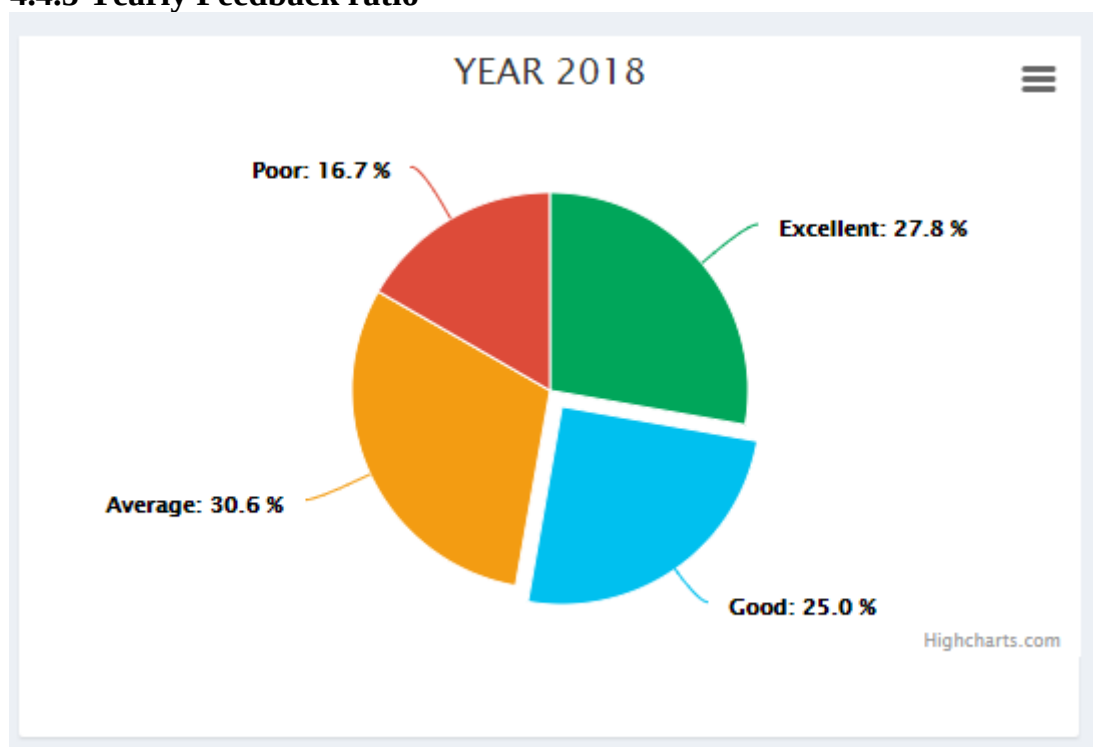


Figure 4.4.5 – Yearly Feedback ratio

Description: This is the Yearly Feedback ratio.

4.4.6 Monthly Comparison using Barchart

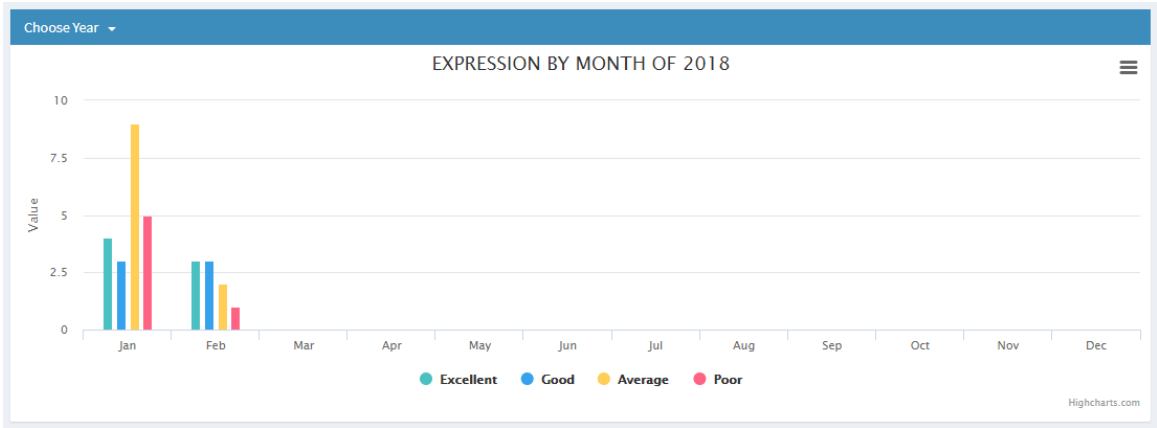


Figure 4.4.6 – Monthly Comparison using Barchart

Description: This is the Monthly Comparison using Barchart.

Chapter 5

Conclusion & Future Work

5.1 Conclusion

At the end of this project, we will review some demands and features of the tab-base feedback system.

First of all, a customer feedback system must be exposed and usually accepted in the organization. Customer Feedback data from the system should be comparable.

User interface in the customer feedback system must be user friendly

Here are six top reasons why customer satisfaction is so important:

1. It is like a meter of how a customer will make a purchase of their future plan.
2. It is a differentiator in the competitive market.
3. The system will reduces customer crowd.
4. It generate a lifetime value of a customer

5.2 Future Work

I have a plan to modify my application for the Future Work. I strongly believe that this work will help me in my future work.

The goal of this project is to manage each and every section.

References

- [1] Highcharts Pie chart: Link: <https://www.highcharts.com/demo/pie-basic>.
- [2] Guidelines for customer services and complaint management, Link: https://www.bb.org.bd/aboutus/regulationguideline/ficsd/cipc_eng.pdf
- [3]http://wiki.answers.com/Q/What_are_the_advantage_and_disadvantage_of_using_HTML. [Accessed: 11- Nov- 2017].
- [4] http://php.about.com/od/phpbasics/p/php_reasons.htm. [Accessed: 11- Nov-2017].
- [5] http://www.w3schools.com/html/html_basic.asp, . [Accessed: 11- Feb-2017].
- [6] <http://w3schools.com>. [Accessed: 10- Dec- 2017].
- [7] <http://stackoverflow.com>. [Accessed: 10- Dec- 2017].
- [8] <http://tutorialspoint.com>. [Accessed: 10- Dec- 2017]
- [9] <http://php.net/manual/en/tutorial.php> [Accessed: 15- Dec - 2017]
- [] <https://www.mysql.com/> [Accessed: 18- Dec - 2017]