FEEDBACK SYSTEM

Submitted By:

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ABSTRAST

Feedback is the most important element of evaluation in education process as it provides members of the institute with a statement of their learning and advice about improving the system. The existing system for evaluation being used at most of the universities and institutions, relies on inflexible paper system that uses outdated and labor-intensive technology. This project suggests a system to reduce the workloads and time consumption of staff members who must process forms and transcribe written comments before releasing the evaluations for faculty review and generating statistical reports for their progress, and also, improve the quality of feedback that play the important role to enhance the instructor's performance.

The purpose of the Feedback Management System project is to develop a system that automates the processes of feedback and evaluation in an educational institute and build a new system to reduce the manual work involved in the previous system.

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INTRODUCTION

Aims and Objectives

The main objective of ‘Feedback System’ is to manage the details and take the feedback from students, alumni and employers who are the end users. It manages all the information about students, alumni, employers and courses. The project is built such that any end user can register or login and give feedback from anywhere. The administrative can access the feedback given and generate necessary reports. The purpose of the project is to build an application program to reduce the manual work and also save resources at the same time.

Background

The already existing feedback system regarding courses end survey, exit survey, alumni survey and employer survey is a manual paper-based system. It takes a lot of effort to get the necessary people to give the survey and then generate reports based on it as it all manual.

The ‘Feedback System’ has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some cases, reduce the hardships faced by the existing system. Moreover, this system is designed for the particular need of the institution to carry out operations in a smooth and effective manner.

This software is designed to assist in strategic planning, and will help ensure that the institution is equipped with the right level of information and details for the institution’s future goals.

SYSTEM ANALYSIS

Software Requirement Specification

- A web application will be designed and built for online service for feedback.
- The project will have three components: student, alumni and employer feedback.
- There will be a registration and login page for users to uniquely identify them and input their basic details, which will be stored in the database.
- There will be an admin who can monitor and modify the feedback questions.
- Once the user is registered, they can login with their USN or employer email ID and password.
- After the users are logged in, they can provide feedback on relevant topics.
- Students will be able to provide feedback on courses from 1st semester till the semester they are currently in. Students in 8th semester can provide exit feedback.
- Alumni will be able to give alumni feedback.
- Employer can provide feedback regarding the students they have employed from the institution.
- The feedback data can be visualized to provide insights regarding the quality of education in the institution.

Software Tools Used

- Front End: HTML, CSS, JavaScript, Google Charts
- Back End: MySQL
- Server-Side Language: PHP
- Software Used:
    - Notepad++
    - XAMPP
    - PhpMyAdmin
    - Google Chrome
    - ERDPlus

Operation Environment

Hardware Requirements

Processor : 1.5GHz

RAM : 4 GB

Monitor : 13” Display

Software Requirements

Operating System : Windows 7

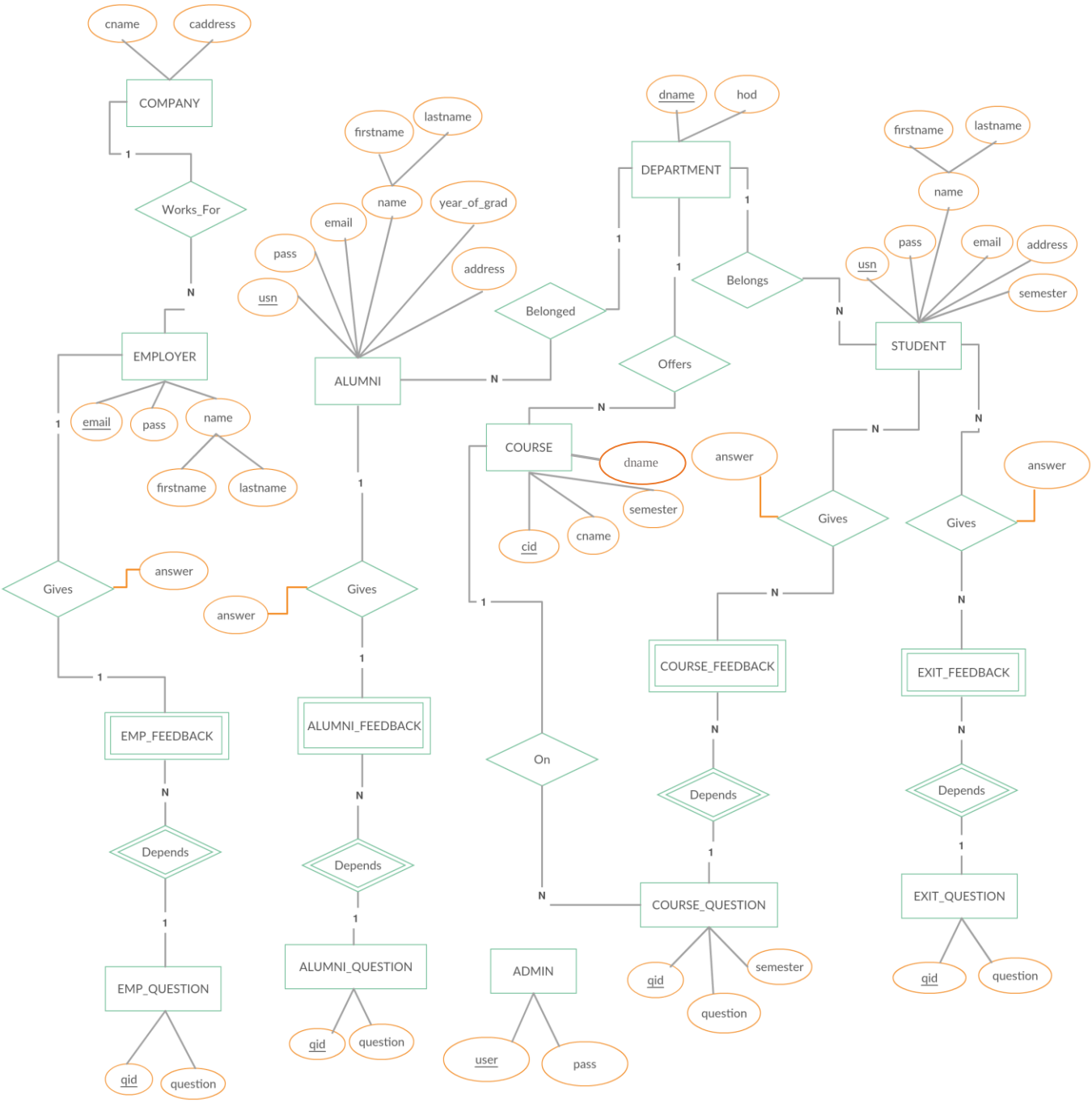
Developing Tools : JavaScript, PHP, SQL

Browser : Google Chrome or any HTTP browser

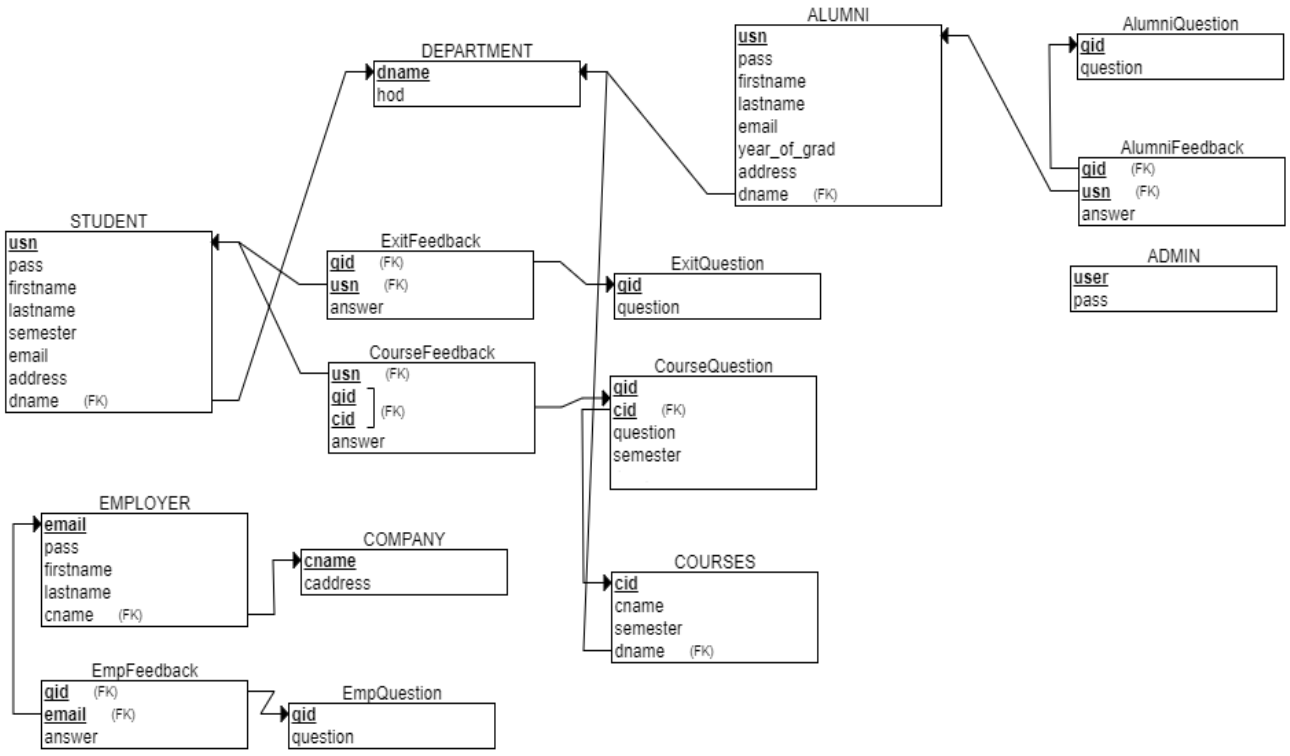
Database : MySQL

SYSTEM DESIGN

ER Model



Schema Description



Tables Description

STUDENT

Field	Type	Null	Key	Default	Extra
usn	varchar(20)	NO	PRI	*NULL*	
pass	varchar(50)	NO		*NULL*	
firstname	varchar(50)	NO		*NULL*	
lastname	varchar(50)	NO		*NULL*	
semester	int(1)	NO		*NULL*	
email	varchar(50)	NO		*NULL*	
address	varchar(100)	NO		*NULL*	
dname	varchar(50)	NO	MUL	*NULL*	

ALUMNI

Field	Type	Null	Key	Default	Extra
usn	varchar(20)	NO	PRI	*NULL*	
pass	varchar(50)	NO		*NULL*	
firstname	varchar(50)	NO		*NULL*	
lastname	varchar(50)	NO		*NULL*	
email	varchar(50)	NO		*NULL*	
year_of_grad	int(4)	NO		*NULL*	
address	varchar(100)	NO		*NULL*	
dname	varchar(50)	NO	MUL	*NULL*	

EMPLOYER

Field	Type	Null	Key	Default	Extra
email	varchar(50)	NO	PRI	*NULL*	
pass	varchar(50)	NO		*NULL*	
firstname	varchar(50)	NO		*NULL*	
lastname	varchar(50)	NO		*NULL*	
cname	varchar(50)	NO	MUL	*NULL*	

COMPANY

Field	Type	Null	Key	Default	Extra
cname	varchar(50)	NO	PRI	*NULL*	
caddress	varchar(100)	NO		*NULL*	

DEPARTMENT

Field	Type	Null	Key	Default	Extra
dname	varchar(50)	NO	PRI	*NULL*	
hod	varchar(50)	NO		*NULL*	

COURSE

Field	Type	Null	Key	Default	Extra
cid	varchar(20)	NO	PRI	*NULL*	
cname	varchar(50)	NO		*NULL*	
semester	int(1)	NO		*NULL*	
dname	varchar(100)	YES	MUL	*NULL*	

COURSEQUESTION

Field	Type	Null	Key	Default	Extra
qid	int(11)	NO	PRI	*NULL*	
cid	varchar(20)	NO	PRI	*NULL*	
question	varchar(100)	NO		*NULL*	
semester	int(11)	NO		*NULL*	
dname	varchar(50)	NO		*NULL*	

EXITQUESTION

Field	Type	Null	Key	Default	Extra
qid	int(11)	YES		*NULL*	
question	varchar(100)	YES		*NULL*	

ALUMNIQUESTION

Field	Type	Null	Key	Default	Extra
qid	int(11)	YES		*NULL*	
question	varchar(100)	YES		*NULL*	

EMPQUESTION

Field	Type	Null	Key	Default	Extra
qid	int(11)	YES		*NULL*	
question	varchar(100)	YES		*NULL*	

COURSEFEEDBACK

Field	Type	Null	Key	Default	Extra
qid	int(11)	NO	PRI	*NULL*	
cid	varchar(20)	NO	PRI	*NULL*	
usn	varchar(20)	NO	PRI	*NULL*	
answer	varchar(100)	NO		*NULL*	

EXITFEEDBACK

Field	Type	Null	Key	Default	Extra
qid	int(11)	NO	PRI	*NULL*	
usn	varchar(20)	NO	PRI	*NULL*	
answer	varchar(100)	NO		*NULL*	

ALUMNIFEEDBACK

Field	Type	Null	Key	Default	Extra
qid	int(11)	NO	PRI	*NULL*	
usn	varchar(20)	NO	PRI	*NULL*	
answer	varchar(100)	NO		*NULL*	

EMPFEEDBACK

Field	Type	Null	Key	Default	Extra
qid	int(11)	NO	PRI	*NULL*	
email	varchar(50)	NO	PRI	*NULL*	
answer	varchar(100)	NO		*NULL*	

ADMIN

Field	Type	Null	Key	Default	Extra
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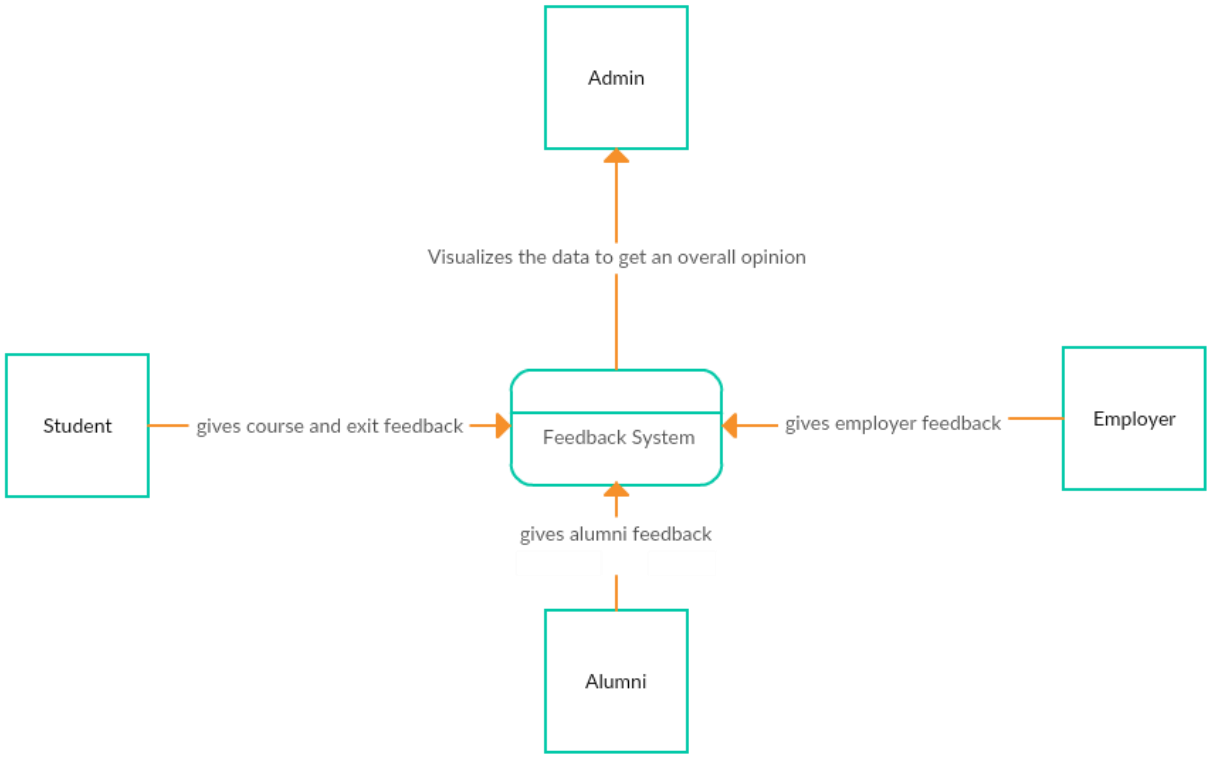
pass	varchar(50)	NO		*NULL*	

Dataflow Diagram



SYSTEM IMPLEMENTATION

Module Description

STUDENT

Student can register and login into the feedback system using their USN. After logging in with the right credentials, they can select the semester and course and then rate it based on different aspects. The rating ranges from 1 to 5 (Very Bad to Excellent). Student belonging to 8^{th} semester can also give the exit survey. If the student tries to give feedback to an already rated course, the system will alert him. Therefore, a course cannot be rated twice by the same student.

ALUMNI

Alumni can register and login into the feedback system using their USN. After logging in with the right credentials, they can give the general alumni survey. If the user tries to give the survey for the second time, the system will alert him.

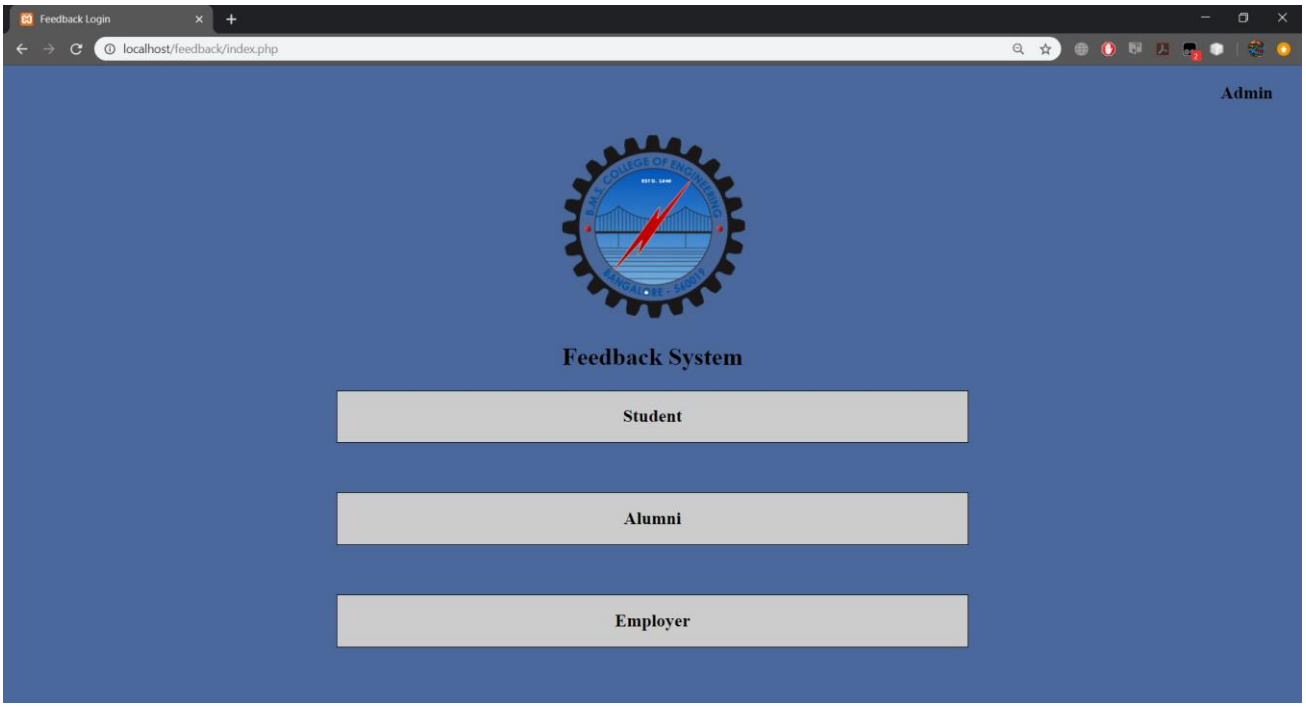
EMPLOYER

Employer can register and login into the feedback system using their e-mail. After logging in with the right credentials, they can give the general employer feedback. The feedback consists of questions regarding the quality of the students they hired. If the user tries to give the survey for the second time, the system will alert him.

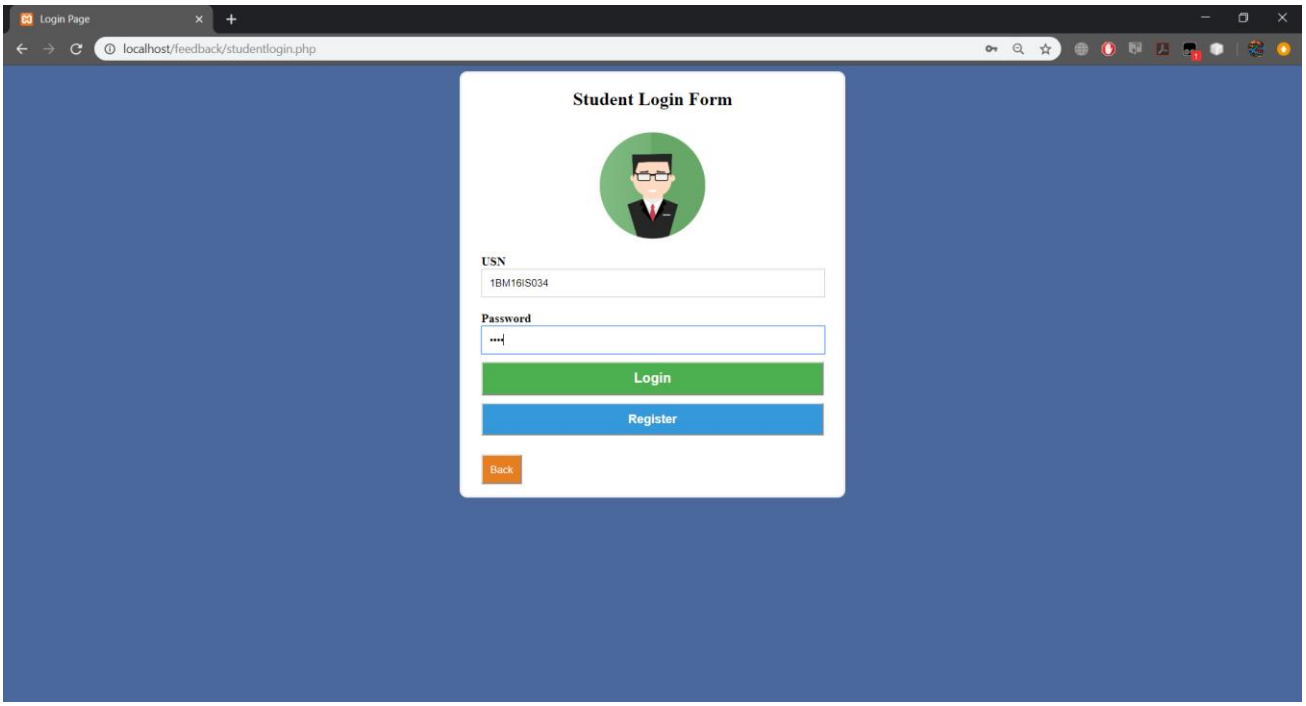
ADMIN

Admin can login into the feedback system using the admin username and password. After logging in with the right credentials, they can see the visualized ratings (pie charts) of various categories of feedback data. In student course feedback, they can choose the course and the question to visualize the overall opinion from the collection of data. Similarly, he can do the same with alumni and employer feedback data.

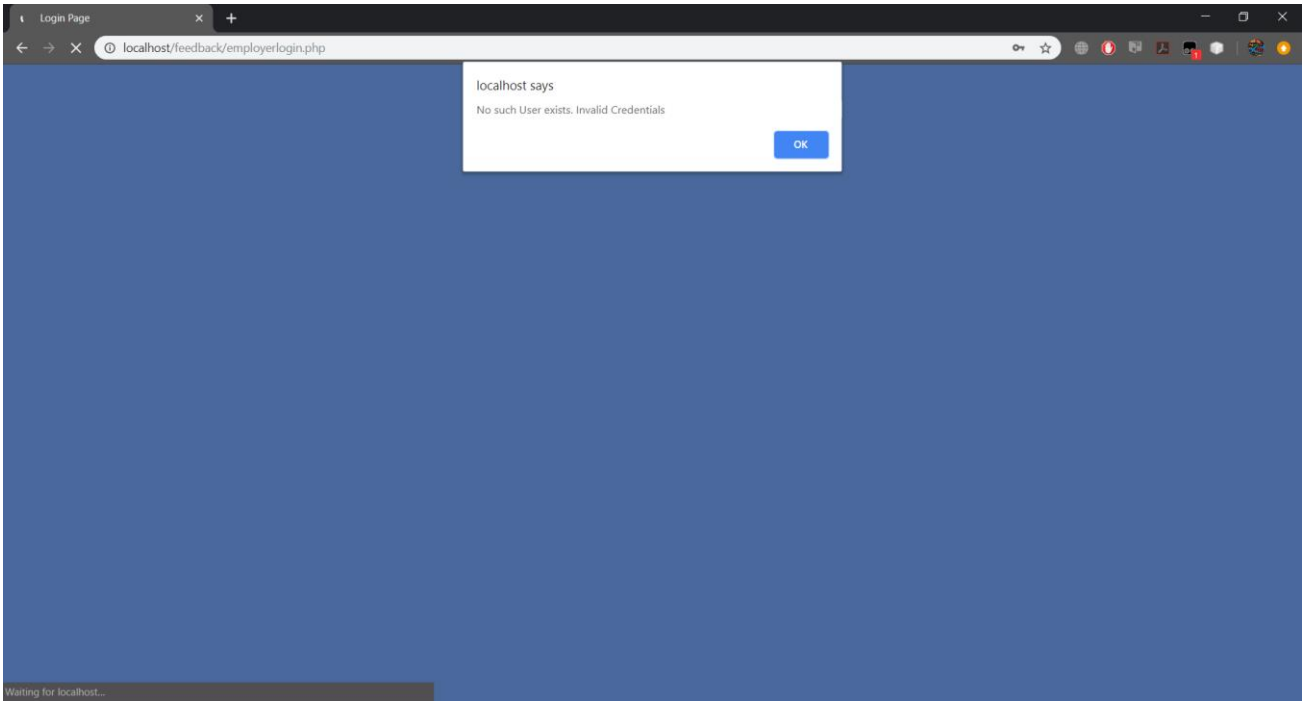
Screenshots



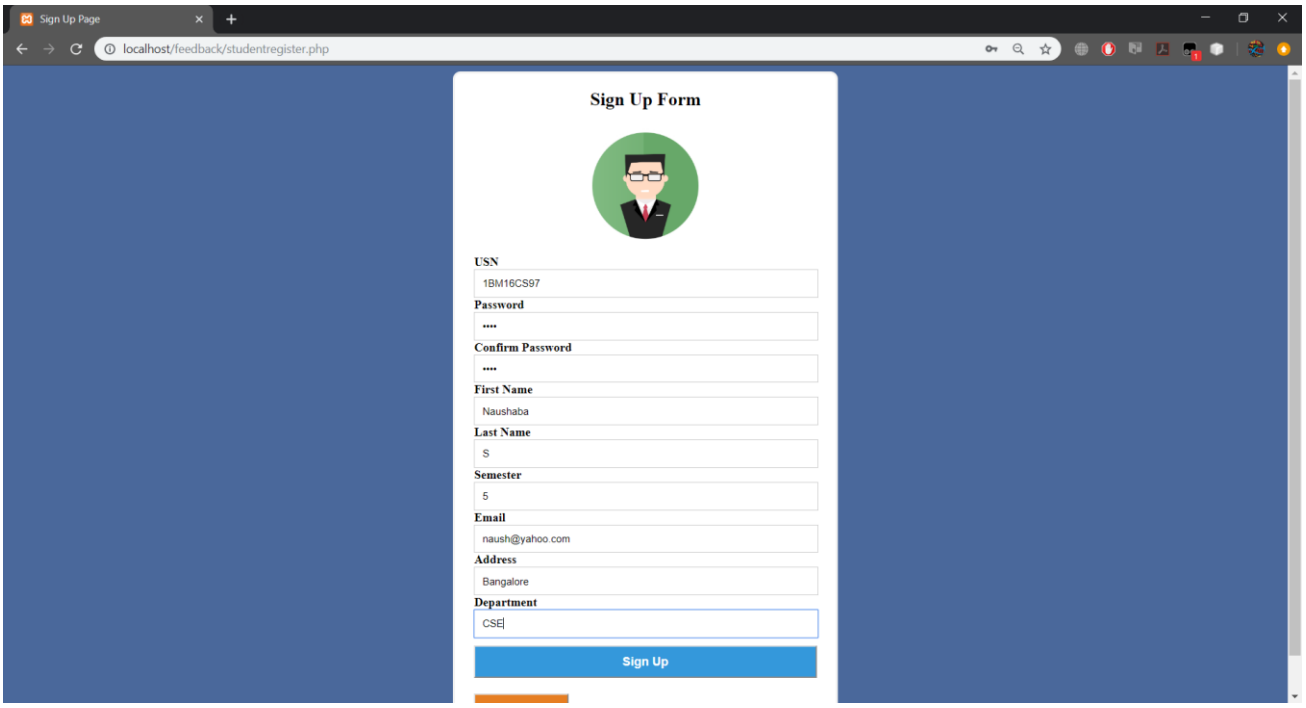
Main page



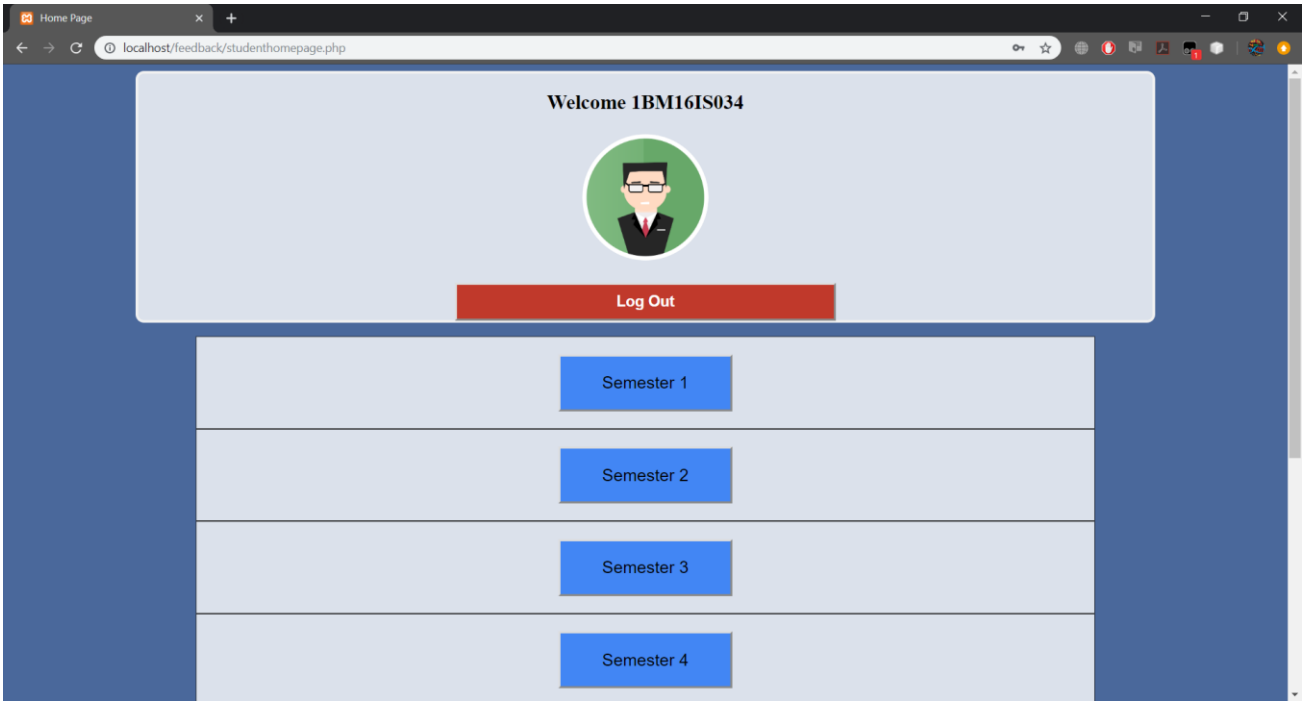
Student login page (Looks similar for Alumni, Employer and Admin)



If invalid login details are entered

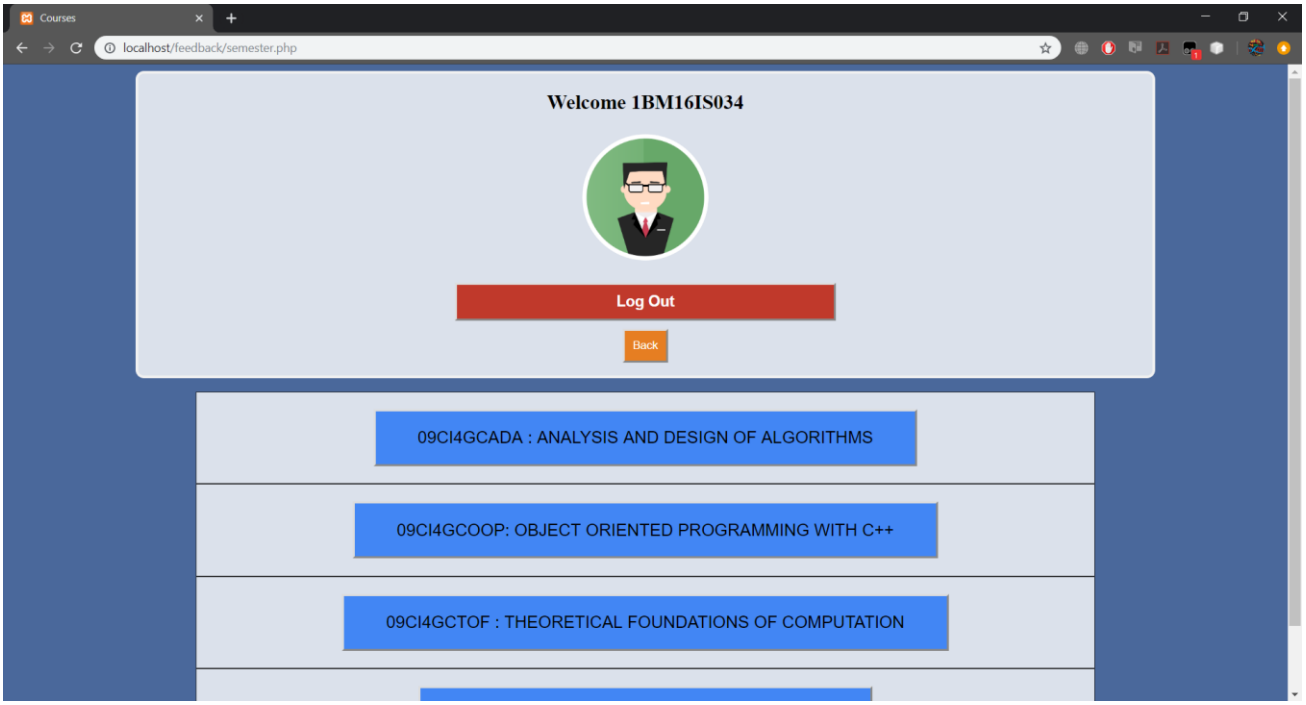


Student register page (looks similar for Alumni and Employer)

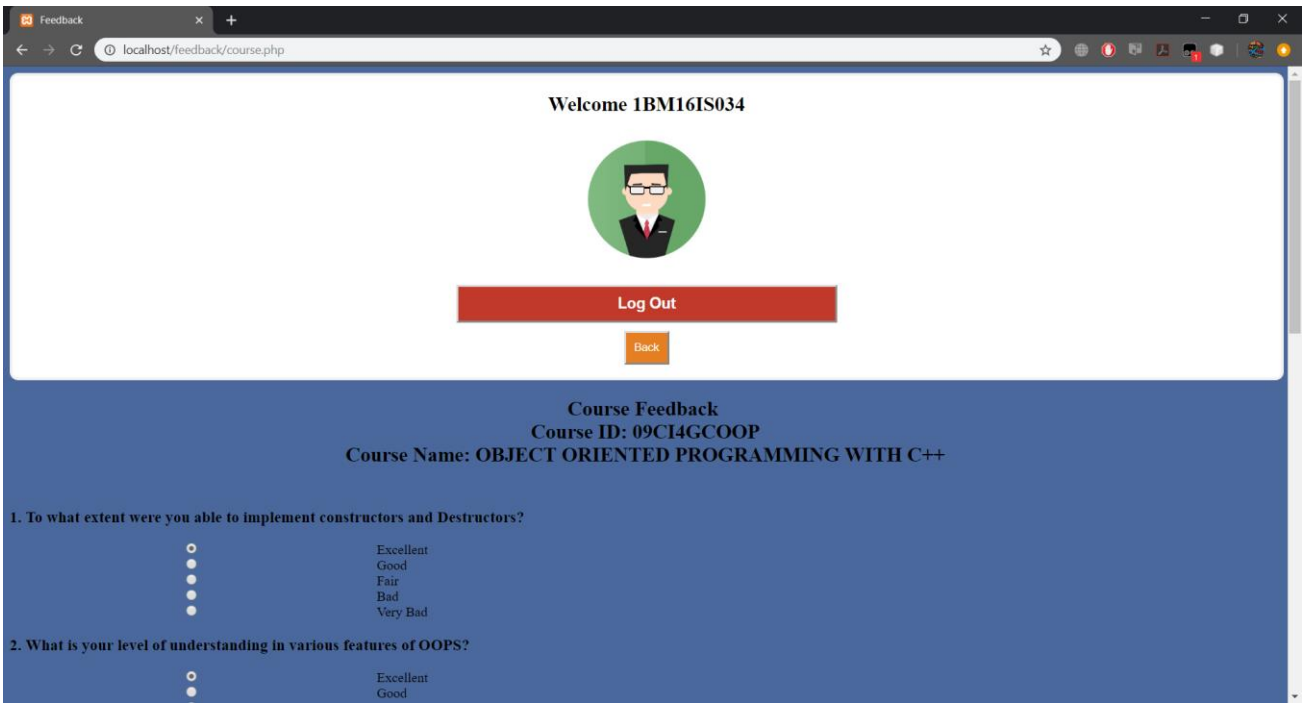


Student home page after login

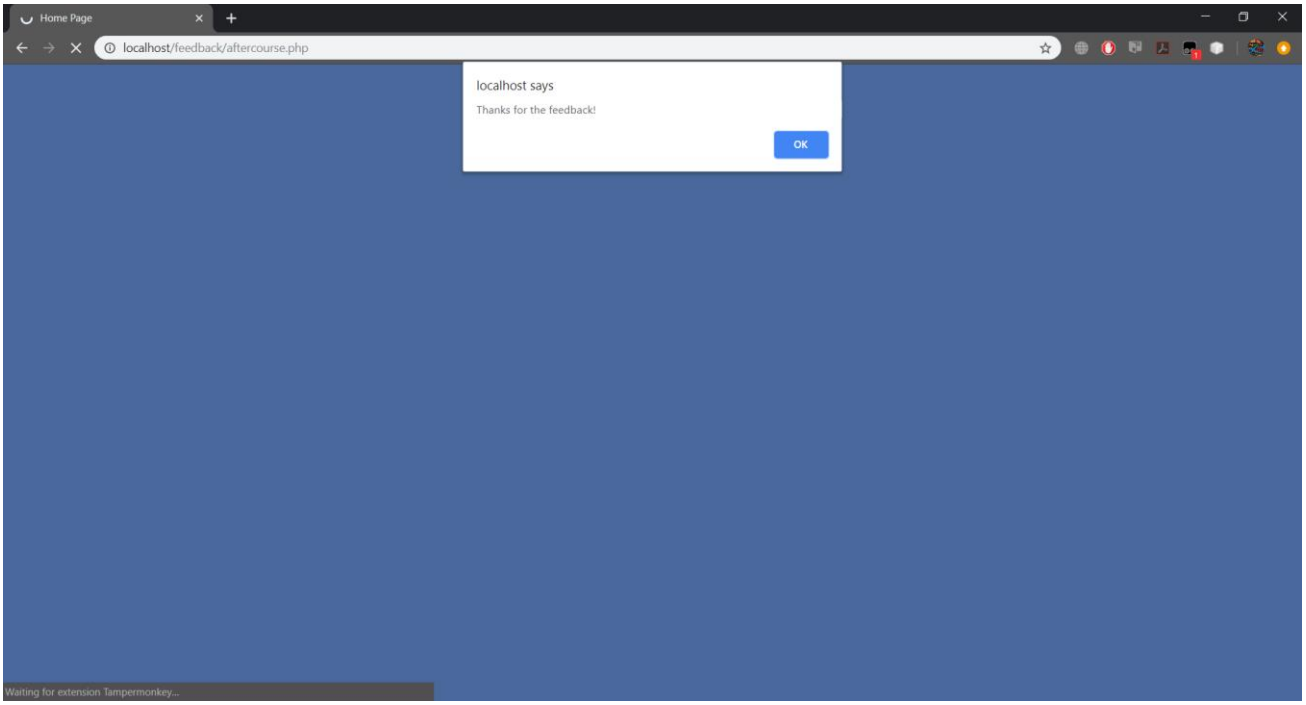
Exit survey option will appear for 8th semester students



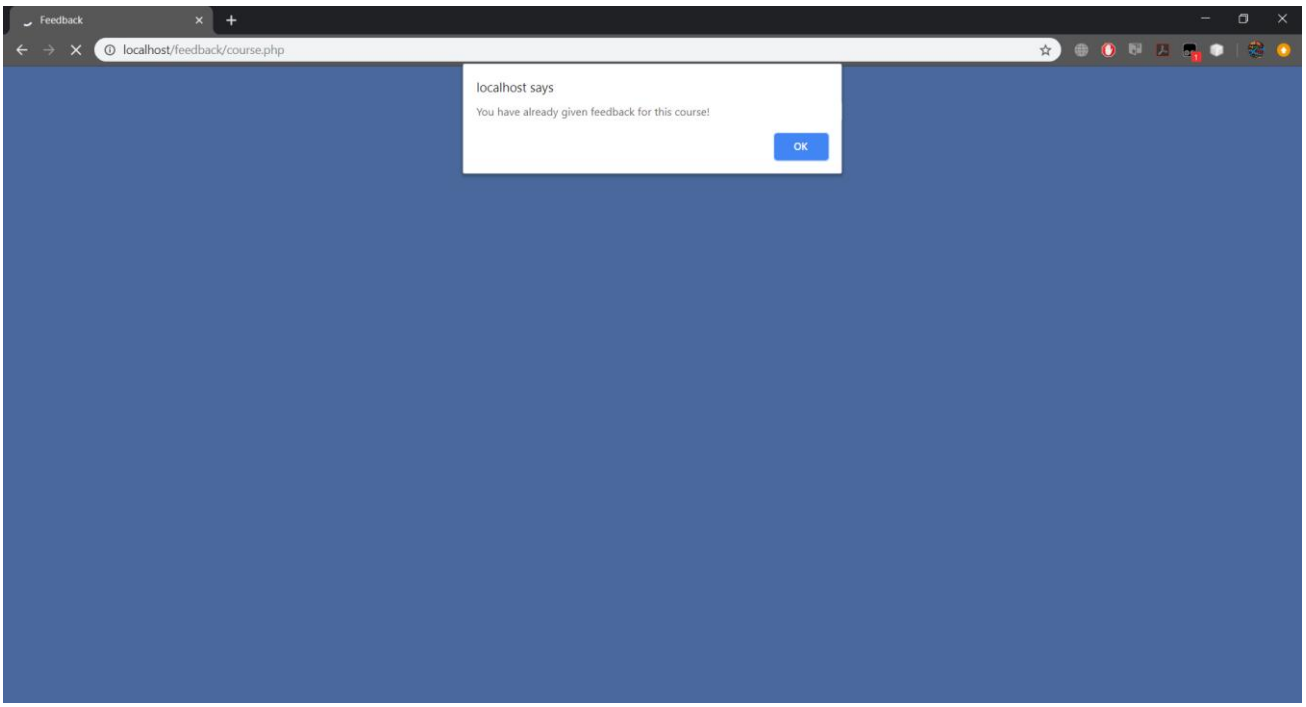
Courses in each semester according to the student



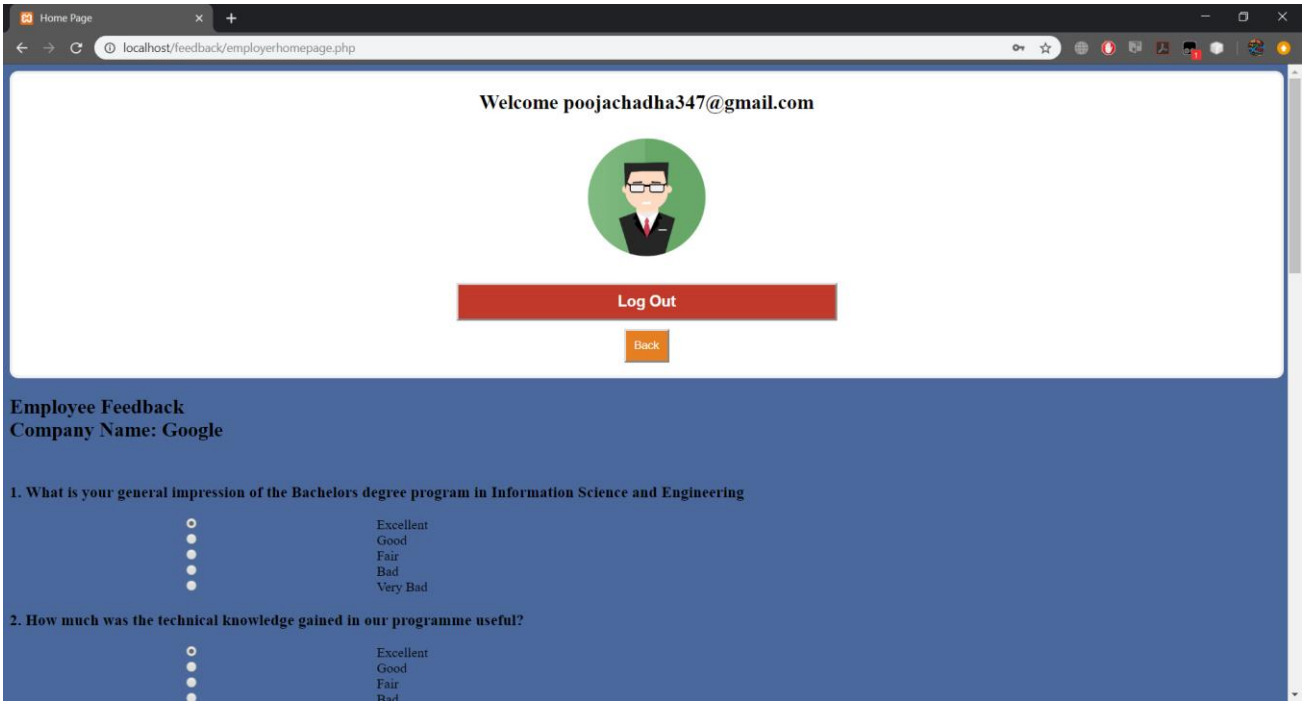
Feedback page for each course



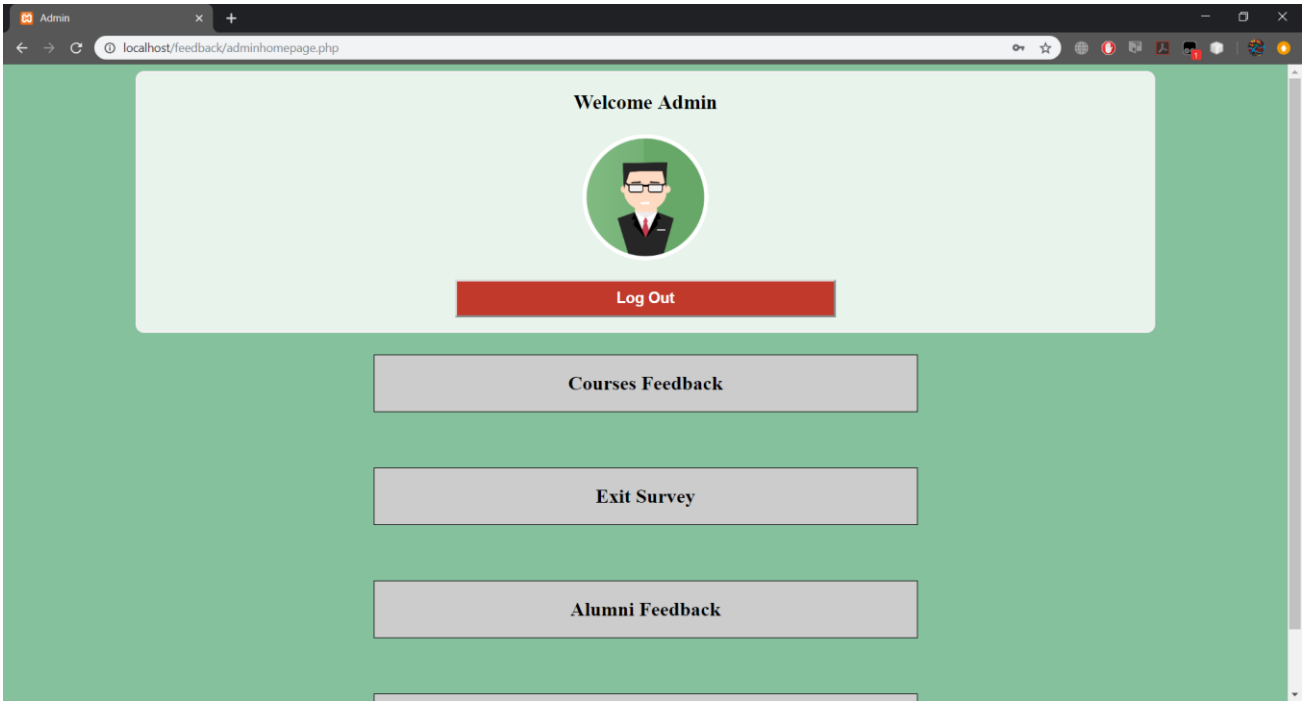
After giving the feedback



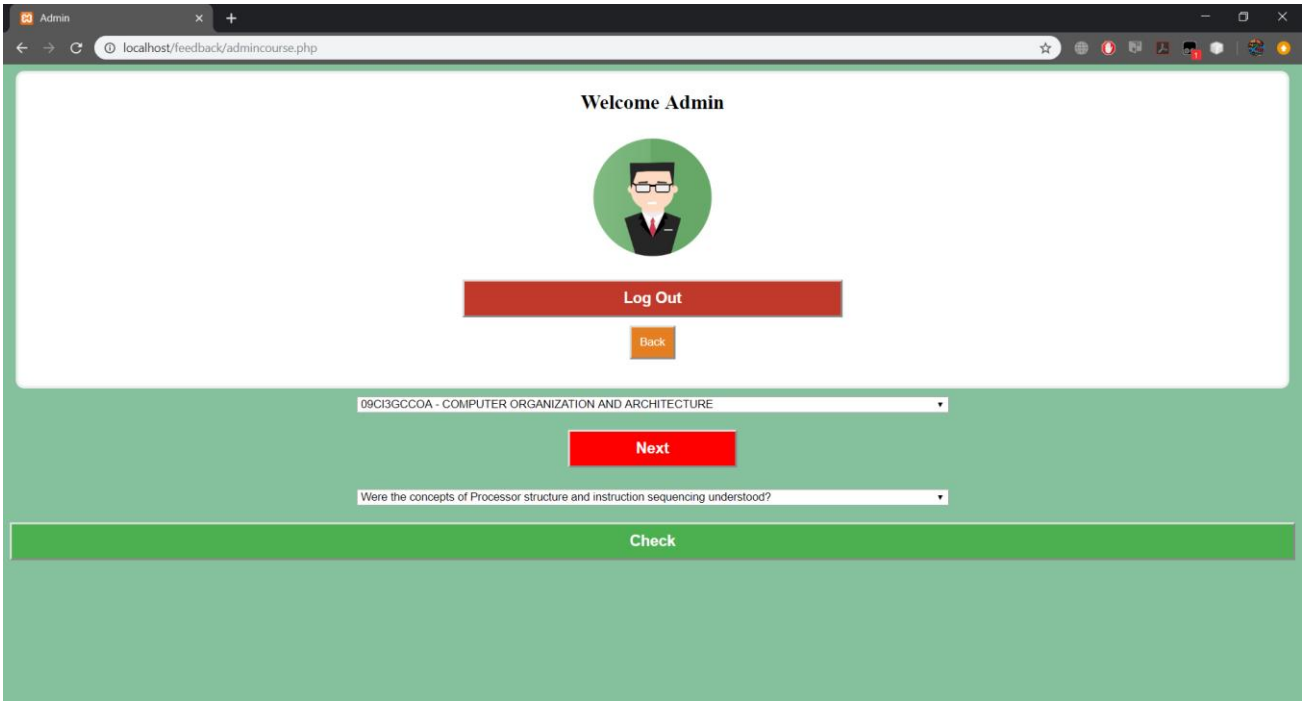
If user tries giving feedback again for the same course



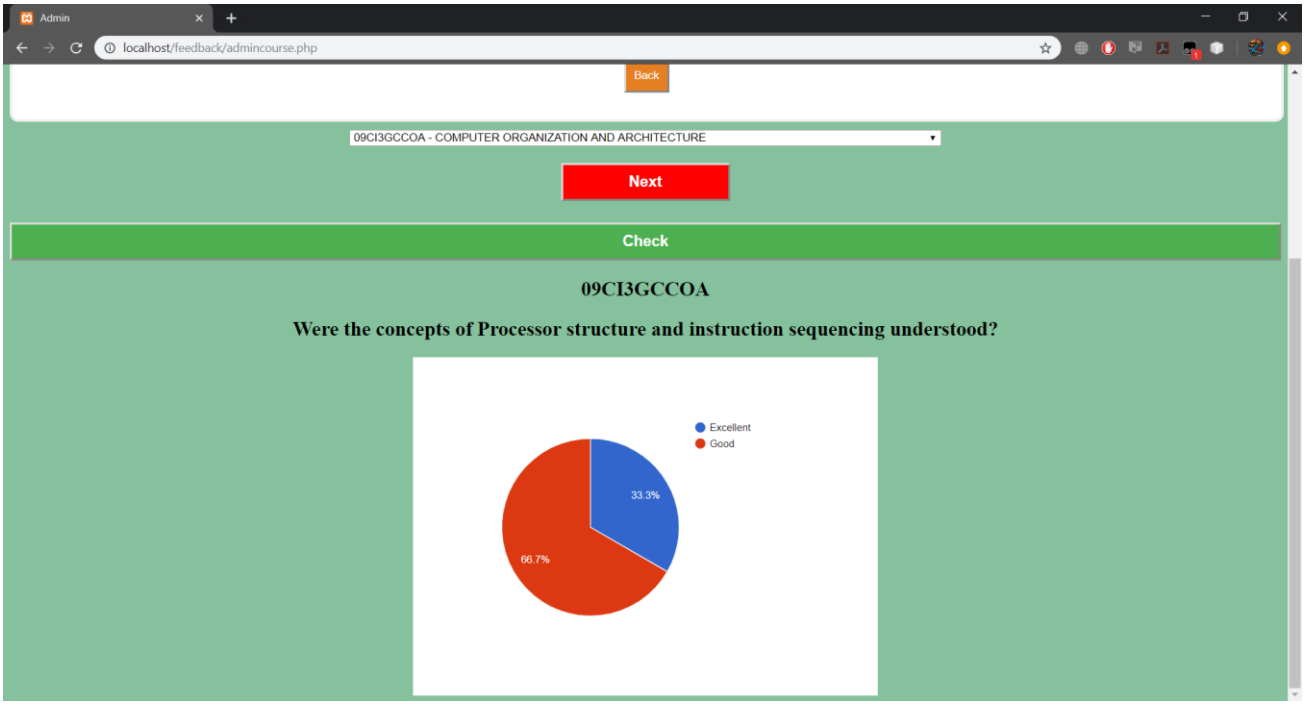
Employer feedback page (after login page)



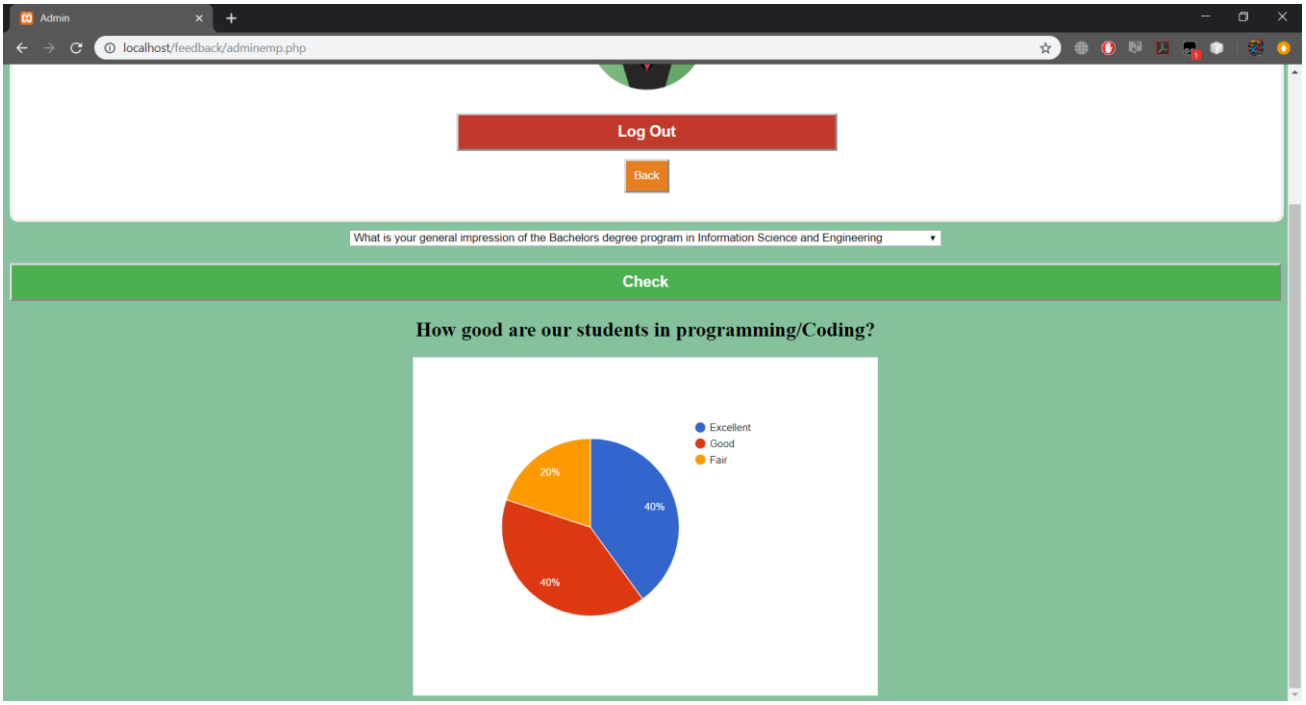
Admin home page



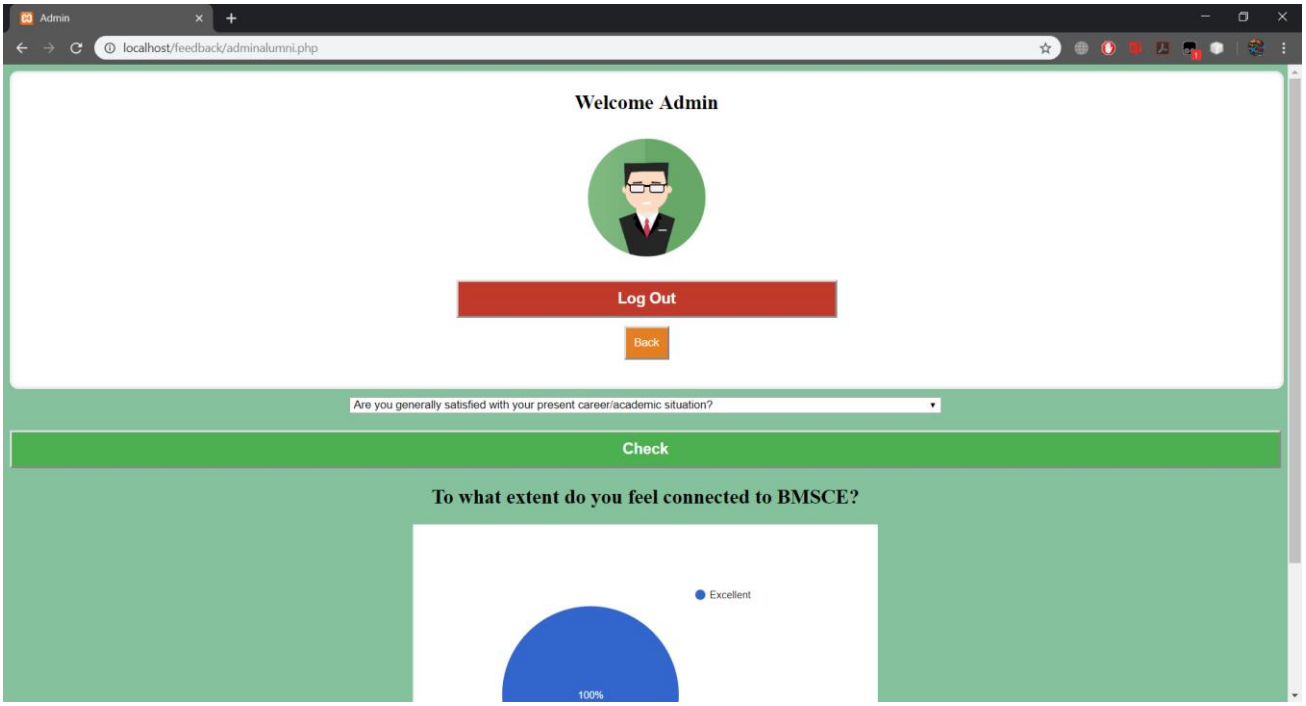
Admin accessing course feedback



Admin can visualize the feedback according to the questions for each course



Admin visualizing employer feedback



Admin visualizing alumni feedback

SYSTEM TESTING

In a software development project, errors can be injected at any stage during the development. Testing performs a very critical role for quality and for ensuring the reliability of software. During testing, the program to be tested is executed with set of test cases, and the output of the program for the test cases is evaluated to determine if the program is performing as it is expected to. Testing forms is the first step in determining the errors in the program. Clearly the success of testing in revealing errors in programs depends critically on the test cases. Testing is usually relied upon to detect the faults that occur during any phase of the software development cycle, in addition to the faults that introduced during the coding phase itself. For this, different levels of testing are used which perform different tasks and aim to test different aspects of the system. The basic levels of testing are unit testing, integration testing, system and acceptance testing.

Unit Testing

Unit testing is a dynamic method for verification, where the programs is actually compiled and executed. It is one of the most widely used method, and the coding phase is sometimes called "coding and unit testing phase", as in other forms of testing, unit testing involves executing the code with some test cases and then evaluating the results. The goal of unit testing is to test modules or "units" and not the entire software system. The programmer himself most often does unit testing, the programmers, after finishing the coding of a module, tests it with some data. The tested module is then delivered for system integration and further testing. Some of the unit testing we have performed include validating of login and register with and without any data entered, trying to give redundant feedback and trying to visualize the data in the admin module. All the unit test cases were successfully passed with expected results.

Integration Testing

After the unit testing the modules is gradually integrated into subsystem, which are then integrated them to eventually form the entire system. During integration of modules, integration testing is performed. The goal of this testing is to detect design errors, while focusing on testing the interconnection between modules. After the system is put together, system testing is performed. here the system is tested against the system requirements to see if all the requirements are met and the system performs as specified by requirements. The entire software is tested and the goal is to see if the software meets the requirements.

CONCLUSION AND FUTURE SCOPE

To conclude, Feedback System incorporates all the given requirements for system which can take, manage and visualize the feedback from students, alumni and employers of an institution in a simple and effective manner. The system has been developed as versatile and user friendly as possible while keeping in mind the advanced features in this technology.

The future scope for the project could include working with different types of survey questions instead of just rating between ‘Excellent’ to ‘Bad’. We can also add the additional feature of visualizing the data in which ever the format the admin wishes such as bar charts, histograms or scatter charts instead of just pie charts.

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