A PROJECT REPORT

ON

"CAMPUS CONNECT"

SUBMITTED IN

THE PARTIAL FULFILLMENT FOR THE DEGREE OF

BACHELOR OF COMPUTER APPLICATION (VIth SEMESTER)

(AFFILIATED TO HEMVATI NANDAN BAHUGUNA GARHWAL UNIVERSITY)

(A CENTRAL UNIVERSITY)

UNDER THE SUPERVISION OF

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2021-2024

PROJECT CERTIFICATE

This is to certify that the project report entitled "**CAMPUS CONNECT**" submitted to **HNB Garhwal University**, Srinagar, in partial fulfilment of the requirement for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS**, is original work carried out by myself Mr. Mohit Kumar under the Supervision of Prof. Vishant Kumar.

The matter embodied in this project is genuine work done by myself and has not been submitted whether to this University or to any other University for the fulfilment of the requirement of any course of study.

Date:

Name and signature of the student: Name and Signature of Supervisor:

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Certificate by Guide

Certified that Mohit Kumar of Bachelors of Computer Application has worked under my Guidance.

Name and Signature

Date:

Certificate by Supervisor

Certified that Mohit Kumar of Bachelors of Computer Application has worked under my Supervision.

Name and Signature

Date:

Declaration

I, the undersigned Mohit Kumar student of Bachelor in Computer Applications Semester-VI hereby declare that the project work presented in this report is my own work andhas been carried out under the guidance of **Prof. Vishant Kumar,** of the Department of IT, **Doon Business School, Dehradun**.

This work has not been previously submitted to any other University/College for any examination.

Name and Signature:

Date:

Acknowledgement

This Major Project is the result of contribution of many minds. I would like to acknowledge and thank my project guide and Class Coordinator Prof. Vishant Kumar and my program coordinator Prof. Saurabh Singh for his valuable support and guidance. He guided me through the process from start till the completion of this project. I would also like to thank my all faculties. I thank to lab staff members and other nonteaching members.

I am very thankful for the open-handed support extended by many people. While no list would be complete, it is my pleasure to acknowledge the assistance of my friends who provided encouragement, knowledge and constructive suggestions.

Table of Contents

1. Introduction

1.1 Campus Connect an Overview

The purpose of Online Grievance System for colleges and other educational institutes, for better automation in focus. Grievances System cell deals with all types of grievances, complaints and malpractices including those received from Students, Faculty and other Stakeholders. " With the help of this module institute can provide it's user with a benefit to share their inconvenience with the institute and providing solutions. This web app provides helping hand to students and staff by acknowledging and solving their problems. It maintains the healthy environment for stakeholders of the institute. Institutes need to exercise prudence in such important matters. We understand your institute's need to be fair in complaints handling processes. Thus we provide this dynamic module to handle it all at one place.

Campus Connect believes that providing on time and competent service is essential to maintain the freedom of the students in the campus. This is the revolutionary online grievance handling mechanism aims at minimizing instances of complaints in professional colleges through effective tracking and monitoring of grievances ensuring prompt redressal. This portal for online registration and disposal of grievances help users obtain immediate response and resolution to their grievances from the institution itself.

By establishing online complaint redress mechanism in colleges, the council can take into account the performance of the institution and ensure the institution meets all the required standards. This grievance administration system enables effective monitoring and submission of online monthly status report regarding the number of grievances received, disposed of and the ones pending on the last day of the previous month, as per the council directive.

1.2 Objective and Scope of the Project

Objective:

To provide an opportunity for the students to freely express their grievance, with utmost anonymity.

To set up a mechanism for speedy and expeditious resolution of the grievance.

To provide an appropriate counseling to the students in the process of resolving the grievance.

Scope:

- To ensure a student friendly democratic environment in the campus.
- To make all the students, faculty and staff aware about their rights and duties.
- To solve the various personal and educational related grievances of the student.
- To ensure the qualitative as well as quantitative development of the institution through the complaints and grievance redressal cell

2. SYSTEM ANALYSIS

2.1 Proposed system

2.1.1 Defining the Problem

- ➢ The Protection of Freedom of Expression.
- ➢ Protection against improper academic evaluation
- ➢ Faculty and students should be ethical, moral and should behave in a manner with good academic interest and should maintain decent academic relations with teachers and co-students and co-operate with college authorities to maintain vibrant and decent academic environment.
- ➢ In the proposed system we tried to provide the high security than the existing system.
- ➢ We will provide friendlier environment than the existing one.

Definition of Problem

Prone to Damage and Being Misplaced

Manual document filing means you are placing faith in the people handling the files. There are so many ways they can be damaged, lost, or misplaced. A fire or natural disaster could mean the loss of all your clients' important information. You will have to start over at square one getting the information back. It can also lead you to losing clients who don't appreciate your mishandling of their information.

Hard to Make Changes

When you are working with paper documents it is much harder to make changes. Every time you want to make a change you will have to make a copy, so you don't destroy the original with any edits or comments you might add. This means the editing process is more time consuming than if you were working with digital copies.

Access Time

Manual document filing is very time consuming. Not only do you have to organize and store the files, hunting down the information when it is need can take time. It can take anywhere from minutes to hours to hunt down a file, depending on how well your organization is. This can cause annoyance for clients as well as for employees. Their productivity is lowered by having to spend excessive time dealing with a paper filing system.

Lack of Security

Paper document filing can be less secure than electronic filing systems. Misplaced documents can easily be placed in the wrong hands. Clients expect their information to be secure in your hands. If you can't keep this safe, you are at risk for losing them. A cabinet filled with files is way easier to access than a computer which requires a password and credentials to get into.

Higher Cost

When you use paper documents your costs are going to be higher because you are paying for ink and paper. Your office supply bill will be higher if you are using a manual document filing process. While you might think this is insignificant, overtime it's a lot of money that can be used in better ways.

2.1.2 Developing Solution Strategies

 Developing Solution Strategies For Campus Query Management Using Web App Introduction In today's digital era, effective query management is crucial for maintaining a safe and harmonious campus environment. Traditional methods of handling grievances can be time-consuming and inefficient. However, with the advancement of technology, developing a web application using My SQL and PHP can revolutionize the way campuses manage and address grievances. In this blog, we will explore the benefits of using a web app for campus grievance management and discuss strategies for its development. 1. Streamlined Process: Implementing a web app for campus grievance management allows for a streamlined and centralized process. Students and faculty can easily access the application, submit complaints, and track their progress in real-time. This eliminates the need for manual paperwork and simplifies the entire grievance management system. 2. Efficient Data Management: My SQL, a widely-used relational database management system, offers robust data management capabilities. By leveraging this technology, campus administrators can efficiently store and retrieve grievance-related data. This enables quick identification of trends, analysis of recurring issues, and effective decision-making to address grievances promptly. 3. Customizable Features: One of the significant advantages of developing a web app using PHP is its flexibility and customizability. Campus administrators can tailor the application to meet their specific requirements. Features such as grievance categories, priority levels, anonymous reporting, and document attachments can be incorporated, enhancing the overall usability and functionality of the web app. 4. Automated Notifications and Escalations: With a web app in place, automatic notifications and escalations can be implemented to improve the grievance resolution process. Administrators can set up email alerts to inform relevant parties about the status of their grievances, ensuring transparency and accountability. Additionally, automatic escalations can be triggered if a complaint remains unresolved within a specified timeframe, highlighting its importance to the appropriate authorities.

2.1.3 Flow Diagram

2.1.4 Data Flow Diagram

0-Level DFD
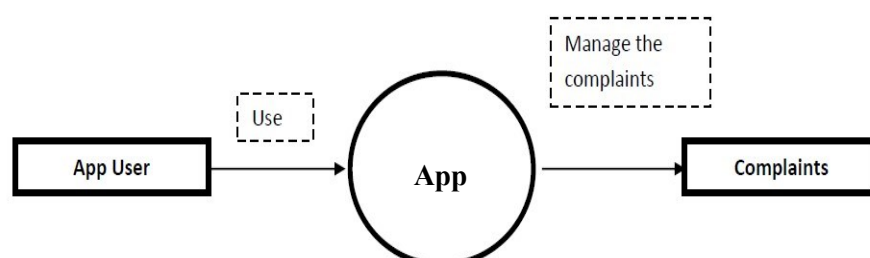
Fig 1: 0-level Diagram for the system

This is the highest-level DFD, which provides an overview of the entire system.
It shows the major processes, data flows, and data stores in the system.
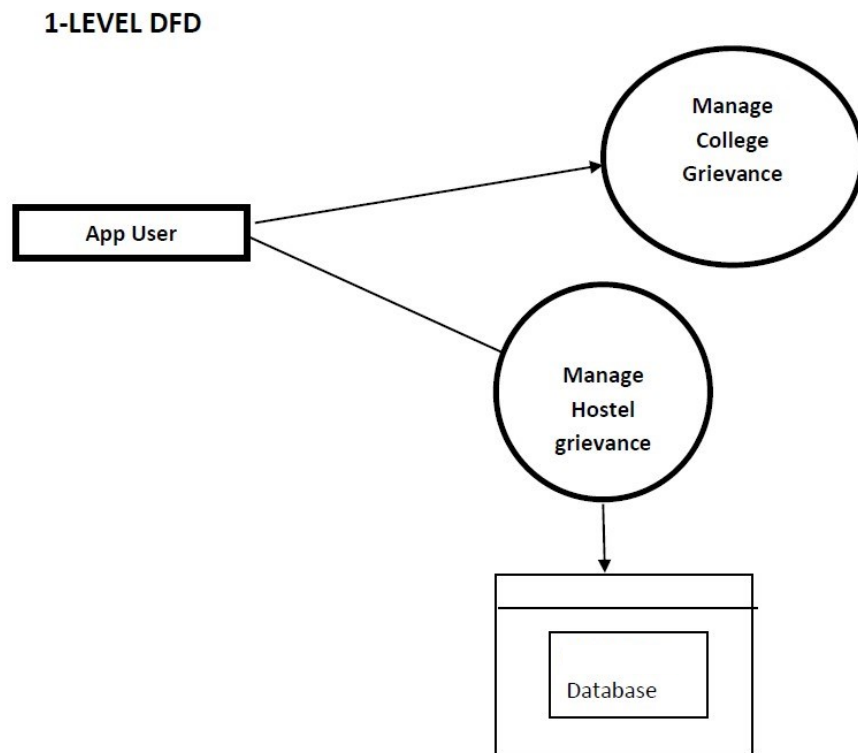
1-LEVEL DFD

Fig 2: 1-level Diagram for the system

This level provides a more detailed view of the system by breaking down the major processes identified in the level 0 DFD into sub-processes.
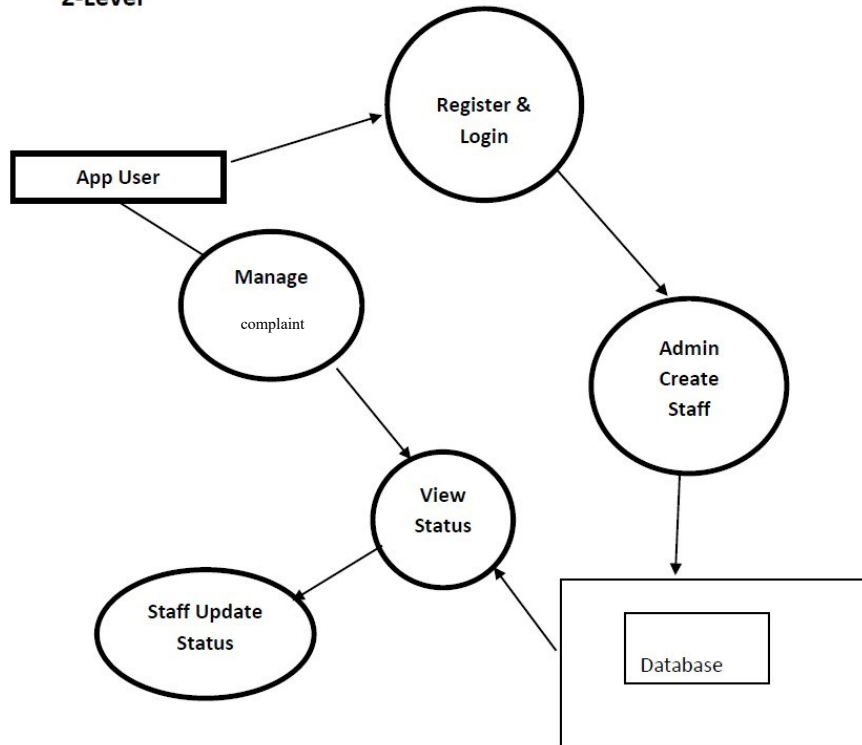
Fig 3: 2-level Diagram for the system

This level provides an even more detailed view of the system by breaking down the sub-processes identified in the level 1 DFD into further sub-processes.

LEVEL - 3

Start

User Registration&

Create Grievance

View Grievance Status

Staff Login & Update Status

Admin Manage All Details
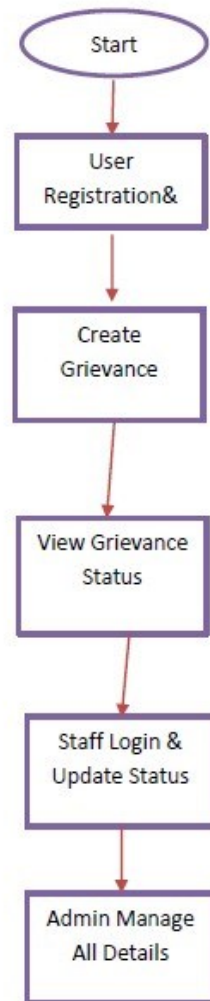
Fig 4: level-3 Diagram for the system

This is the most detailed level of DFDs, which provides a detailed view of the processes, data flows, and data stores in the system.

Use-case Diagrams:

Use case diagrams model behaviour within a system and helps the developers understand of what the user require. The stick man represents what's called an actor. Use case diagram can be useful for getting an overall view of the system
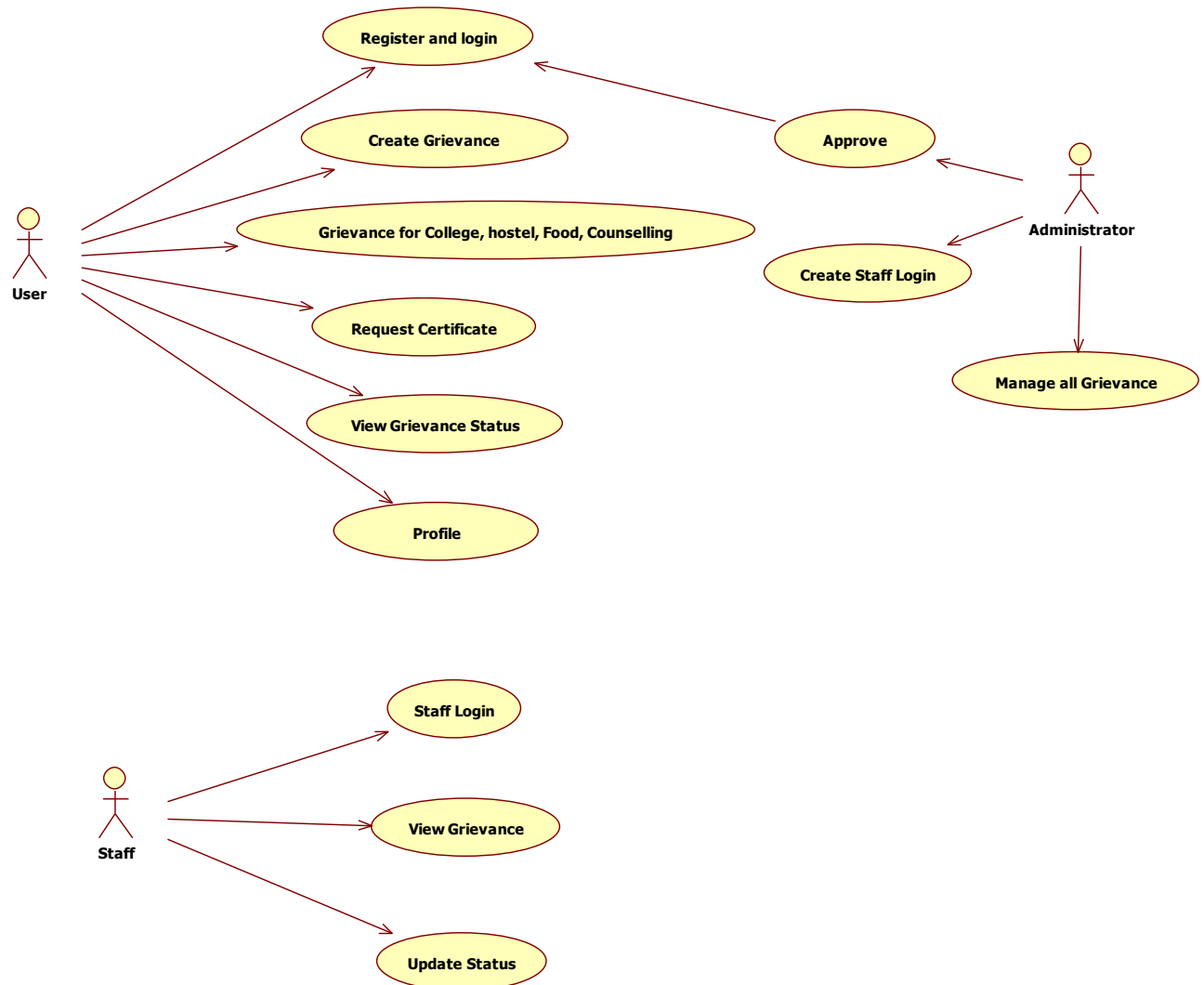
Fig 5: Use case Diagram for the system

Sequence Diagram:

Sequence diagram and collaboration diagram are called INTERACTION DIAGRAMS. An interaction diagram shows an interaction, consisting of set of objects and their relationship including the messages that may be dispatched them.
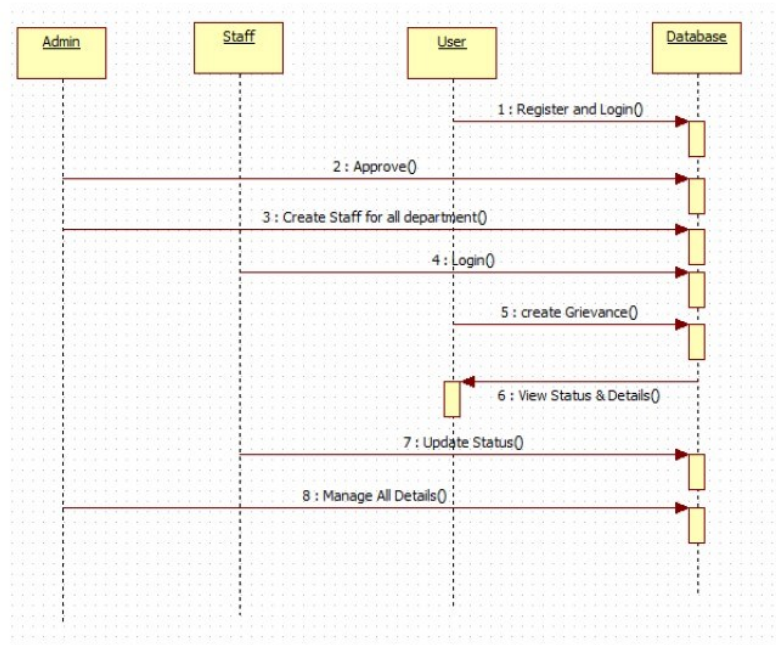

Fig 6: Sequence Diagram for the system

2.1.5 Entity Relationship Diagram
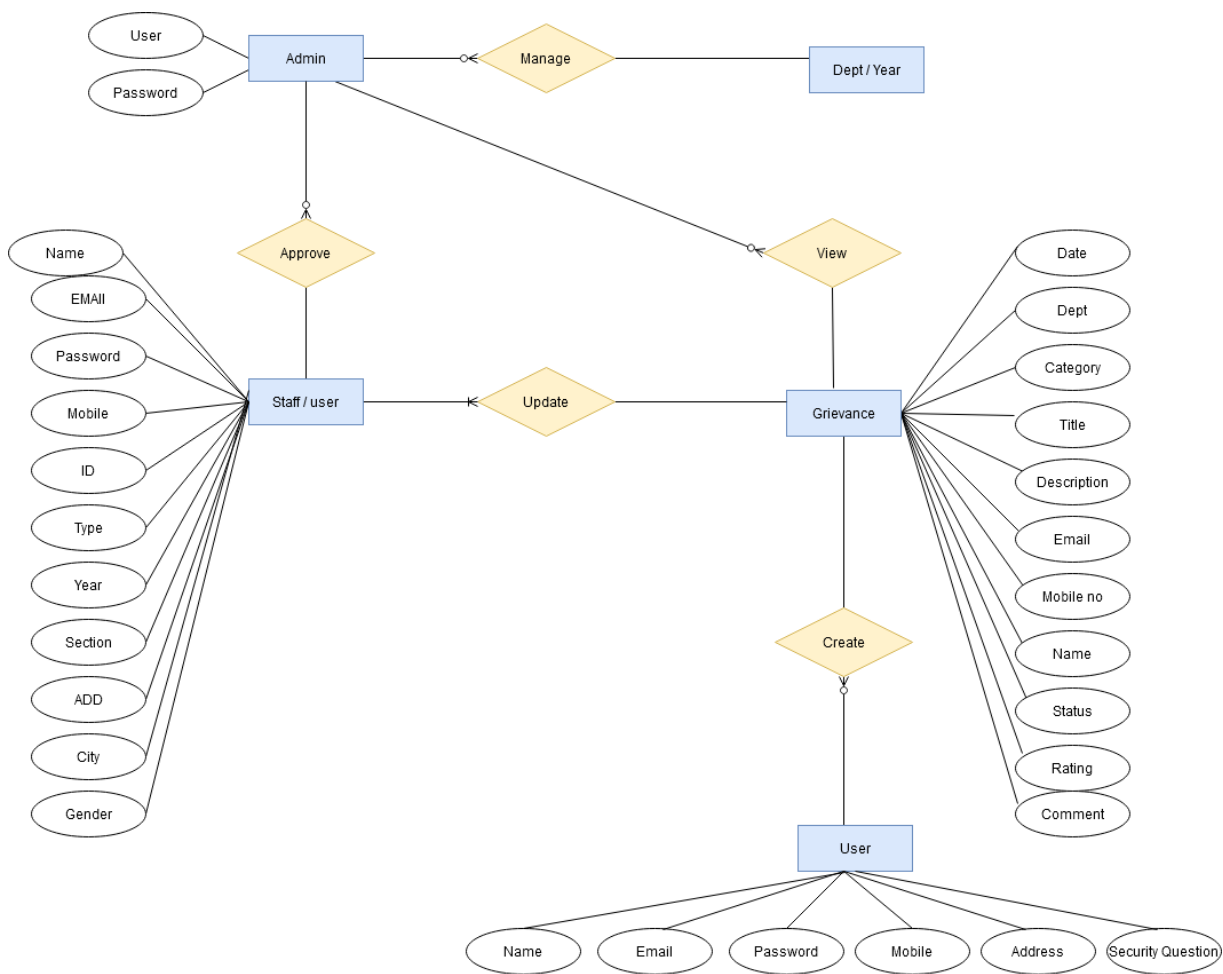
Fig 7: ER Diagram Interaction Between various entities

This ER diagram represents the basic structure of a college grievance system project. ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.

ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships.

2.2 System Specification

2.2.1 Hardware Specification

- ➢ PROCESSOR   :   AMD Ryzen 5 2nd Gen
- ➢ RAM   :   8 GB RAM
- ➢ OPERATING SYSTEMS   :   Windows 11

2.2.2 Software Specification

Front End:

1. HTML5

- Definition: HTML5 is the latest version of the HyperText Markup Language, the standard language for creating web pages.
- Features:
  - o New semantic elements like <header>, <footer>, <article>, and <section> for better structure.
  - o Multimedia elements such as <audio> and <video> for embedding media.
  - o Enhanced support for form controls and validation.
  - o APIs like Canvas, Web Storage, and Geolocation.

2. CSS3

- Definition: CSS3 is the latest evolution of Cascading Style Sheets, used for styling and layout of web pages.
- Features:
  - o Modules like Flexbox and Grid for advanced layout capabilities.
  - o Animation and transition properties for creating dynamic effects.
  - o Media queries for responsive design, adapting the layout to different screen sizes.
  - o Custom properties (variables) for reusable values across CSS.

3. Bootstrap

- Definition: Bootstrap is a popular open-source front-end framework for developing responsive and mobile-first websites.
- Features:
  - o Pre-designed components like buttons, forms, modals, and navigation bars.
  - o A responsive grid system for creating flexible layouts.
  - o Utilities for spacing, colors, typography, and more.
  - o JavaScript plugins for interactive components such as carousels and modals.

Back End:

1. PHP7.4

- Definition: PHP is a widely-used open-source server-side scripting language designed for web development.
- Features:
    - Improved performance and reduced memory usage in version 7.4.
    - New features like typed properties, arrow functions, and null coalescing assignment operator.
    - Enhanced error handling and exception handling.
    - Compatibility with numerous databases and web servers.

2. MySQL

- Definition: MySQL is an open-source relational database management system (RDBMS).
- Features:
    - Structured Query Language (SQL) for managing and querying databases.
    - Support for ACID (Atomicity, Consistency, Isolation, Durability) transactions.
    - Scalability and flexibility for managing large datasets.
    - Extensive support for security features like user roles and encryption.

IDE (Integrated Development Environment):

1. VS Code (Visual Studio Code)

- Definition: VS Code is a free, open-source code editor developed by Microsoft.
- Features:
    - Support for multiple programming languages through extensions.
    - Intellisense for smart code completion and suggestions.
    - Integrated terminal and Git support for version control.
    - Debugging tools for various programming languages and frameworks.
    - Customizable with themes and settings to enhance productivity.

Control End:

1.Angular

- Definition: Angular is a platform and framework for building single-page client applications using HTML, CSS, and TypeScript.
- Features:
    - Component-based architecture for building reusable UI components.
    - Two-way data binding for automatic synchronization between the model and view.
    - Dependency injection for managing service instances and improving testability.
    - Comprehensive routing system for navigation and deep linking.
    - Built-in support for forms, HTTP client, and observables with RxJS.

2.JavaScript

- Definition: JavaScript is a versatile, high-level programming language used for adding interactivity to web pages.
- Features:
    - Dynamic typing and first-class functions.
    - Support for event-driven, functional, and imperative programming styles.
    - APIs for manipulating the Document Object Model (DOM) and handling events.
    - Asynchronous programming with promises and async/await.
    - Extensive ecosystem of libraries and frameworks like React, Vue.js, and Angular.

Tools:

1.XAMPP

- Definition: XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends.
- Features:
    - Includes Apache HTTP Server, MariaDB (formerly MySQL), and interpreters for scripts written in PHP and Perl.
    - Simplifies the setup and configuration of a development environment.
    - Control panel for managing the start and stop of servers.
    - Suitable for developing and testing PHP-based applications locally.
    - Includes additional tools like phpMyAdmin for database management and FileZilla FTP server.

3. Software Design

3.1 Interface Design
Module Description

The system is proposed to have the following modules: This app enhanced level of categories for Tourism App.

System Features

In the life of the software development, problem analysis provides a base for design and development phase. The problem is analyzed so that sufficient matter is provided to design a new system. Large problems are sub-divided into smaller once to make them understandable and easy for finding solutions. Same in this project all the task are sub-divided and categorized.

System Modules:

Admin

- Login
- Register staff login for all grievance department
- Verify & Approve Student login
- View All Grievance Report

App Login

- Login
- View Complaints
- Update Status

Student

- Register
- Login
- Create College Queries
  - Manage Category – Projector, Garbage, AC , Fan , Water, Bed, Light, Other
- Create Hostel Complaints

   o Manage Category – Room Wise, Garbage, AC , Fan , Water, Bed, Light, Other

  • Create Counseling Grievance

  • Create Certificate Request

   o Manage Category – Bonatifate, Other

Module Description

<u>Admin Login</u>

Login Module:-

In login module the admin can login to the application with the master login details

Create Staff:

Admin will register staff grievance login for corresponding departments

Manage all details

Admin will manage all grievance details

<u>User</u>

Register Login Module:-

 In login module the user can register to the application with the details Login will be pending, till admin approve the account.

Create Grievance:

 User can login to the system and create grievance in following category food, hostel, college and certificate.

View Status of Grievance:

 User can login to the system and check status of grievance in following category food, hostel, college and certificate.

<u>Staff</u>

Login Module:-

 In login module the staff can login to the application with the details Login will be provided by admin

Update Status Grievance:

 Staff can login to the system and Update status of his/her department grievance in any of the category food, hostel, college and certificate

Fig 8:Admin log in interface

Fig 9:Admin interface

All Grievance Report

Departr ˅

Year ˅

Status ˅

Student ID

Search

Export

S.No	Year	Ref No	Department	Name	Phone	Category

Fig:10 All Complaint interface

Grievance Entry

2021-11-29

Grievance Department ˅

Complaint Category ˅

Grievance Title (Min 5 Letters)

Complaints Description

Fig 11:Student Complaint Entry interface
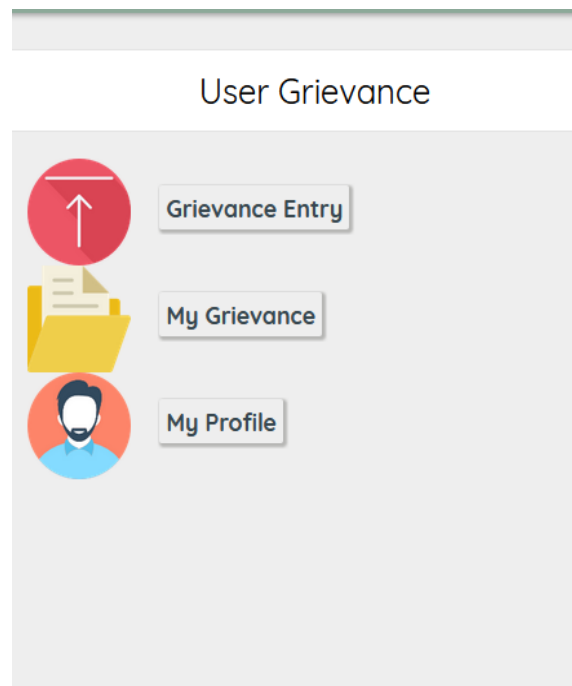
Fig 12:Student Account Interface

3.2 Dataset Descriptions

Table Diagram
Admin Login

Username	Password
Int	Varchar
100	40
Primary key	

User/Staff Register & Login

Id	Email	Name	Password	Mobile	Type/Dept	Year/Section	Adderss	City	Gender
Int	Varchar	Varchar	Varchar	Varchar	Varchar	Varchar	Varchar	Varchar	Varchar
100	50	30	30	10	4	4	100	20	10
Primary key									

Grievance

Id	Date	Email	Category	Department	Grievance Title & Details	Mobile	Name	Closed Date	Status
Int	Date	Varchar	Varchar	Varchar	Varchar	Varchar	Varchar	Date	Varchar
100		30	30	40	100	10	30		30
Primary key									

Year/Section/Dept/Category

ID	Year	Dept	Section	Category
Int	Varchar	Varchar	Varchar	Varchar
100	4	30	1	100
Primary key				

Database design is the organization of data according to a database model. With Data Name, Data Types and Data size

Here is the description:

Admin Login

Purpose: This table stores the login credentials for administrative users who manage the system.

Fields:

Username: A unique identifier for the admin user.

Password: The password for the admin user's account.

The Username field serves as the primary key, ensuring each admin has a unique login credential.

User/Staff Register & Login

Purpose: This table holds the registration details and login credentials for all users and staff members of the system. It captures essential information needed for authentication and user management.

Fields:

Id: A unique identifier for each user or staff member.

Email: The email address of the user or staff.

Name: The full name of the user or staff.

Password: The password for the user's account.

Mobile: The mobile number of the user.

Type/Dept: Indicates the type of user (e.g., student, staff) or their department affiliation.

Year/Section: For students, indicates their academic year and section.

Address: The residential address of the user.

City: The city where the user resides.

Gender: The gender of the user.

The Id field is the primary key, uniquely identifying each user or staff record.

Grievance

Purpose: This table is used to log and manage grievances submitted by users or staff. It captures detailed information about each grievance, its status, and relevant dates.

Fields:

Id: A unique identifier for each grievance record.

Date: The date when the grievance was submitted.

Email: The email address of the user who submitted the grievance.

Category: The category of the grievance (e.g., academic, administrative).

Department: The department related to the grievance.

Grievance Title & Details: The title and detailed description of the grievance.

Mobile: The mobile number of the user who submitted the grievance.

Name: The name of the user who submitted the grievance.

Closed Date: The date when the grievance was resolved or closed.

Status: The current status of the grievance (e.g., open, closed, pending).

The Id field acts as the primary key, uniquely identifying each grievance entry.

Year/Section/Dept/Category:

Purpose: This table defines various classifications and categories used across the system, such as academic years, departments, sections, and grievance categories.

Fields:

ID: A unique identifier for each classification record.

Year: Represents the academic year (e.g., first year, second year).

Dept: Represents the department (e.g., Computer Science, Mechanical Engineering).

Section: Represents the section within a year or department.

Category: Represents different categories (e.g., types of grievances).

The ID field is the primary key, ensuring each classification record is unique.

3.3 Coding Module (Modular Descriptions)

Create_index.html

```
<!DOCTYPE html>
<html ng-app="myapp">
<head>
<!-- Basic -->
<meta charset="utf-8">
<meta name="keywords" content="HTML5 Template" />
<meta name="description" >
<meta name="author" content="pixelgeeklab.com">
<!-- Mobile Metas -->
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<!-- Web Fonts  -->
<link href='fonts/quicksand.css' rel='stylesheet' type='text/css'>
<!-- Vendor CSS -->
<link rel="stylesheet" href="vendor/fontawesome/css/font-awesome.css">
<link rel="stylesheet" href="vendor/owlcarousel/owl.carousel.css" media="screen">
<link rel="stylesheet" href="vendor/owlcarousel/owl.theme.css" media="screen">
<link href="vendor/owl-carousel/owl.transitions.html" rel="stylesheet"
media="screen">
<link rel="stylesheet" href="vendor/flexslider/flexslider.css" media="screen">
<link rel="stylesheet" href="vendor/chosen/chosen.css" media="screen">
<link rel="stylesheet" href="vendor/magnific-popup/magnific-popup.css"
media="screen">
<link rel="stylesheet" href="css/colors/style.css" media="screen">
<!-- Theme CSS -->
<link rel="stylesheet" href="css/theme.css">
<link rel="stylesheet" href="css/theme-animate.css">
<!-- angular js -->
<script src="js/angular-1.3.js"></script>
<script src="js/angular_cookies.js"></script>
<!-- Style Switcher-->
```

```html
<link href="css/colors/default/style.html" rel="stylesheet" id="layoutstyle">

<!-- Head libs --

<script src="vendor/modernizr/modernizr.js"></script>

<!--[if IE]>

<link rel="stylesheet" href="css/ie.css">

<![endif]-->

<!--[if lte IE 8]>

<script src="vendor/respond/respond.js"></script>

<script src="vendor/excanvas/excanvas.js"></script>

<![endif]-->

<link rel="stylesheet" href="css/main.css">

<script src="js/modernizr-2.6.2.min.js"></script>

<link rel="stylesheet" href="css/tab.css">

<link rel="s

tylesheet" href="css/radio.css">
```

Page

return;

}

else if(data.success == 7) // College Head Login

{

alert("Login Successful");

$cookieStore.put("cook_user_mail",data.email);

$cookieStore.put("cook_user_mob",data.mobile);

$cookieStore.put("cook_user_name",data.name);

$cookieStore.put("cook_user_email",data.field_1);

$cookieStore.put("cook_user_type",data.field_2);

$cookieStore.put("cook_user_dept",data.field_3);

$cookieStore.put("cook_user_desg",data.field_4);

$cookieStore.put("cook_user_site",data.field_6);

$cookieStore.put("cook_user_area",data.field_7);

window.location = "hostel_home.html"; // Home Page

return;

}

else if(data.success == 8) // College Head Login

```
{
alert("Login Successful");
$cookieStore.put("cook_user_mail",data.email);
$cookieStore.put("cook_user_mob",data.mobile);
$cookieStore.put("cook_user_name",data.name);
$cookieStore.put("cook_user_email",data.field_1);
$cookieStore.put("cook_user_type",data.field_2);
$cookieStore.put("cook_user_dept",data.field_3);
$cookieStore.put("cook_user_desg",data.field_4);
$cookieStore.put("cook_user_site",data.field_6);
$cookieStore.put("cook_user_area",data.field_7);
window.location = "food_home.html"; // Home Page
return;
}
else if(data.success == 9) // Certificate Head Login
{
alert("Login Successful");
```

4. Technique Use in Testing

TYPES OF TESTS:

Unit testing

Unit testing involves the design of test cases that validate that the internal program logic is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. It is the testing of individual software units of the application .it is done after the completion of an individual unit before integration. This is a structural testing, that relies on knowledge of its construction and is invasive. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration. Unit tests ensure that each unique path of a business process performs accurately to the documented specifications and contains clearly defined inputs and expected results.

Integration testing

Integration tests are designed to test integrated software components to determine if they actually run as one program. Testing is event driven and is more concerned with the basic outcome of screens or fields. Integration tests demonstrate that although the components were individually satisfaction, as shown by successfully unit testing, the combination of components is correct and consistent. Integration testing is specifically aimed at   exposing the problems that arise from the combination of components.

Functional test

Functional tests provide systematic demonstrations that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals.

Functional testing is centered on the following items:

Valid Input   : identified classes of valid input must be accepted.

Invalid Input   : identified classes of invalid input must be rejected.

Functions   : identified functions must be exercised.

Output   : identified classes of application outputs must be exercised.

Systems/Procedures: interfacing systems or procedures must be invoked.

Organization and preparation of functional tests is focused on requirements, key functions, or special test cases. In addition, systematic coverage pertaining to identify Business process flows; data fields, predefined processes, and successive processes must be considered for testing. Before functional testing is complete, additional tests are identified and the effective value of current tests is determined.

System Test

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example of system testing is the configuration oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

White Box Testing

White Box Testing is a testing in which in which the software tester has knowledge of the inner workings, structure and language of the software, or at least its purpose. It is purpose. It is used to test areas that cannot be reached from a black box level.

Black Box Testing

Black Box Testing is testing the software without any knowledge of the inner workings, structure or language of the module being tested. Black box tests, as most other kinds of tests, must be written from a definitive source document, such as specification or requirements document, such as specification or requirements document. It is a testing in which the software under test is treated, as a black box .you cannot "see" into it. The test provides inputs and responds to outputs without considering how the software works.

4.2.1 Unit Testing:

Unit testing is usually conducted as part of a combined code and unit test phase of the software lifecycle, although it is not uncommon for coding and unit testing to be conducted as two distinct phases.

Test strategy and approach

Field testing will be performed manually and functional tests will be written in detail.

Test objectives
- All field entries must work properly.
- Pages must be activated from the identified link.
- The entry screen, messages and responses must not be delayed.

Features to be tested
- Verify that the entries are of the correct format
- No duplicate entries should be allowed
- All links should take the user to the correct page

4.2.2 Integration Testing

Software integration testing is the incremental integration testing of two or more integrated software components on a single platform to produce failures caused by interface defects.

The task of the integration test is to check that components or software applications, e.g. components in a software system or – one step up – software applications at the company level – interact without error.

Test Results: All the test cases mentioned above passed successfully. No defects encountered.

4.2.3 Acceptance Testing

User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

4.1 Test Cases

S.NO	SCENARIO	INPUT	EXPECTED OUTPUT	ACTUAL OUTPUT
1	Admin login Details	Admin denter login details	Login successfully or if incorrect login details "Login successfully"	Login successfully or Login unsuccessfully
2	View All Grievance	Admin Can search all Grievance	View all Grievance	View all Grievance
3	Update Complaint Status	Admin update Complaint Status	Update status	Updated successfully or unsuccessfully
4	Create Employee	Employee created by all details like name,addres s, phone etc	All the details Create successfully	Created successfully or created unsuccessfully
5	Employee Login	Email and Password	If correct directed to home page otherwise show "Login Successfully"	Login successfully or Login unsuccessfully

6	Create Company Grievance	Company Grievance created by all details	All the details Create successfully	Created successfully or created unsuccessfully
7	Manage Category	User add the Category Details	all the Category Details "updated successfully"	updated successfully or unsuccessfully
8	Manage Employee	Admin add the Employee Details	all the Employee Details "updated successfully"	updated successfully or unsuccessfully
9	Manage Department	Admin add the Department details	all the Department details "updated successfully"	updated successfully or unsuccessfully
10	My Complaint	User check and view all Complaint status details	user view Complaint details	View My Complaint details
10	Manage Complaint Category	Admin add the Complaint Category	all the Complaint Category details "updated successfully"	updated successfully or unsuccessfully
11	Manage Complaint SubCategory	Admin add the Complaint SubCategory	all the Complaint SubCategory details "updated successfully"	updated successfully or unsuccessfully
12	Update Complaint Status	User update Complaint Status	Update status	Updated successfully or unsuccessfully
13	View All Grievance Report	User will check the All Grievance Report	Admin view All Grievance Report	View All Grievance Report

14	Update Feedback	User update Feedback	Update Feedback	Updated successfully or unsuccessfully

Test Results: All the test cases mentioned above passed successfully. No defects encountered.

5. SDG Goal Alignment for CampusConnect

The CampusConnect aligns with the United Nations Sustainable Development Goal (SDG) 15: Life on Land. SDG 15 aims to "protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss." Here's how the College Management System contributes to SDG 15:

Waste Management and Clean Environment:

The system enables students to submit complaints about waste within the campus, tagging the waste management department. This functionality supports the sustainable use of terrestrial ecosystems by promoting a clean and healthy environment. It aligns with SDG 15's objective of halting land degradation and ensuring the responsible management of natural resources.

Animal and Bird Life Protection:

Specifically mentioning the well-being of ducks on campus, the system plays a role in protecting animal and bird life. Ducks, being part of the campus ecosystem, benefit from a clean environment, and the system's complaint tagging mechanism ensures timely action to maintain a habitat conducive to their well-being.

Conclusion of the Project Work

In conclusion, the implementation of a web app named, Campus Connect, for campus grievance management has the potential to greatly improve the efficiency and effectiveness of handling student complaints. By providing a user-friendly platform for submitting grievances, tracking their progress, and facilitating communication between students and administrators, the web app can streamline the entire process. Additionally, the incorporation of data analytics and reporting features can help identify patterns and trends in grievances, allowing for proactive measures to address underlying issues. Overall, the adoption of a campus grievance management web app holds immense promise in promoting transparency, accountability, and student satisfaction within the university community. So it makes the proper academic environment through the development of Online **Campus Connect**.

REFERENCES

[1]   Arunmonappa Saiyadain, S. Mirza, Personnel management, New Delhi:TATA Mcgraw - HILL, 2011.

[2]   K. Aswathappa, "Human resource and personnel management", TATA Mcgraw - HILL New Delhi, 1990.

[3]   "Government releases vision document for textiles industry", Business Line New Delhi, December 2010.

[4]   A Choobineh, M Lahmi, H Shahnavaz, RK Jazani, M Hosseini, "Musculoskeletal symptoms as related to ergonomic factors in Iranian hand-woven carpet industry and general guidelines for workstation design", International Journal of Occupational Safety and Ergonomics, vol. 10, no. 2, pp. 157-168, 2004.

[5]   J. Baffes, "Cotton: market setting trade policies and issues", World Bank Policy Research Paper, pp. 3218, 2004.

[6]   D. Meyer, "The Political Effects of Grievance Handling by Stewards in a Local Union", Journal of Labor Research, vol. 15, no. 1, pp. 33-52, 1994.

[7]   Singh Bhangoo Kesar, Dynamics of Industrial Relations, New Delhi:Deep & Deep Publications, 1995.

[8]   Ch. Shobha Rani et al., International Journal of Advanced Research in Computer Science, vol. 8, no. 5, pp. 853-856, May-June 2017.

[9]   IJSTE-International Journal of Science Technology & Engineering, vol. 2, no. 09, March 2016.

[10]   Bigtable: A Distributed Storage System for Structured Data.

[11]   grievance Redress Mechanism of Government.

[12]   Consumer Affairs App on Playstore department of consumer affair, 2017.

[13]   Jansunwai App on Playstore lok shikayat vibhag chief minister office uttar pradesh.

[14]   EPF Grievance App on Playstore copyright, 2016.

[15]   T. Agotnes, W. V. Der Hoek, J. A. Rodríguez-Aguilar, C. Sierra, M. Wooldridge, On the logic of normative systems, AAAI Press, pp. 1175-1180, 2007.

[16]   A. Arkitis, M. Sergot, I. Pitt, "Specifying norm-governed computational societies", ACM Transactions on Computational Logic, vol. V, pp. 1-41, April 2007.

[17]   T. Schultz, G Kaufmann-Kohler, D. Langer, V. Bonnet, Online Dispute Resolution: The State of the Art and the Issues.

[18]   W. Slate, "Online dispute resolution: Click here to settle your dispute", Dispute Resolution Journal, vol. 8, January 2002.

[19]   V. Botti, A. Garrido, A. Giret, P. Noriega, "Managing water demand as a regulated open MAS", The MALLOW'09 COIN Workshop, vol. 494, pp. 1-10, 2009.

[20]   G. Eason, Abdelhamid Elgzi, C. Edward Chow, Amer Aljaedi, Naif Alamri, "Cyber anonymity based on software-defined networking and Onion Routing (SOR)", IEEE Conference on Dependable and Secure Computing, 2017.

[21]   Kazuya Sakai, Min-Te Sun, Wei-Shinn Ku, Jie Wu, Faisal S. Alanazi, "Performance and Security Analyses of Onion-Based Anonymous Routingfor Delay Tolerant Networks", IEEE Transactions on Cloud Computing.

[22]   Kazuya Sakai, Min-Te Sun, Wei-Shinn Ku, Jie Wu, Faisal S. Alanazi, "An Analysis of Onion-Based Anonymous Routing for Delay Tolerant Networks", IEEE 36th International Conference on Distributed Computing Systems (ICDCS), 2016.

[23]   Taro Ishitaki, Ryoichiro Obukata, Tetsuya Oda, Leonard Barolli, "Application of Deep Recurrent Neural Networks for Prediction of User Behavior in Tor Networks", 31st International Conference on Advanced Information Networking and Applications Workshops (WAINA), 2017.

[24]   D. M. Blei, A. Y. Ng, M. I. Jordan, "Latent dirichlet allocation", Journal of machine Learning research, vol. 3, pp. 993-1022, 2003.

[25]   J. Chuang, C. D. Manning, J. Heer, "Termite: Visualization techniques for assessing textual topic models" in Proceedings of the international working conference on advanced visual interfaces, ACM, pp. 74-77, 2012.

[26]   J. Chuang, S. Gupta, C. Manning, J. Heer, "Topic model diagnostics: Assessing domain relevance via topical alignment", International Conference on Machine Learning, pp. 612-620, 2013.

[27]   C. Sievert, K. Shirley, "Ldavis: A method for visualizing and interpreting topics", Proceedings of the workshop on interactive language learning visualization and interfaces, pp. 63-70, 2014.

[28]   D. Seo et al., "Two-level model of customer retention in the US mobile telecommunications service market", Telecommunications Policy, vol. 32, pp. 182-196.

[29]   C. Park, "Complaints of Asian shoppers toward Global Retailer: A content analysis of e-complaining to Carrefour Korea", Asia Pacific Journal of Marketing and Logistics, vol. 17, pp. 25-39, 2005.

[30]   C. S, "Westminster City Council: improving quality through complaint management", Managing Service Quality, vol. 6, pp. 20-22, 1996.