Sinhgad Institutes

Sinhgad Technical Education Society's

Sinhgad Academy of Engineering, Kondhwa (Bk.), Pune

Employability Skills Laboratory
Mini Project

HOSTEL MANAGEMENT

National Board Of Accredation

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Year 2015-16.

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CERTIFICATE

This is to certify that the project report entitled "HOSTEL MANAGEMENT"

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is a bonafide work carried out by them under the supervision of Prof. Poonam Pate and it is submitted towards the partial fulfilment of the requirement of Savitribai Phule Pune University, for completing the requirements of Computer Engineering.

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Prof. Poonam Pate   Prof. B. B. Gite

Project Guide   HOD, Computer Engineering

Place: Pune

Date:

ACKNOWLEDGEMENT

I would like to take this opportunity to thank all the people who were a part of this project in numerous ways, people who gave un-ending support right from the initial stage. In particular, I wish to thank **Prof. Poonam Pate** my internal project guide who gave her co-operation timely and precious guidance without which this project would not have been a success. I thank her for reviewing the entire project with painstaking efforts. And more of her, uncanny ability to spot the mistakes.

I would like to thank our H.O.D **Prof. B.B.Gite** for his continuous encouragement, support and guidance at each and every stage of development of this project.

And last but not the least I would like to thank all my friends who were associated with me and helped me in preparing my project. The project named **NATIONAL BOARD OF ACCREDATION** would not have been possible without the extensive support of people who were directly or indirectly involved in its successful execution.

<u>Group Members</u>

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1. ABSTRACT

"Hostel Management" is an idea to computerize the various functionality of management in hostel. Using this software application we can help the users to view their information and the management can organize students' information in database. The main objective of this project was to avoid lots of paper work to maintain record of every individual.

This software deals with overall functionality of hostel administration including students' records. It also enables the functions to login, logout and to insert, update, display and delete the records. It also generates the respective reports.

The main challenge was to make the system work without any errors so that all the reports were generated accurately

2. INTRODUCTION

Hostel management system which is prevalent these days is done manually on paper. This system is inefficient as it relies on manual work which can induce errors.

In the currently used system there is a probability of data loss as the records can be misplaced or lost. Also the records can be manipulated by anyone. This system is also slow and the cost is also more as it includes paper work, labour and storage space to store the records.

"Hostel Management" is an automation system that replaces the manual working mode of a hostel by a more convenient, user-friendly, efficient and user-oriented working environment.

It resolves the problems such as, automation of the administration of the hostel and automation of report generation at administration and user level.

The system is divided into two Modules:

1.0   Administration Module.

1.1   User Module.

Administration Module:

This Module provides forms for login(authentication), and validates the data filled in forms provided for girls' hostel and boys' hostel. And enables operations to insert, update, display and delete the records.

User Module:

This Module allows to view a particular record stored in the database of the hostel.

3. SYSTEM STUDY

3.1 Proposed System

The system provides a user friendly interface which saves time and cost of paper work.

The main motto of this system is to computerize the whole record keeping the protocol of the hostel with minimum human efforts and in least possible time and most importantly without errors.

The system also provides accurate, quick and meaningful information based on the transaction processed. It also provides quick and accurate reports relating to the organization.

The System makes sure that the transaction records are complete, accurate and readily available. It provides Standard for Data sharing and analysis keeping in mind the standards for privileges and data security.

There is Login Form for authenticating Users for gaining authorised access to the system and restrict invalid access to the system by unauthorised users.

3.2 Scope of System

The System helps to Access real time information. It has an effective use of well laid-out Graphical User Interface.

The System provides Validation and Error Handling. Students (Users) can also do online enquiry. The system provides automatic generation and validation of Reports according the User. It also has powerful transaction and routine data processing capabilities. The system enables a strong controlled environment.

Thoughtful and Timely changes are made to keep pace with advances in both Technology and Business. An effective governance and administrative structure is created and maintained to support the management with network or improved functionality, fixes and service releases.

3.3 Working of System
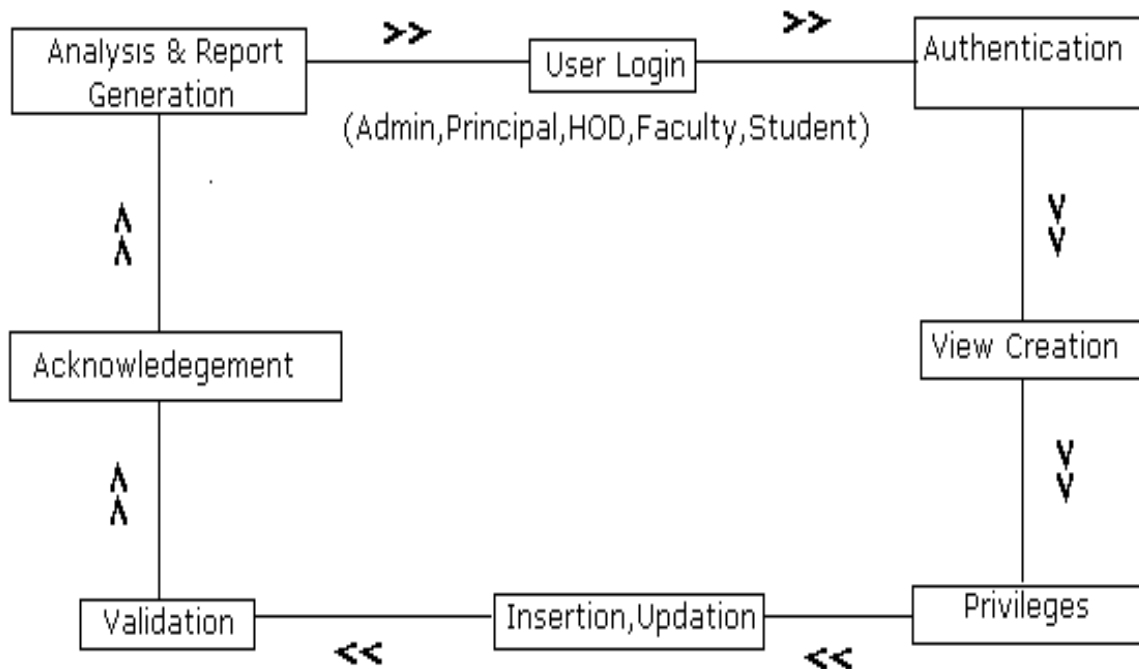
FIG. 1: WORKING OF SYSTEM

3.4 Feasibility Technique

The main objective of feasibility study is to test Technical, Operational and Economical extensibility for developing computerised system. This is done by investigating and generating idea about a new system.

Feasibility study helps to obtain an overview of the problem and get rough assessment of whether any feasible solution exists. There are three types of feasibility studies in order to understand whether the proposed system would be feasible if implemented.

They are as follows:

- Technical Feasibility

- Economical Feasibility

- Operational Feasibility

1. Technical Feasibility

Technical Feasibility will need to consider the possibilities of using machines available and the nature of hardware being used in the system. It's always better to select the best package that will be flexible with other programmers or outside developers and also possible for the user.

We are using JSP scripting language and Netbeans-8.0.2-javaee IDE. To develop this application this is the feasible technology due to its strong desktop development architecture and its simplicity of use.

2. Operational Feasibility

The system is user friendly and it is accessible to user, and much easier to operate because the interface of the system and screen display is quite clear. The system must operate in proper cyclic frequency of transactions. There are navigation bars by which the users and administrator both can lead to system operations.

3. Economical Feasibility

Proposed or developed system is been justified by the cost and analysis benefits to ensure that efforts are concentrated on the project that will give best returns at the earliest opportunity. The cost of operation of the proposed system is minimal, since there is no need of installing hardware, training etc as computers are already installed and users are well trained.

3.5 Hardware & Software Requirements

HARDWARE REQUIREMENTS:

Processor-: 1.2 GHz

Hard Disk-: 20GB

RAM-: 512 MB (Minimum)

Mouse-: Any

Keyboard-: Any

Printer-: Any

Monitor-: Any CRT or LCD

SOFTWARE REQUIREMENTS:

Operating System-: Windows 2000, WindowsXP, Windows Vista, 7, 8, 10, Ubuntu, Fedora, etc

Front End -: HTML, JSP, CSS

Back End -: MongoDB

4. STRUCTURED ANALYSIS

4.1 Content Level Diagram
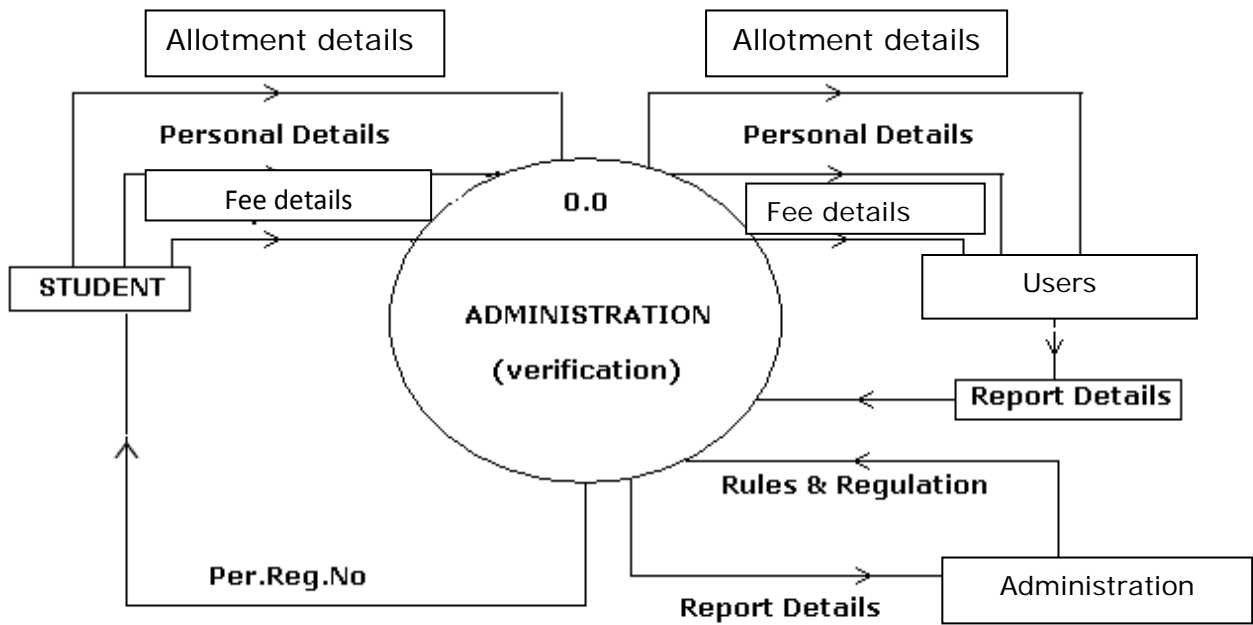
FIG. 2: CONTENT LEVEL DIAGRAM

4.2 Data Flow Diagram
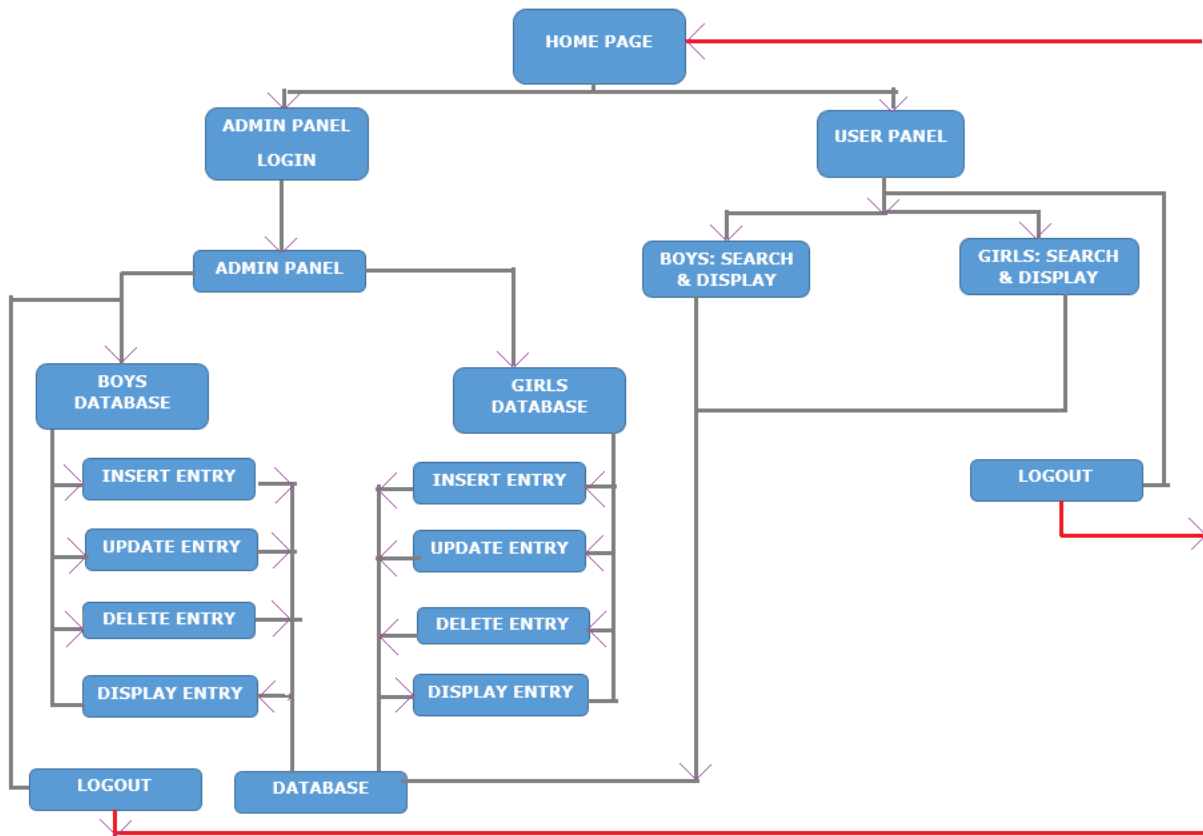
FIG. 3: DATA FLOW DIAGRAM

5. SYSTEM DESIGN

5.1 Schema Design.

Personal details

SR.NO	Key	Value	Width
1.	Student id	_id	20
2.	Name	_name	20
3.	Date Of Birth	DD/MM/YY	20
4.	Address	address	20
5.	Contact no. self	_self	20
6.	Parent Contact no	_parent	20
7.	Blood Group	_bg	20

TABLE 1: PERSONAL DETAILS

Fee details

SR.NO	Key	Value	Width
1.	Fee paid	_paid	20
2.	Fee due	_due	20
3.	Date Of payment	DD/MM/YY	20

TABLE 2: FEE DETAILS

Allotment details

SR.NO	Key	Value	Width
1.	Wing no.	_wing	20
2.	Floor no.	_floor	20
3.	Room no.	_room	20
4.	Bed no.	_bed	20

TABLE 3: ALLOTMENT DETAILS

Violation details

SR.NO	Key	Value	Width
1.	Damage	_damage	20
2.	Penalty	_penalty	20

TABLE 4: VIOLATION DETAILS

5.2   Input Screen

Home Form:
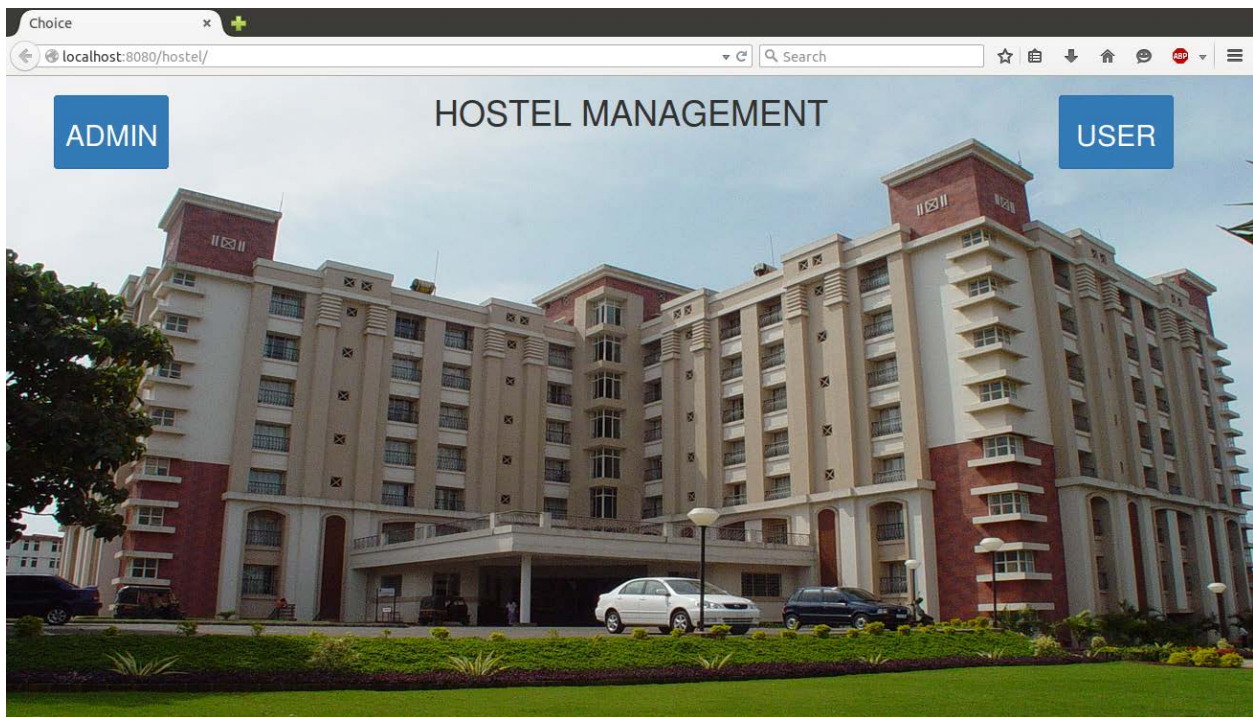
FIG. 4: HOME FORM

Login Form:

FIG. 5: LOGIN FORM

Admin (choice) Panel Form:

FIG. 6: ADMIN (CHOICE) PANEL FORM

User Pannel Form:

FIG. 7: USER PANEL FORM

Hostel Database option Form:

FIG. 8: HOSTEL DATABASE OPTION FORM

New Entry Form:

FIG. 9: NEW ENTRY FORM

Search Entry for deletion Form:
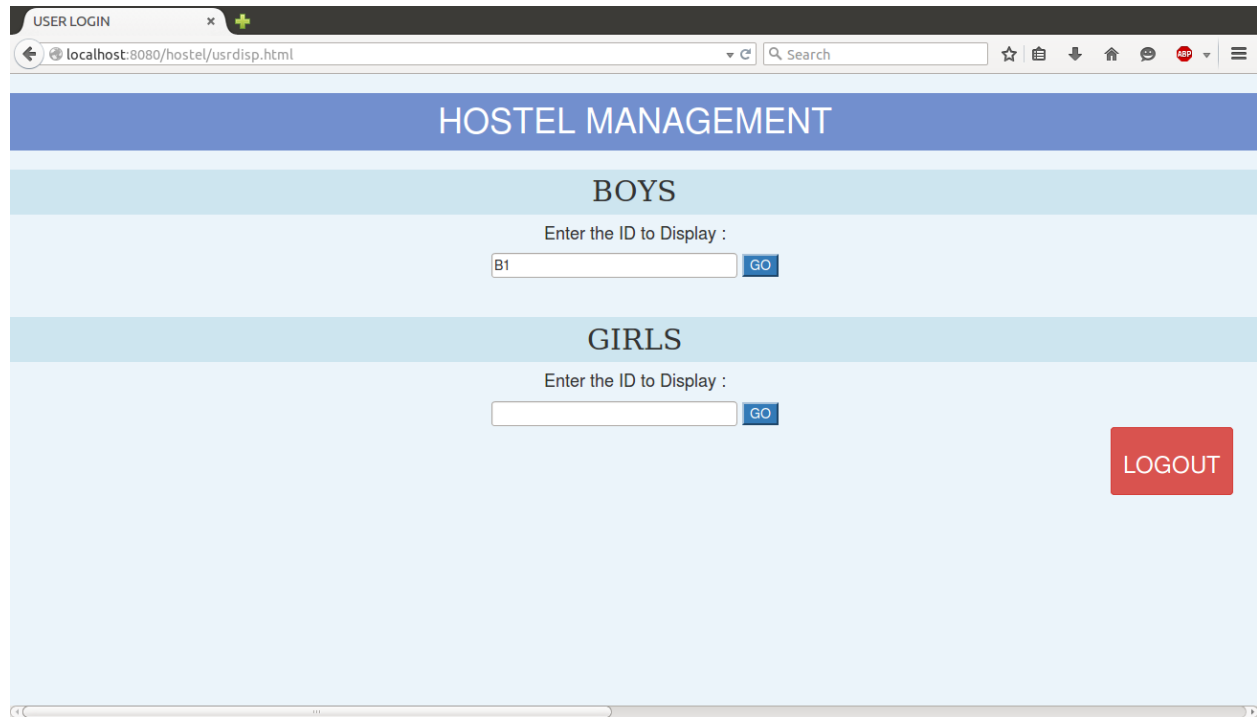
FIG. 10: SEARCH ENTRY FOR DELETION

User Search Form:

FIG. 11: USER SEARCH FORM

Update User Details:

FIG.12: USER UPDATE DETAILS

Updation Form:

FIG. 13: UPDATION FORM

6.3   Reports
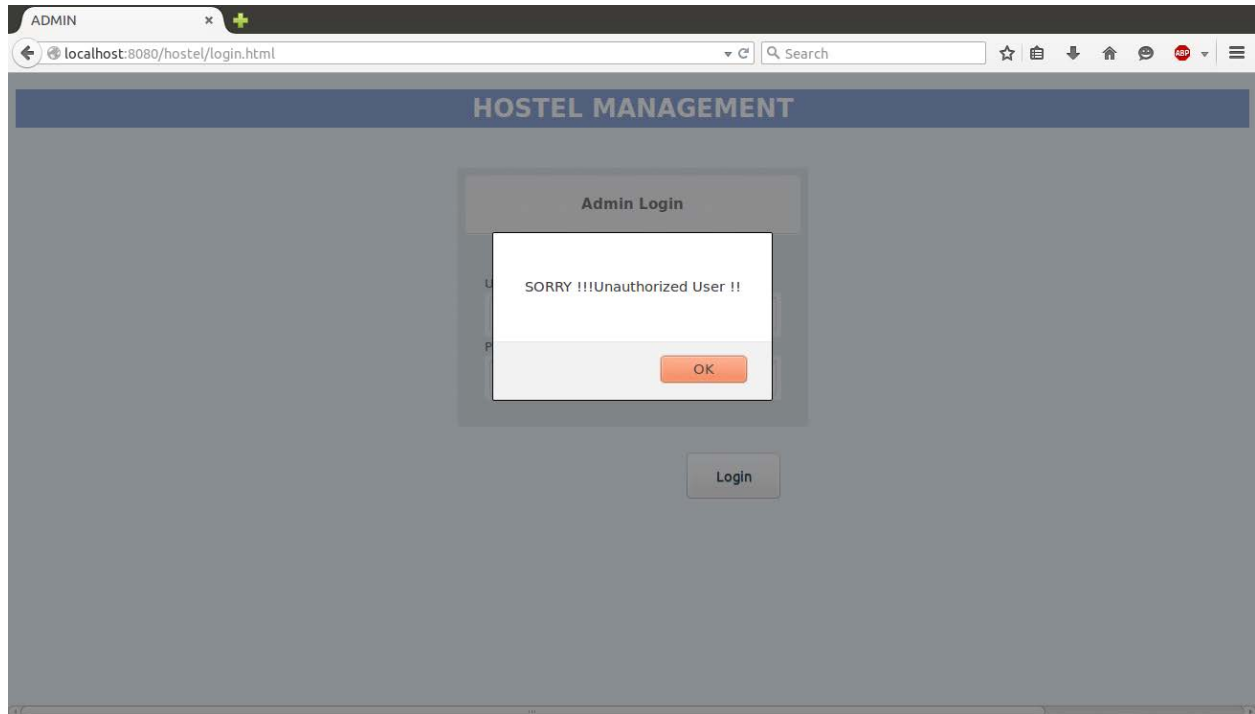
Authentication Form:

FIG. 14: AUTHENTICATION FORM
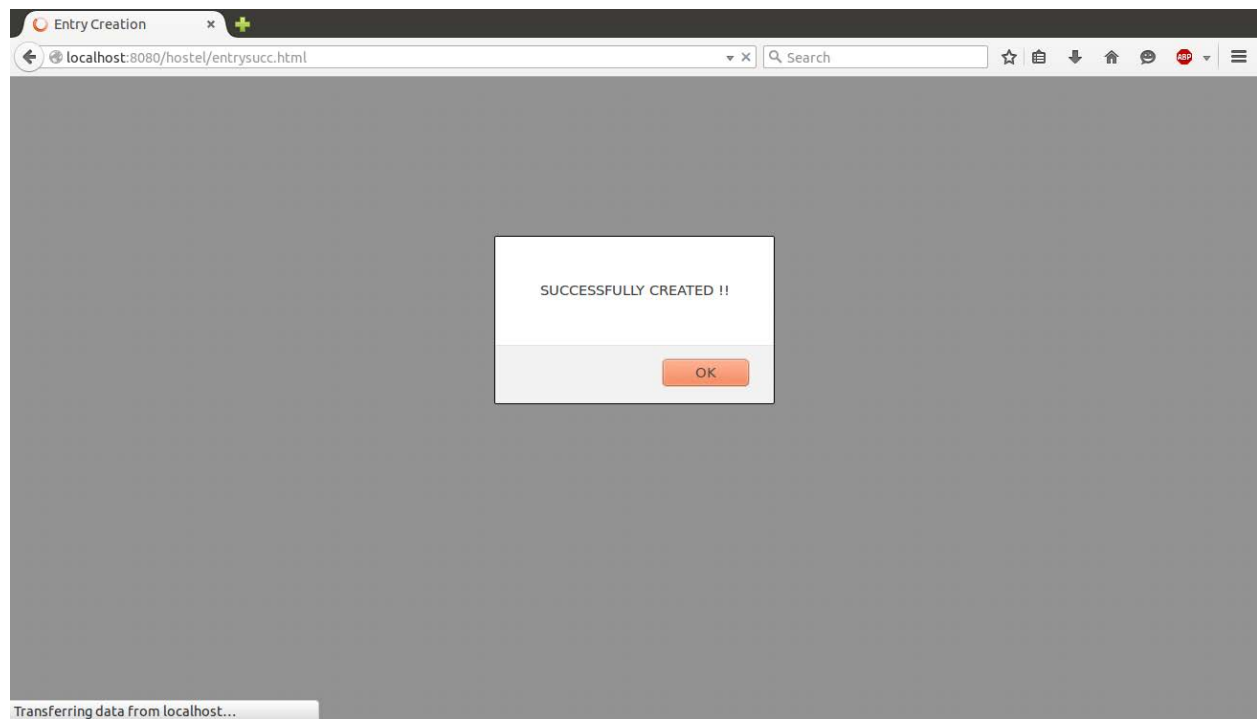
Entry Insertion Successful Form:

FIG.15: ENTRY INSERTION SUCCESSFUL

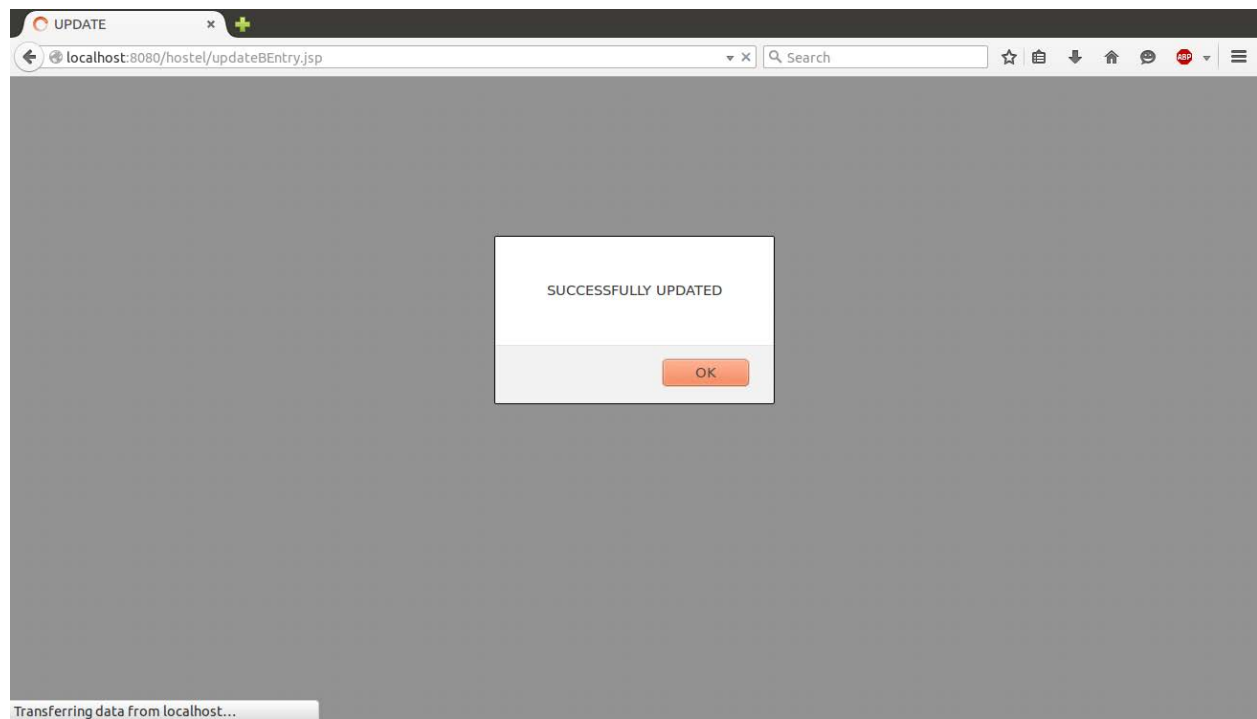## Successful Updation Form:

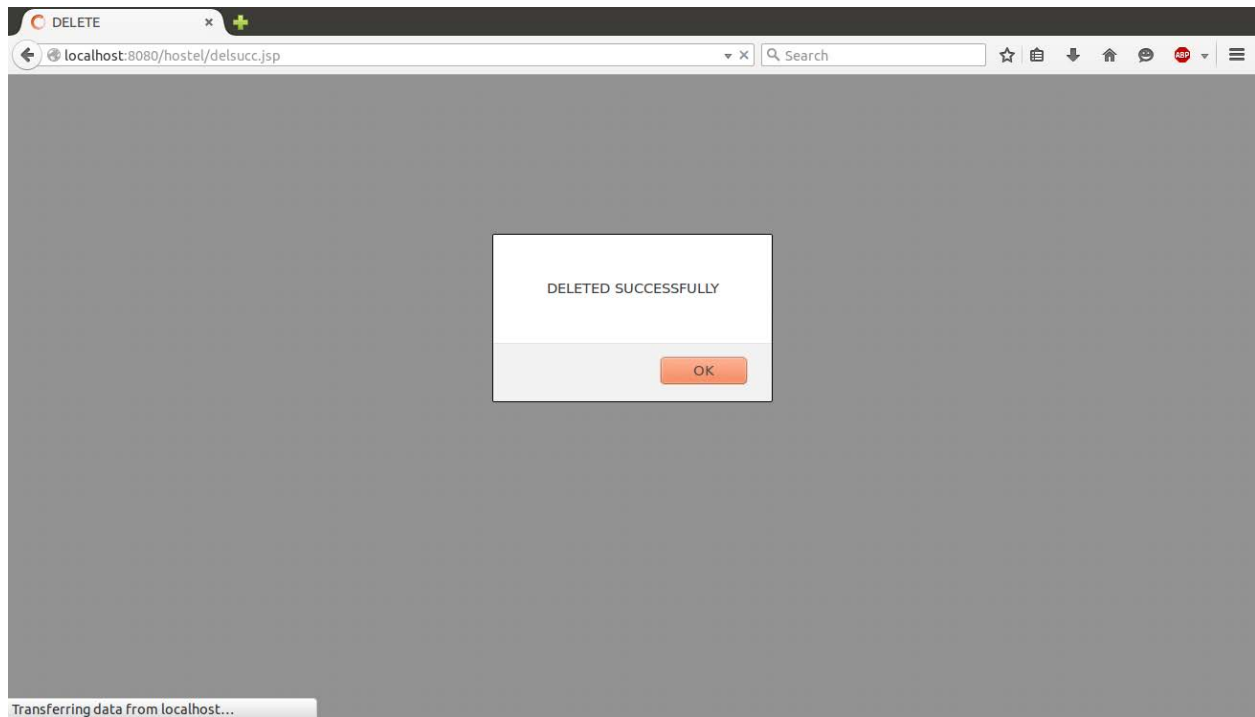**FIG.16: SUCCESSFUL UPDATION FORM**

Successful Deletion Form:

FIG.17: SUCCESSFUL DELETION FORM

User Detail Form:

FIG. 18: USER DETAIL FORM

Display All Record Form:

FIG.19: DISPLAY ALL RECORD FORM

6. TESTING

Testing is one of the important steps to be performed to ensure successful implementation of the system. The basic idea of carrying out testing is to ensure no error exits in the functionality and operability of the program. Therefore the most useful and practical approach is with intension of finding errors. This is the phase where the system is intentionally made to fail so as to make the system full proof and error free up to the limit possible.

Initially Test data is prepared to check the software. During this phase the system is used experimentally to ensure that the software does not fail. Special test data are inputs for processing and the result is examined. It is very essential for increasing its effectiveness and accuracy.

The testing of system is necessary to ensure the following issues:

- Completeness

- Correctness

- Reliability

In   general the system was thoroughly checked at each level, right from the beginning. System was checked at different levels.

Testing parameters	Conditions of failure
Submit button	If the values that are entered are null then the submit button should not operate.
Search button	It should not work if no value is entered.

Update button	It should not work if no value is entered.
Insert button	If any of the field is left blank then no entry should be accepted.

TABLE 5: TESTING

- Testing of data entry procedures is done.

- Testing of data validations is done.

- Entering data via different screens (forms) is done.

- Testing for data insertion and updation is done.

- Record saving procedure is done.

- Error routines were checked.

7. CONCLUSION

This system provides reports to each level of hierarchy. The system carries its work from the point of view of administrator as well as the point of other users in the system.

The valid inputs are required which can yield the best results. Unauthorised user will not be able to access the system.

The system was found feasible and operational. The User found the system to be interesting and very easy to handle, apart from the fact that it is accurate and efficient. The system maintained the required information with all the validations and thus implements data consistently throughout. All the tedious reports were generated automatically, hence was tedious work of removing the necessary data for report generation was done, saving time, energy and resources.

Thus the system gives its result properly.

8. Future Scope

The main advantage of this system is – It reduces manpower for the management of a huge data.

It can further be upgraded to –

1. Link it with the particular institution's servers so that it can also be accessed from the institution thereby saving time taken to reach the Hostel.
2. The whole database can be migrated to cloud so that then it can be accessed from anywhere around the globe.
3. Hence, it is not mandatory for the administrator to reach over that particular location.
4. It thus will help the authority to get summarized report on the go.

9. References

The details / sites / books we referred to are as mentioned below:

1. Book – MongoDB by O'Reilly
2. www.google.co.in
3. www.bootstrap.com
4. www.flatui.org
5. www.stackoverflow.org