

E-Helpdesk: Online Helpdesk for College Campus

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Abstract

The current facilities/services of a campus such as requesting for documents, certificates, permissions etc. are fulfilled manually which takes a lot of time. The aim of our project is to develop an E-Help Desk (EHD) for the facilities available in the college campus. This is a web application that can be accessed throughout the campus. Our system can be used to automate the work flow of service requests for the various facilities available in the college campus. This is an integrated system that covers different kinds of sections/departments such as student section, accounts department, exam section, labs, departmental offices etc. Registered users i.e. students will log in to request for service of any of the supported facilities. The different requests will be sent to the concerned facility heads, who are also valid users of the system, who will fulfill the requests. Then the registered users will be notified through email notification about the status of their request.

Keywords: Attribute aware data aggregation, Dynamic routing protocol, Packet driven timing control algorithm, wireless sensor network

I. INTRODUCTION

E-helpdesk is a web application aimed at providing different services of the college to the students for which they normally have to wait too long. This application can be accessed throughout the campus [1]. The present system which is totally manual consumes a lot of time for a request to be satisfied. E-helpdesk will allow students to easily request for different services via this online portal. The corresponding facility heads will then take necessary actions and try to fulfill the requests.

E-helpdesk supports three types of users:

A. Students:

These are the users who will request for the different facilities of the campus.

B. Facility Heads:

These are the users who will receive the requests and try to resolve them.

C. Administrator:

The Administrator will be able to add more students and facility heads to the system.

II. NEED OF E-HELPDESK

At present the current system works manually. It provides the information in written or orally within the organization/campus. Individual has to spare his time and energy in order to obtain even the basic information regarding the organization/campus. Apart from this there can be a long and tedious procedure in order to have a solution regarding any particular query.

III. FEASIBILITY STUDY

The main aim of the feasibility study activity is to determine whether it would be financially and technically feasible to develop a project [2]. The feasibility study activity involves the analysis of the problem and collection of all relevant information relating to the product such as the different data items which would be input to the system, the processing required to be carried out on these data, the output required to be produced by the system as well as the various constraints on the behavior of the system. During feasibility study most of the high-level architectural design decisions are made.

The collected data are analyzed to arrive at the following:

- An abstracted problem definition, which considers only the important requirements and ignores the rest.
- Formulation of different solutions strategies.
- Analysis of alternative solutions strategies to compare their benefits and shortcomings. This analysis usually requires making approximate estimates of the resources required, cost of development and development time for each of the options.

IV. REQUIREMENTS

Requirements Specification adds further information to the requirements definition. The interface should use terms and concepts, which are from the experience of the people who will make most of the system [3]. The system must provide easy and fast access without consuming cost. The only requirement is to automate the whole system as a good source of providing the reliable information to that the user so that he can get the maximum benefit of the services provided by the campus.

For development of the application we need a system with good configuration. A system with fast processing speed and enough memory is required.

As per the software part we would require XAMPP server for cross-platform web server solution stack package, consisting mainly of the Apache HTTP Server [7], MySQL database, and interpreters for scripts written in the PHP.

For programming purpose we would be using HTML, CSS, JavaScript and PHP.

V. FUNCTIONS OF THE SYSTEM

The different users of the system viz. students, administrator and facility heads carry out different activities. Use case diagrams provide an insight into specifying the roles the users perform.

Use case diagrams are usually referred to as behavior diagrams used to describe a set of actions that some system or systems should or can perform in collaboration with one or more external users of the system [4]. Each use case should provide some observable and valuable result to the actors or other stakeholders of the system.

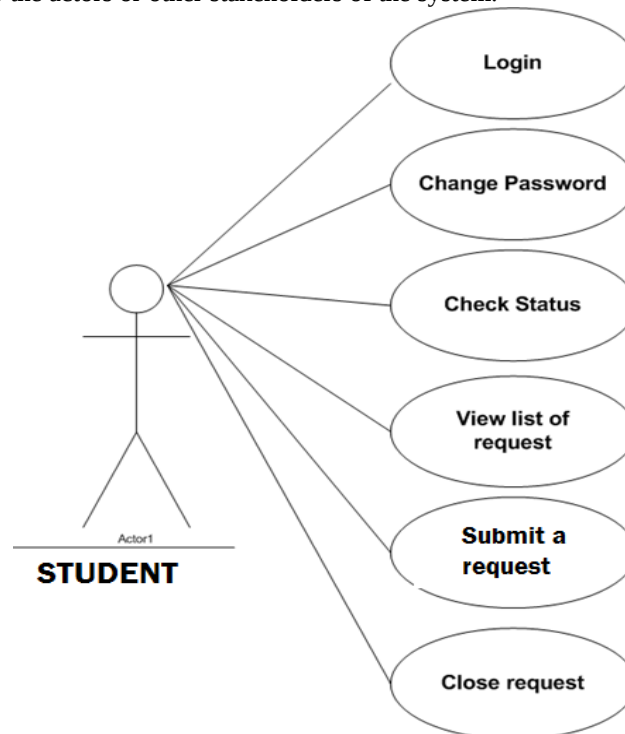


Fig. 1: Use-Case diagram of Student

Fig.1 specifies the activities that a student can perform, of which viewing a list of requests he can make and submitting a request are the major one. Moreover, he has options to change password and check status of his request.

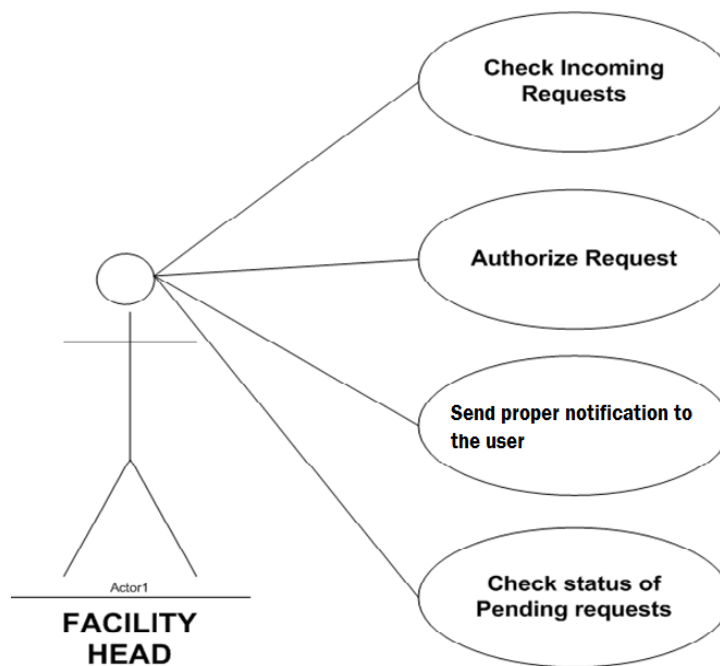


Fig. 2: Use-Case diagram of Facility Head

Fig.2 specifies the tasks that a facility head has to perform such as checking the requests from the students and authorizing them i.e. taking necessary actions on them. Furthermore, he has the option to send a proper notification via email to the students.

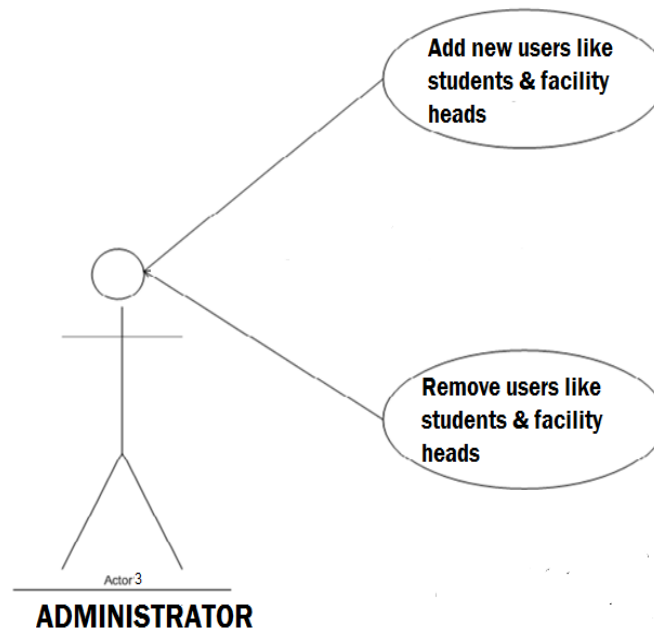


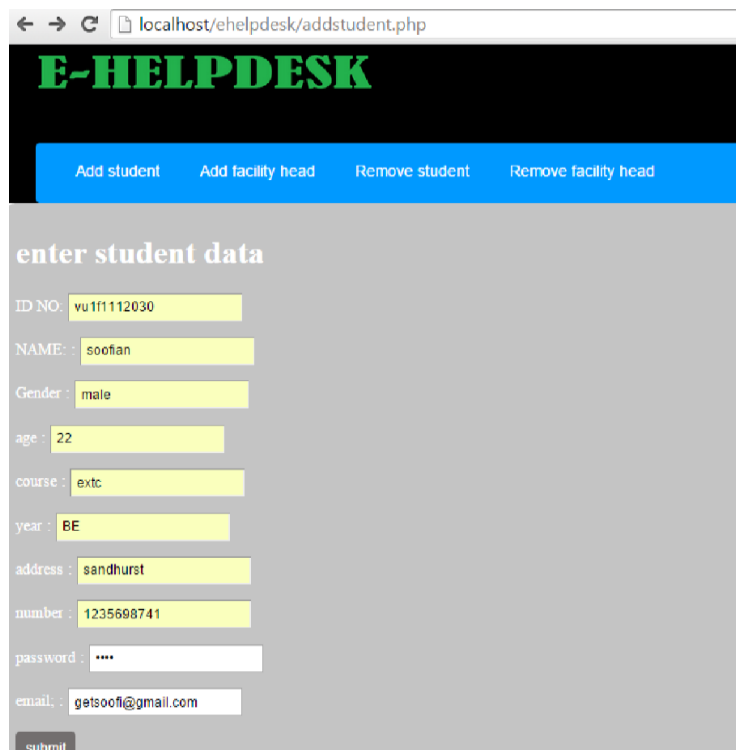
Fig. 3: Use-Case diagram of Administrator

Fig.3 specifies the job of administrator, wherein he has the ability to add or remove students or facility heads from the system.

VI. WORKING

The roles of the different users are clearly mentioned in the use-case diagrams. The working of the system happens in similar fashion.

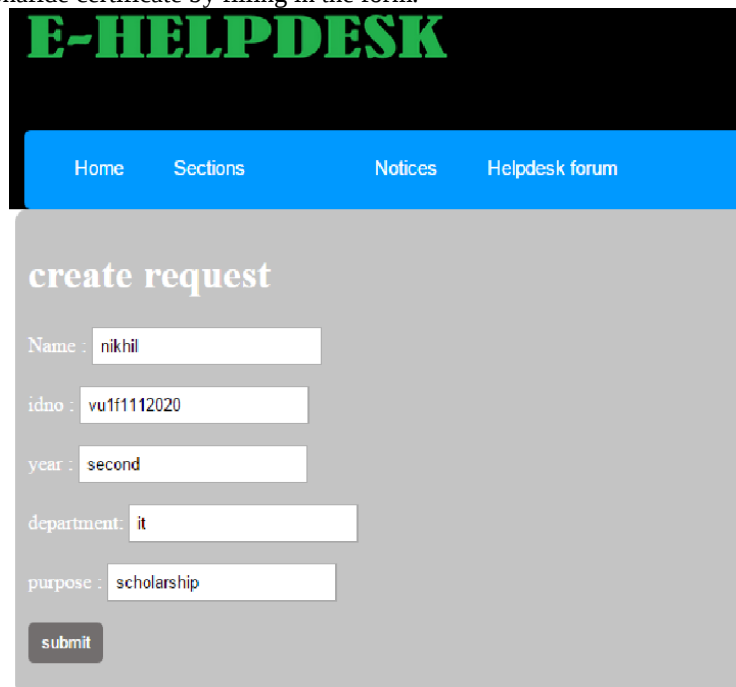
Firstly, there exists different interface for every type of user. The details about the students and facility heads are added by the administrator. Only the administrator is responsible for addition and removal of users. Similarly, he can add new facility heads.



The screenshot shows a web browser window with the address bar displaying 'localhost/ehelpdesk/addstudent.php'. The page has a black header with 'E-HELPDESK' in green. Below the header is a blue navigation bar with four links: 'Add student', 'Add facility head', 'Remove student', and 'Remove facility head'. The main content area is titled 'enter student data' and contains a form with the following fields: ID NO. (vu1f1112030), NAME (soofian), Gender (male), age (22), course (extc), year (BE), address (sandhurst), number (1235698741), password (****), and email (getsoofi@gmail.com). A 'submit' button is located at the bottom left of the form.

Fig. 4: Administrator adding a new student

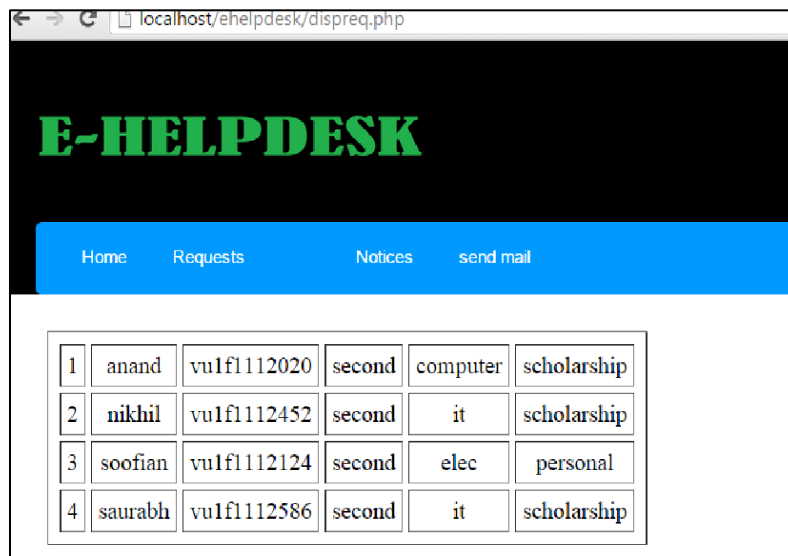
The students after logging in can see different sections and different requests they can make. For example, in the below image the student can apply for a bonafide certificate by filling in the form.



The screenshot shows a web browser window with the address bar displaying 'localhost/ehelpdesk/index.php'. The page has a black header with 'E-HELPDESK' in green. Below the header is a blue navigation bar with four links: 'Home', 'Sections', 'Notices', and 'Helpdesk forum'. The main content area is titled 'create request' and contains a form with the following fields: Name (nikhil), idno (vu1f1112020), year (second), department (it), and purpose (scholarship). A 'submit' button is located at the bottom left of the form.

Fig. 5: Student requesting for a bonafide

The submitted request can be seen by the corresponding facility head. The head can see a table of requests then he can choose whom to reply.



The screenshot shows a web browser window with the URL localhost/ehelpdesk/disreq.php. The page has a black header with 'E-HELPDESK' in green. Below the header is a blue navigation bar with links: Home, Requests, Notices, and send mail. The main content area displays a table with 4 rows and 6 columns. The table contains student request data.

1	anand	vu1f1112020	second	computer	scholarship
2	nikhil	vu1f1112452	second	it	scholarship
3	soofian	vu1f1112124	second	elec	personal
4	saurabh	vu1f1112586	second	it	scholarship

Fig. 6: Facility head can see requests

Then the head can use the send mail function and notify the student about the status of his request.



The screenshot shows the 'send mail' form in the E-HELPDESK interface. The navigation bar is the same as in Fig. 6. The form fields are: First Name (nikhil), Last Name (zanzad), Email (nikhilzanzad@gmail.com), and a Message box containing the text: 'Your request has been received successfully. We will notify about the status of your request shortly.' There is a 'Submit' button at the bottom.

Fig. 7: Facility head sending a mail

The students can use the helpdesk forum for different queries they have and interact with other students.



The screenshot shows the 'Helpdesk forum' section of the E-HELPDESK interface. The navigation bar includes 'Home', 'Sections', 'Notices', and 'Helpdesk forum'. The forum form has a 'Name' field (with 'name' as a placeholder) and a 'Your comment' text area. Below the form is a 'submit' button. A section titled 'Previous comments' shows three entries:

- pankaj : i need it form for sem 5. Please help me. its urgent
- pratik : e-helpdesk is very helpful. must use ...
- aadil : thanks to the developers of e-helpdesk.

Fig. 8: E-helpdesk forum

VII. FUTURE SCOPE

At present Online Help Desk has been developed in English language but it can be developed in any local language so that the person's using this system can have a greater involvement and ease of understanding the system. The project has been currently developed in PHP, but it can also be developed easily using any other platform as desired by the developer with his choice of the database.

ACKNOWLEDGMENT

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