Design and Implementation of a Real Estate Monitoring System

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ABSTRACT

With the enhancements in the Internet and computer technology, we are now able to do most of our work automatically, for example, e-wallet, online payments, etc. As a whole, Internet has made our lives simpler. Making use of modern day Internet and computer technologies, we have come up with an online system useful in the field of construction. Our concept, Real Estate Monitoring System, enables any individual constructor to automate the manual logs maintained at a construction site. By this automation, the owner will be able to keep an eye on the daily consumption of different material, various transactions and the material ordered at the construction site. This system would, therefore, avoid the need of the owner to visit the construction site daily and thus save overall time. Many forms are provided to the supervisor to fill in the daily consumption. These forms include the daily material consumption form, material ordered form, order status form, and add employee form, etc. These forms are updated by the supervisor present at the construction site and the data entered is stored in the database. The owner, at home, logs into his account and views the data updated by the supervisor. The view provided to the owner is in the form of dynamic tables, i.e. the data being shown in the tables is altered as soon as it is changed by the supervisor. All that the owner needs to do is just refresh the page. Thus, the system provides an overall authenticity as the supervisor is owner's one of trusted persons. Also, the time wasted by the owner in visiting the construction site everyday is saved and he can look forward to his other ongoing projects. The forms provided to the supervisor are simple and accept single values. Thus, avoiding the complexity of the html page and making the work much easier. The views provided to the owner are in the form of simple tables which can be easily understood by anyone.

INTRODUCTION

Real Estate Monitoring System is feasible for both, individual builders and large building companies. However, it should be preferred by individual builders as they are used to follow the conventional method of maintaining manual logs.

A builder doesn't have a lot of emphasize to visit the construction site daily to ensure the proper functioning of everyone present there. He manually checks the material stock, and makes his further decisions. This whole process eventually proves to be time consuming and energy wasting. Instead, if the builder has a system where each of this log could be updated and he could see everything from his home, it would be very helpful. The supervisor of the employee can visit the construction site regularly and keep track of all the progress. He will be able to enter information about employees, amount of material being consumed and ordered on this online system which the builder will be able to view from his home. This system will save him a lot of time and energy. The additional advantage of such system is the eradication of corruption arising through the manual maintenance of everything. This would prevent the losses.

Talking about large construction companies, they already have a hierarchical system which prevents all the problems mentioned above to much extent. However, these problems are not avoided completely. Our proposed system can help these companies in much better way. It will reduce the number of employees which will ultimately help them save some money. A large dynamic database seems to have a lot of feasibility in case of these big companies. These databases can be referred from anywhere and by anyone (authorized to do so). Suppose, if someone wants to view the log of three months back, then all he needs to do is just search it in the database and need not manually go through all the paper based databases as was the case with manual logs.

PROPOSED SOLUTION

In a modern computing environment, most challenging job is how to manage your work without investing much of your time. In the present system of Real Estate Construction most of the logs maintained are manual which require both energy and time to be maintained. Also, a log of all the progress, consumption is updated regularly. However, this log can be apocryphal, i.e., there is no guarantee that the updated consumption of construction materials is true. This leads to a lot of loss to the owner.

The best solution to the existing problem mentioned above is to create an online system where all these logs can be kept and updated on a regular basis. This system allows the owner to keep tab on these logs while sitting at his
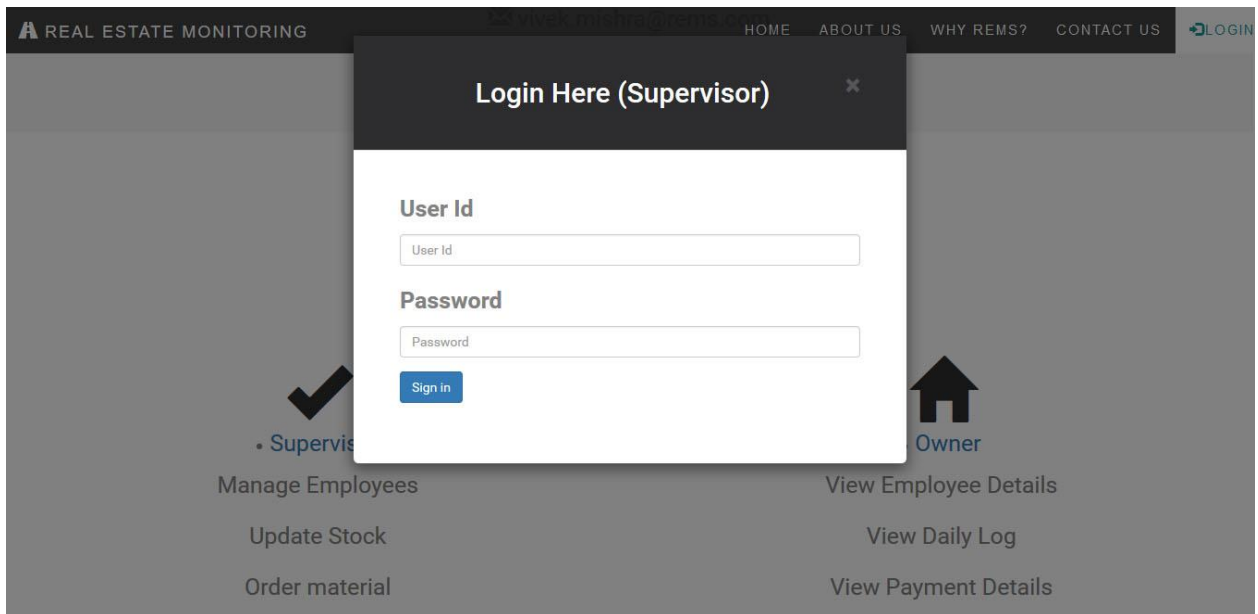
home. This would, in turn, save his time and energy that is being wasted in the present system where he has to visit the construction site regularly.

The Supervisor i.e. a trusted employee working at the construction site who is the man in-charge in the absence of the owner, will update all the details like daily material consumption, new order of materials, payment details of these orders in the database. The owner, at his home, would be able to simultaneously view these updates and track all the progress.

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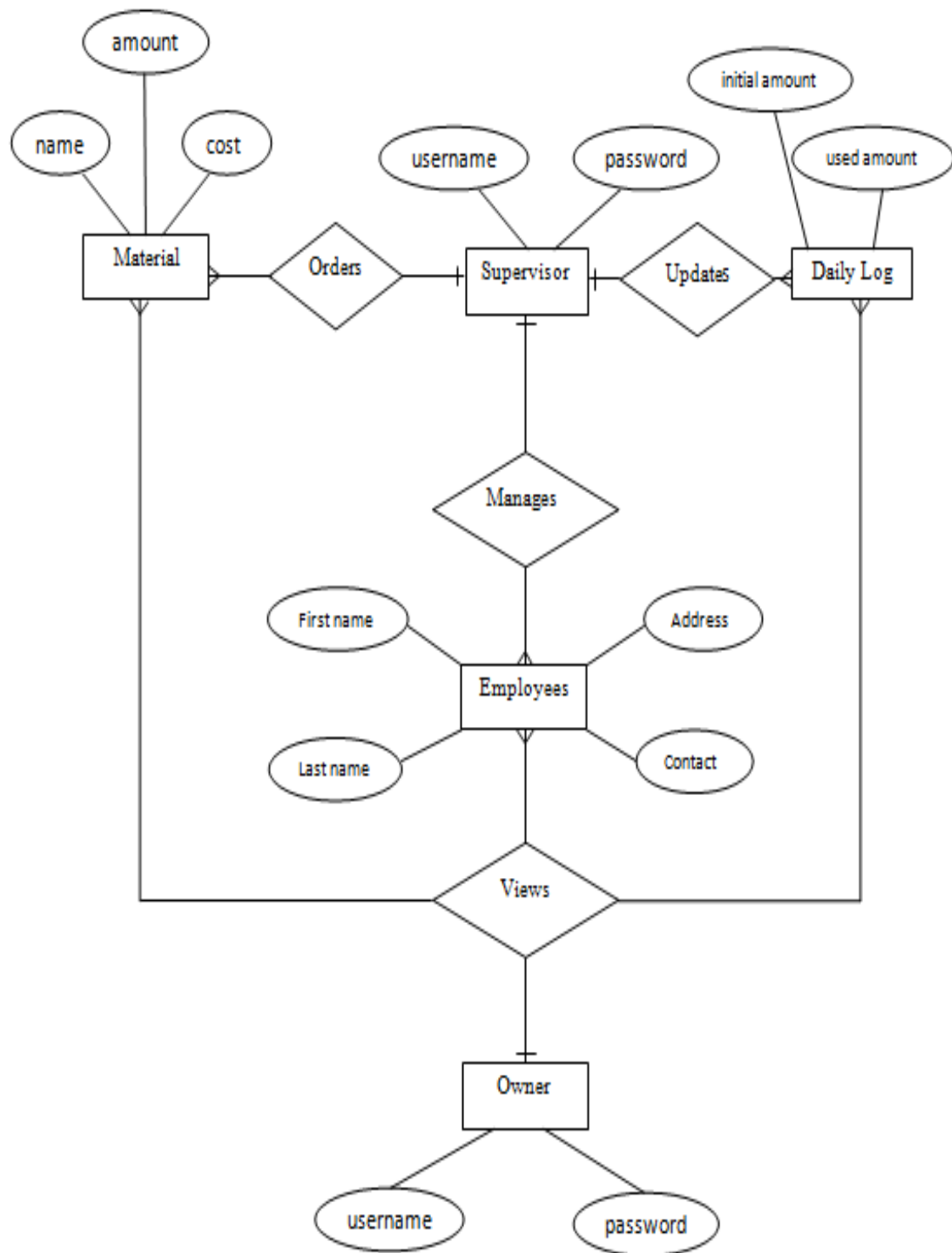
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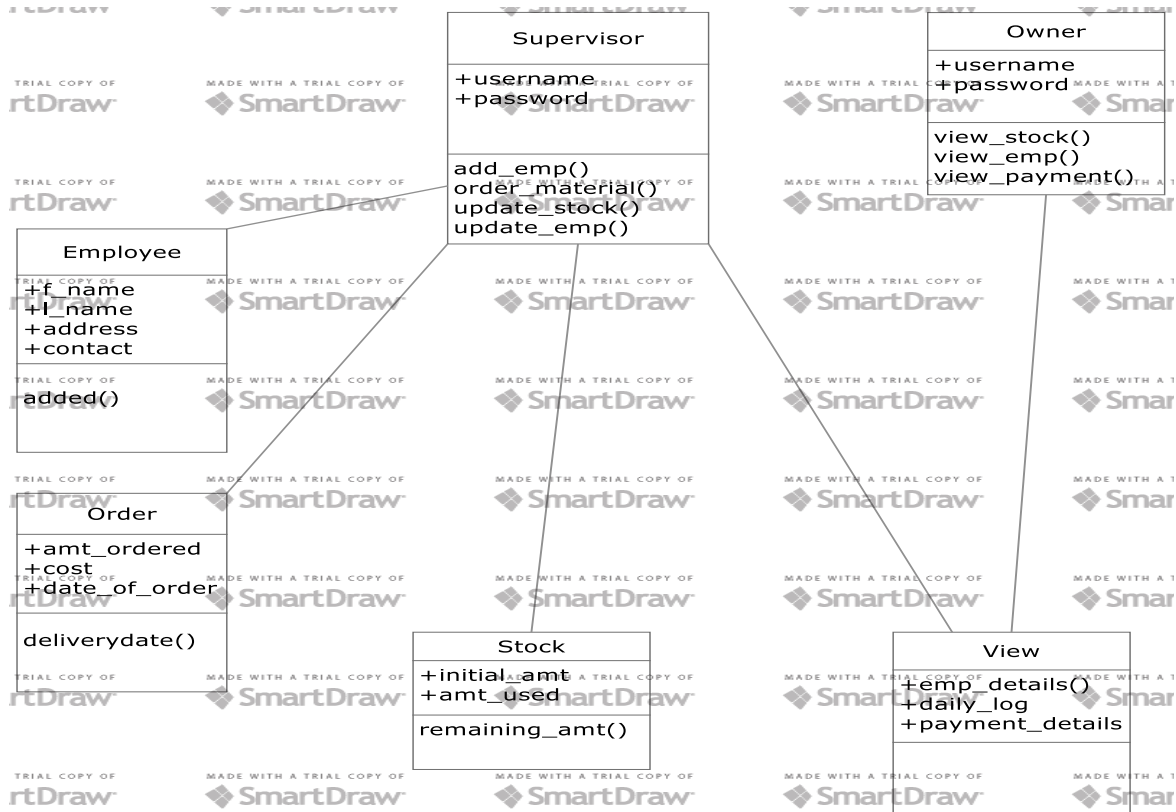
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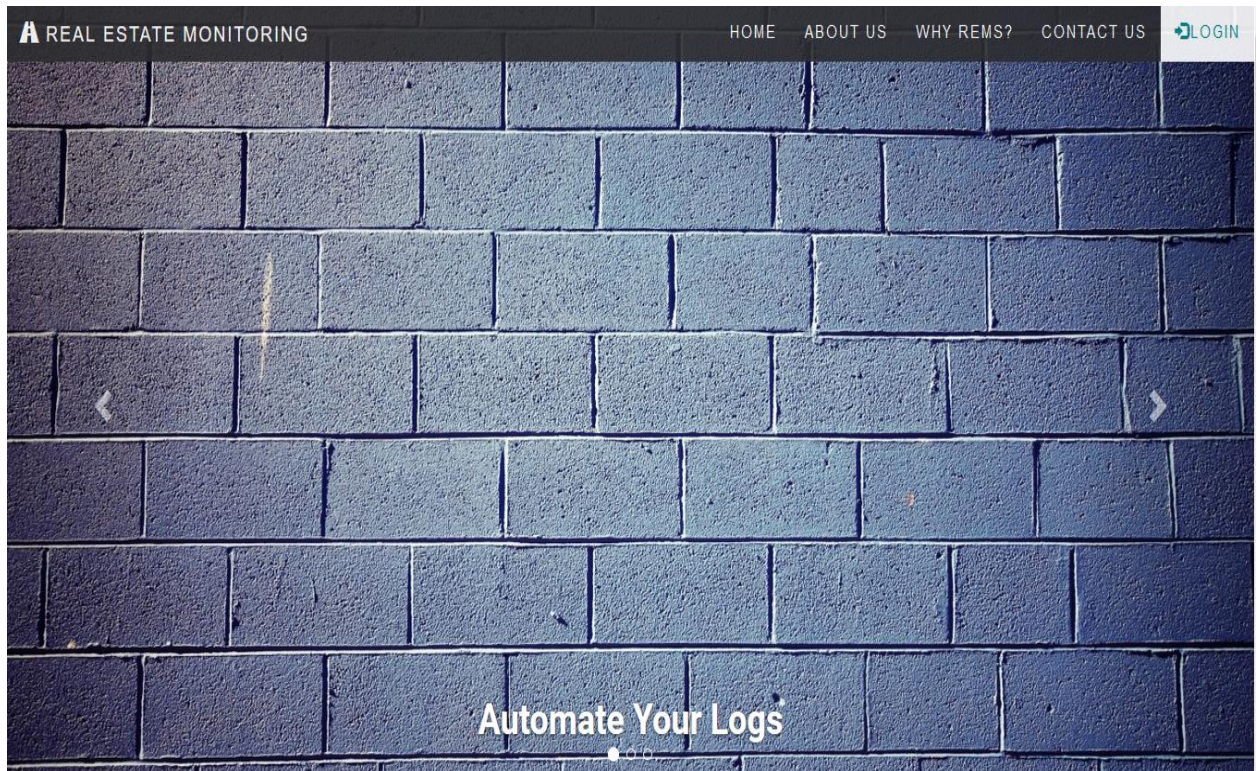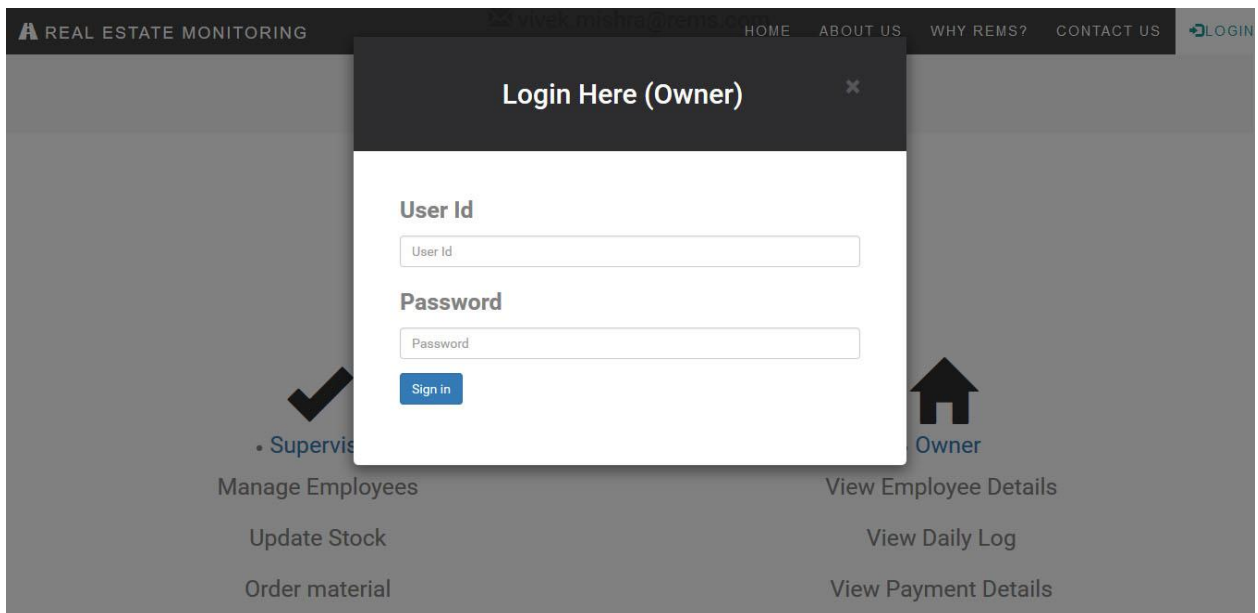
CONCLUSION & FUTURE ENHANCEMENT

Keeping in mind all the constraints that the intended users face currently, we have made efforts to create a system that would help its users greatly and reduce the efforts and stress required.

The design is kept simple and user-friendly. The number of pages being generated is kept minimal so that everything can be done on a single page. For example, all the tasks that the supervisor (or owner) has to perform can be done within a single html page. The user just needs to scroll (or navigate through the navigation bar) to different tasks that he is intended to perform.

Overall, the system performance is accurate and the objectives are met.
However, there are a few areas of improvement which we would have very much liked to implement but couldn't due to initial unsolvable errors. One such feature was a system of online ordering of materials. That would have brought automation to a greater extent.

There are a lot of enhancements that can be made to this project in the future.
Firstly, we have thought of creating a mobile application for the same. This will make it even more user-friendly and handy as there will be no need to carry a computer system, or browse through the website on mobile phones.

Secondly, as discussed in the previous section, a system of online ordering of materials can be added to the existing application.

Thirdly, a centralized database for a group of construction companies can be created. These companies can create a common server and a database for each of them and thus use resources more adequately.

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