Datakeeper: An Online Form-Filling Database

Laura M. Strickman

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Abstract

The average high school student fills out dozens of administrative forms during their high-school career, everything from field trip permission slips to information cards for teachers' files to many repetitive emergency care forms. It would save much time and frustration if the students' pertinent facts were stored digitally. Then whenever a form was required, the data needed could be released via email to whoever requested it, or printed out easily. To ensure security for the information, the students could select which information to release to which form.

1 Introduction

Using PHP in combination with MySQL, the author will create a database accessable via a password-protected website. Users need only enter their pertinent information once; then they can return to the website whenever a form is needed. They'll check the boxes for the information the form requires, then either enter an email address to send the information to, or hit print to generate a printer-friendly form graphic. This will save much time and repetitive work.

1.1 Potential Users

The intended users for Datakeeper are highschool students. If Datakeeper is successful, I hope to make it another function of the TJHSST Intranet. Businesspeople are also plagued by repetitive forms, so Datakeeper could potentially also be of use in the workplace.

1.2 Background

I had considered a project like this for some time, but in the beginning I thought it would be a simple single-user offline program one could use to keep track of their personal data. Converting it to an online format makes it much more easily accessable, though it also raises security issues which I will have to deal with.

2 Languages

I'm writing Datakeeper using PHP, a language designed for creating interactive webpages, and MySQL, which will help me manage the database. I'm fairly proficient in PHP, which makes it easy to create and process online forms, but I know next to nothing about MySQL, so learning it will be an important part of my project. PHP and MySQL are designed to interface well together, which will make my job easier!

3 Potential Improvements

Once I've learned how to work with PHP and MySQL, this project should be fairly simple, so I've devised several add-ons to work on after I've finished the base project.

3.1 Printable Format

My first improvement will be to have Datakeeper generate a pretty, printable form using the user's information. It'll look just like a standard form, with boxes for information, lines for signatures, and the like. The thing that makes this interesting is that the user may request different data on each form, so Datakeeper may have to generate one printable form with name, phone number and social security number, and the next with name, allergies, place of birth and people to contact in case of emergency. It'll have to adapt and create a pretty form from any requested data.

3.2 Form Recognition

Another improvement to Datakeeper would be for it to be able to take a picture of a scanned-in form, recognize where each data field is and what it wants, and fill it in with the user's information, all automatically. This is, needless to say, no small task, since the forms used in school vary so widely in how the data fields are shaped, where what each form should be filled with is listed, and the like. This would also require a text recognition capability. If I can get this last improvement up and running, it'll be exceedingly helpful- just stick a form in your scanner, run it through Datakeeper, and print it out, all filled out with your own data. Cool!

References

[1] Mr. Hyatt's MySQL tutorial.

http://www.tjhsst.edu/ dhyatt/mysql/

[2] The Official MySQL help page.

http://www.mysql.com/doc/T/u/Tutorial.html

[3] The MySQL Documentation Book.

www.mysql.com/doc/