P1M4 Report
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URL: http://betaweb.csug.rochester.edu/~szhang73/welcome.html

The initial purpose of the project was to create a database system that uses existing information of the kids, schools and police departments to easily track the location of a missing kid. The database should have multiple functions that allow the users to extract and integrate pieces of information of a kid, such as the phone number of his guardian, the address of his school and his ID to assist with the location identification process. We have successfully achieved this purpose in our project. The database we created contains 5 relations of the kids, schools, kids' guardians, police departments and missing cases respectively. We then set up various useful functions such as Find Kid and Find Guardian to allow easy access to the database on the user end. Therefore, we have established an easy-to-access and multifunctional platform for the people in the community.

From the beginning of the project, we plan to implement a database that can solve real life problems and we come up with a kids security database. The hardest part about the project so far is that we spent a long time with load.sql. Initially, we try to put in real world data that we collected from Rochester local websites. However, when we try to load in the data, there are errors. After digging deeper into the problem and consulting help from professor Zhupa, we realized that it's because of the irregularity of our collected data. So instead we came up with our own data with simpler values and load.sql finally worked. The most fun part is changing the website design and also coming up with our new functions. We thought of many interesting real life situations, for example, when a child can only remember part of his/her parents' names or a child's address changes. We have added these new functions into our webpage and made the website very user-friendly.

We followed the original plan consistently from the beginning to the end. And we have created the relations and the functions as described in our original plan. Luckily, there is no drift off from the original plan. If we have another semester, we will enhance our website with even more relevant functions and try to solve the problem of being able to load complex dataset into mysql.

Interesting cases:

1. Enter the kid's personal information to add a new kid to the security database.
2. Enter the kid's ID to delete a kid from the security database.
3. Enter the guardian's personal information and his/ her kid's ID to add a new guardian to the database.
4. Enter the kid's ID to find his/ her guardian's information.
5. Enter the kid's ID to find his/ her information.
6. When the lost kid's personal information can not be identified, enter the kid's estimated age range, sex, and district.

7. When a child can’t remember his/her parent’s full name, enter a part of the name to find the guardian information. (ex. J for jee)
8. Enter the kid's ID and guardian’s first name to delete a guardian (ex. Kid id: 14, first name: Alt)
9. Update a child’s address by entering ID and new address (ex. Kid id: 14, New Address: Corn Hill)
10. Update a guardian’s contact by entering ID, guardian’s first name, and new contact (ex. Kid’s id: 14, guardian first name: Alt, new contact: 77788)
11. Find all missing cases in the district by entering Kid’s ID (ex. Kids’ id: 14)
12. Find all students from a school by entering school ID (ex. School ID: 11111)

We have implemented all possible invalid input cases.