CHILD DEVELOPMENT GROWTH CHART AND VACCINATION DATABASE

DESCRIPTION

The objective of the project is to make an application that interacts with databases to determine useful information pertaining to the child's growth/development as well as notify and keep a list of vaccines to be administered.

Growth charts are used by pediatricians to determine a child's measurements(eg. weight, head height, head circumference) relative to other children of the same age. CDC growth charts are used to calculate the percentile(z-score) for distinct measurements of a child below the age of 20. These are helpful in determining abnormal or any irregular growth patterns and possible warning signals to ensure optimal health of the child.

This application aims to provide a user -friendly UI which would be useful in automating and simplifying this procedure to speed up the process.

FUNCTIONALITIES

1. Displaying and calculating percentile for growth tracking: Procedures would be written to compute the above. It is done individually for each registered child. The information for the respective child is simultaneously updated.
2. Warnings for abnormalities detected: Triggers would be written to detected abnormalities in the results for percentile based on the following:
    a. Abnormally slow growth rate.
    b. Height below the 3rd percentile.
    c. Height significantly below genetic potential, i.e., >2 SD below mid-parental height.
    d. Possible systemic diseases for the above would be indicated.

3. Vaccination tracker/notifier: These would be based on the age of the registered child and would be user specific.
4. User data: Each child would have his/her data individually stored in the database. Multiple attributes such as date of previous visit, user id, previous reports and parent's data would be stored.

SOFTWARE USED:

Front-end: C#, Winforms
Backend: MySQL

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