

Conclusion & further work

8.1 Introduction

There are few activities to be completed in order to give a good finish to the software. These functions were introduced by the developer purely for the academic interest and those are not come up as initial user requirements.

However after demonstrating these features, clients were highly fascinated about these features and insisted to continue development in that line of development.

8.2. GIS based mapping of the antibiotic resistance

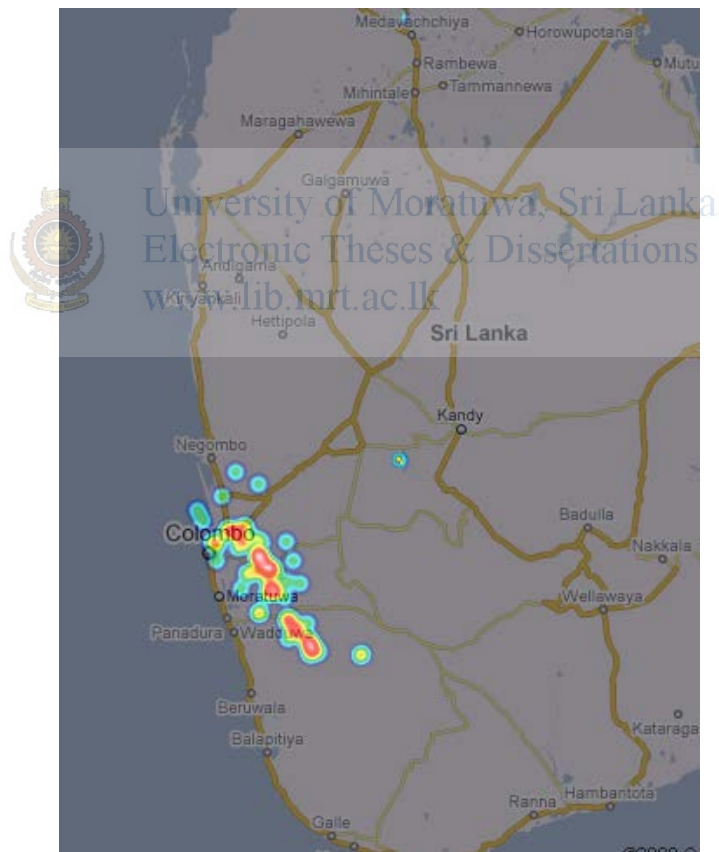


Figure 28: GIS visualization of antibiotic resistance

Author has used the Gheat [34] map API with Aspen [50] web rendering engine to layer

additional map tile layer over the Google map [42, 10, 24] API. Python Imaging library [47] is the main image generation tool used in this system [43].

Antibiotic sensitivity data will be read for the MySQL database and will be written to a SQL Lite table using operating system based commands.

This interface will aid consultant microbiologists to visualize patterns in the ABST resistance of particular bacteria for a particular antibiotic [12].

8.3. Genetic algorithm based prediction of antibiotic resistance

Developer was decided to explore the ability of Genetic Algorithms to predict the antibiotic resistance based on the available data of the system [11, 19, 20, 22, 23].

Genetic algorithm was preferred over other technologies since it can arrive in to new solutions [41, 9].

8.4 Offline data synchronization

Offline data synchronization feature with MySQL data base dump and table restore is planned. This feature will assist the users to continue with the laboratory work even in a situation of net work interruption.

Summary

There are some activities partially completed by the developer. Those are pure academic research, which is beyond the basic user requirements stated by the client and the client organization.



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