Virtual Doc

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Abstract:

An android application that acts as a primary virtual doctor. The user will input the symptoms, and according to database the primary remedy as well as precautions of the most probable disease will be displayed . The user can further narrow down his search by giving more symptoms. The database will be thoroughly researched and approved by a certified doctor.

Motivation:

The basic knowledge of the human body is lacking in general public. People need someone or something to guide them during basic and common ailments. They should know whether a symptom is serious or not.

Also, doctors nowadays take advantage of lacking knowledge of basic biology and start unnecessary as well as expensive treatments for minor diseases.

This app will empower the user and also give a handy, easy to reach virtual doctor.

Resources Required:

Internet, Android studio, Laptop

Implementation:

- Create a class disease, which has attributes such as symptoms, remedy as well as precautions.
- Symptoms will be prioritised according to their probability.
- Also, there will be a probability attribute for the diseases having same symptoms.
- The diseases will be classified according to the region of the body in which they occur. This will be included as another attribute of class disease.
- The algorithm used to search the most probable disease will use these attributes.
- The algorithm will basically be a linear search based on the symptoms. The disease with most matched-symptoms as well as the maximum probability of occuring will be displayed as the most probable disease and other diseases will follow the same order.
- The class disease will also contain an attribute called scan, which will be non-empty for certain diseases. This attribute will suggest various medical scans/tests for confirmation of certain diseases, also having a priority order.
- The UI will allow the user to first select a specific region in which the disease is present. Then according to he input symptoms, the specific diseases will be displayed along with their remedy and precautions.
- Depending on the region of body selected, the user will be provided a list of symptoms that he/she may have.

- ❖ According to this new input, we will try to narrow down the search for the most probable disease, using the database for priorities as well as probablities.
- ❖ If the disease turns out to be serious, the user will be advised to consult a doctor.
- ❖ The code and design of the app will be done using Android Studio.

Execution Of App:

Timeline:

Week 1: We will create the database of class disease,its remedy, symptoms and precaution(pre and post) by consulting a certified proffessional doctor. Also the design as well as graphics of the app will be decided and implementation will begin.

Week 2: The database will be completed along with specific priorities of the required attributes. We will begin writing the java code along with the algorithm, i.e. ,the back end of the app. Also we will continue the work of the front end , i.e. ,the XML code along side the main code.

Week 3: By this week ,if everything goes as per the plan, we will finish the main part of the app, i.e., both the ends of the app.The remaining part of this week will be used to cover up any backlogs.

Week 4: If the above part is finished, we will try to add a google map feature, which will tell the user the location of doctors available in the neighbourhood, if connected to the internet. If possible the doctors will be rated according to the patient satisfaction. This will also require confirmation from the doctors who would like to be named in this feature.We will use the api of google map.

Week 5: If the above part is finished, we will also try to include chat feature with online doctors for users connected to the internet(like doctorspring.com), using api such as smack.

Week 6: Buffer period.

Learning Objective:

- Practical implementation of theoretical knowledge in real life problems.
- Learning how to create a professional app.
- Coding in java ,android and XML.
- Working in a team.