PERSONAL HEALTH MANAGEMENT SYSTEMS

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Abstract—In order to access and store the information, we need to have a desired compatibility to handle large amounts of data. Data models are a tool that helps to determine the structure of the information, in order to improve communication and accuracy in applications that use and exchange data with each other for a common purpose. The existing models are generic and therefore are not suitable to support personalized systems and they do not consider the quality of clinical and personal data, required in health care. This framework ensures the security of personal and clinical data to relate it with health standards, particularly with the Personal Health (PHR) which addresses the recommendations of the parameters that must be within a personalized health system.

Index Terms—Personalized system in health, MVC, Naïve Bayes Algorithm.

I. INTRODUCTION

You may feel there’s nothing you can do about stress. The bills won’t stop coming, there will never be more hours in the day, and your work and family responsibilities will always be demanding. But you have a lot more control than you might think. Stress management is all about taking charge: of your lifestyle, thoughts, emotions, and the way you deal with problems. No matter how stressful your life seems, there are steps you can take to relieve the pressure and regain control.

It’s easy to identify sources of stress following a major life event such as changing jobs, moving home, or losing a loved one, but pinpointing the sources of everyday stress can be more complicated. It’s all too easy to overlook your own thoughts, feelings, and behaviors that contribute to your stress levels. Sure, you may know that you’re constantly worried about work deadlines, but maybe it’s your procrastination, rather than the actual job demands, that is causing the stress.

To identify your true sources of stress, look closely at your habits, attitude, and excuses:

- Do you explain away stress as temporary (“I just have a million things going on right now”) even though you can’t remember the last time you took a breather?
- Do you define stress as an integral part of your work or home life (“Things are always crazy around here”) or as a part of your personality (“I have a lot of nervous energy, that’s all”)?
- Do you blame your stress on other people or outside events, or view it as entirely normal and unexceptional?

Until you accept responsibility for the role you play in creating or maintaining it, your stress level will remain outside your control. Physical activity plays a key role in reducing and preventing the effects of stress, but you don’t have to be an athlete or spend hours in a gym to experience the benefits. Just about any Form of physical activity can help relieve stress and burn away anger, tension, and frustration. Exercise releases endorphins that boost your mood and make you feel good, and it can also serve as a valuable distraction to your daily worries.

While the maximum benefit comes from exercising for 30 minutes or more, you can start small and build up your fitness level gradually. Short, 10-minute bursts of activity that elevate your heart rate and make you break out into a sweat can help to relieve stress and give you more energy and optimism. Even very small activities can add up over the course of a day. The first step is to get yourself up and moving. Here are some easy ways:

- Put on some music and dance around
- Take your dog for a walk
- Walk or cycle to the grocery store
- Use the stairs at home or work rather than an elevator
- Park your car in the farthest spot in the lot and walk the rest of the way
- Pair up with an exercise partner and encourage each other as you workout
- Play ping-pong or an activity-based video game with your kids.

II. MVC WITH CONFIGURABLE CONTROLLER

When application gets large you cannot stick to bare bone MVC. You have to extend it somehow to deal with these complexities. One mechanism of extending MVC that has found widespread adoption is based on a configurable controller Servlet. The MVC with configurable controller Servlet is shown in Figure 1.1

![Figure 1.1: MVC with configurable controller servlet](image)

When the HTTP request arrives from the client, the Controller Servlet looks up in a properties file to decide on the right Handler class for the HTTP request. This Handler class is referred to as the Request Handler. The Request Handler contains the presentation logic for that HTTP request including business logic invocation. In other words, the Request Handler does everything that is needed to handle the HTTP request. The only difference so far from the bare bone MVC is that the controller servlet looks up in a properties file to instantiate the Handler instead of calling it directly.

### III. HARDWARE AND SOFTWARE REQUIREMENTS

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<th>SI No</th>
<th>Parameter</th>
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</thead>
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Table 11: Hardware and software Requirements

IV. LIFE CYCLE OF GENERIC FLOW

This section deals with Life cycle of Security Vulnerability Detection, Analysis and Remediation in Enterprise Applications and State diagrams and possible transitions between the states. The following are the stages for any user action

1. View – this is the location in which the user will enter the data and performs some action
2. Action Form- this is the POJO which will contain the variables as defined in the view, the setters of the method and getters of the method. The data will get automatically binded.
3. Action: This is a class which contains the execute method which will be responsible for handling the
logic of the project and is responsible for delegating the result to an appropriate view. This will also make use of helper methods to perform business logic.

V. IMPLEMENTATION

The figure shows the login module for the Patient. If the Patient enters the valid username and password then the Patient would be able to login otherwise not. In a similar way the patient and doctor also is applicable.

VI. RESULTS

Classification of Stress Level based on Professional Experience

![Classification of Stress Level for Users <2 years.](image)

![Classification of Users for Age Group 2 to 5 years](image)

![Classification of Users for Age Group >5 and <8 years](image)

![Classification of Users for Age Group >8 years](image)
In this paper there are four actors namely User, Admin, Coordinator and Doctor. The user can be external user or he can be internal user. Both the users attend the stress screening tests. After the users attend the test, a score is computed and then based on the score the users are classified as No Stress, Low Stress, Medium Stress and High Stress. Different suggestions are provided based on the stress classification. If the Stress level is HIGH then appointment request is generated for internal user and register button is provided if external user. The Admin can create a coordinator, doctor, admin and other user as well. Register User modules allow new users to be created. Track history is used to obtain the graph of the score levels and number of times test has been taken. For each test time stamp is also computed. Doctor is responsible for approving appointments and taking sessions for a user. Coordinator is used to approve appointments.

The paper also allows second type of screening test but for only registered users to have the data related to 3 types of diseases and then find the probability and negative probably using naïve bayes theory of interruption.

The classification is also performed based on the disease levels.

FUTURE SCOPE

[1] The application can be extended to have emails or new letters to improve stress levels.

[2] You tube video links can be provided for the user to manage the stress level.

[3] The Scanning centers can be linked to the application.

REFERENCES


