~ Project name: Dr.Me ~

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Criteria	TA/Grader	Instructor
Presentation		
Overall		

Requirements Report

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1. Introduction

Medication of illness' and healthcare services maintain people a long life. Delivery of these services is an important issue to ensure the permanency of human kind. Public and private hospitals, health facilities, policlinics, family doctors and pharmacies provide health services. However there are people who cannot receive these services due to transportation problems, iatrophobia (fear of going to doctor) etc.. Thereby our presented/proposed project Dr.Me , aims to advice/lend assistance people about their diseases.

Dr.Me which is a Desktop Java Application informs about illnesses considering their related symptoms and prognostic factors. Consecutively Dr.Me App, using the users' personal info, provides an access to related branch of hospital/healthcare by making appointments. Considering available diseases and their symptoms' list in this program, treatment of one disease will be faster for doctors, too. In large scale, educational data can be developed further by doctors. In case of an emergency situation, nearest hospital display and call-112 services are enhanced by Dr.Me. Moreover separate medical tests which are available for infants and elders; and an application which will provide the blood needed for health organizations like Kızılay are ensured.

Who USES?

→Patients or one that logs on for getting info.

→Doctors.

→Health officer.

Where to USE?

→Hospital Information System.

→Indıvıdual/personal access.

→Community Clinic Information Utility.

Which is USED for?

→Used to obtain information about diseases and symptoms.

→To make an appointment.

→To reach 112 and an ambulance in case of emergency.

→To get first aid information in case of emergency.

→Monthly and annual checkups alerts and guidance.

→To get information about doctors

Dr.Me uses..

→Java App.

→Database (MySQL)

→Interfaces in Java

→ Abstract classes and GUI

2. Details

2.1 Features

The program provides three separate *interfaces* which would show entries for doctor, health officer and patient mode.

Patient Mode:

- Available for people who want to learn about diseases
- To use the program, s/he enters information about gender, age, chronic illnesses, allergies etc...
- By selecting the symptoms s/he has, the program asks for specific question about related symptoms.
- Program algorithm would depend on dynamic responses to the questions with respect to user's answers.
- Program takes these symptoms and matches them with a *database* which holds the data about illnesses and their symptoms.
- By using the information which users entered to the program, program shows relevant branch of healthcare.
- Using the list of doctors which will be provided by the program, patient can see doctors who can treat her/his illness and make an appointment easily.
- Urgency alert is also displayed in this program by systematic rating system of illnesses.

Doctor Mode:

- Available for only doctors.
- To use the program, doctor enters information about her/his branch, works, experiences etc…
- Likewise doctor can reach the data about illness, symptoms to ensure appropriate treatment.
- Doctor can apply for foreshow of medical analysis reports and declare them to be sent to him/her before next appointment.
- Doctor can interfere the emergency situations directly by the health officer's alert.

Health Officer Mode:

- Available for officers who works in health facilities.
- S/he sends alert messages and manages emergency situations in case of blood need.
- About appointments, if patient does not come, warns the patient.
  If the 'absent' patient is elder or infant, health officer informs their doctor.
  If necessary, officer provides ambulance (e.g. dialysis patient)

2.2 Additional Features

Arrangement of time	Immediate access Emergency

Clinical Examination (15 minutes)

Analysis Result (10 minutes)

Call 112 (log on/off) does not matter

Call Ambulance (Hospital Selection)

> ➢ **If log on=> using users address information immediately ambulance service to that location**

EMERGENCY SITUATIONS

List(general) ──────────────▶ **First aid steps.**

- o **Poisoning**
- o **Suffocation**
- o **Bleeding….**

BLOOD NEEDED

➔**Send notification(e-mail) to needed blood everyone.**

Foreshow The Medical Analysis Reports to Doctor

1) **Doctor diagnose (store the outcome).**
2) **Doctor states required test results (informs the next appointments day).**
3) **Lab. results displayed to doctor before the appointment (if necessary doctor comments) .**

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┌─────────────────────────────────┐
│         Make Appointment         │
└─────────────────────────────────┘
                 ▼
```

1) **Patient is oriented to relevant branch.**
2) **Display hospital, choose location, if address is known, show nearest hospitals.**
3) **Display doctors (list of doctors according to their name, branch, biography, number of patients (arrange rush hour), patients evaluations), show the doctors that have been consulted before.**

```
┌─────────────────────────────────┐
│         Alert for Check-up       │
└─────────────────────────────────┘
                 ▼
```

1) **Patient provides information about regular check-up "Date"/ "Name"/ "Branch"/ "CheckupName"**
2) **Command**
   - o **Give patient alert message offer me appointment**
   - o **Directly make an appointment for patient.**
3) **Personal alert**
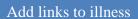   - o **Patient writes his/her own message and appointment detail.**

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┌─────────────────────────────────┐
│            0-2 ONLY              │
└─────────────────────────────────┘
                 ▼
```

➔**Regular vaccination**

➔**Breast milk and nutrition**

```
┌─────────────────────────────────┐
│           ELDERS ONLY            │
└─────────────────────────────────┘
                 ▼
```

➔**Alzheimer test(advices for treatment)**

➔**Osteoporosis (advices for treatment)**

➔**Parkinson(advices for treatment)…**

Add links to illness

⬇

Direct to link (www.example.com)

More Rational Outcome

⬇

If more than 3-4 symptoms heads a specific illness→ show the related illness(order of importance).

Reserve Details for Doctor

⬇

1) **Show detailed name.**
2) **Show regular name (colloquial name).**

2.3 Similar Programs

There are programs which provide diagnostic examinations about illnesses and gives advices about treatments. The features which are denoted in our program Dr.Me, provide more focused and detailed approach than existing programs in the web. Since immediate emergency call, special medical tests, elder only and infant only programs are covered, large scale medical data will be disturbed in our program.Also the interfaces that presented in our program Dr.Me, doctor and patient mode, procure the doctor-patient relationship, which is not available in any web-based system. The appointments are made easily by patients as the desired branch and specific doctor selections are available. Patients' medical records, including analysis reports are accessible for every Dr.Me doctor and medical attendant. All these features are not entirely covered in any program. However separate operational programs are available:

In the Program "symptomchecker" , symptoms directly checked and resulted. And options for users are limited as "symptomchecker" uses only age and gender. Then using the data user entered, probable illnesses are displayed by its advices.

3. Summary & Conclusions

This program ensures the prediagnosis which would prevent commotion in the hospitals. General symptoms which are examined in this program provide systematic approach in the length of treatment period. By diagnosing her/his illness, patient foresees the seriousness of situation, which would let her/him to consult a medical attendant even s/he assumes the situation is not important. The interfaces of doctor, patient and health officer, presented in our program Dr.Me, provide health information system. Developable and applicable environment will be enhanced by Dr.Me.

References

1-http://www.medicinenet.com/symptoms_and_signs/article.htm#introView