

TECHNICAL ASSESSMENT

SENIOR ANDROID DEVELOPER

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PROJECT DESCRIPTION

Patient Education proved to deliver better patient results by helping them get more insights on their conditions and possible diagnosis, and therefore helping them adhere to medication and treatment regimens and make decisions towards a healthier life.

As part of your assessment, you are asked to build a prototype of three pages of an Android Mobile Application. The app is intended for patients that are experiencing symptoms and having their heart remotely monitored as prescribed by the doctor.

During their diagnosis journey, your application delivers educational material to patients categorized in programs. To keep the patient engaged, they will have a score card that will show them their progress in their education journey.

Please propose and create an algorithm for scoring using parameters you see fit.

Each program consists of one or multiple articles and videos. Articles are in PDF formats and Videos can be uploaded to YouTube but must be visualized in the application.

There is also a section that shows the patients the latest visualized articles or videos where they can continue reading or watching

Bonus: Google fit integration to collect data, and visualize it in a user-friendly way

DETAILED DESIGN

1. Main Page

The main page is the first page that the patient can see, where all the information resides including their score, history, and the list of programs.

Figure 1 below shows the expected design with the sample data.

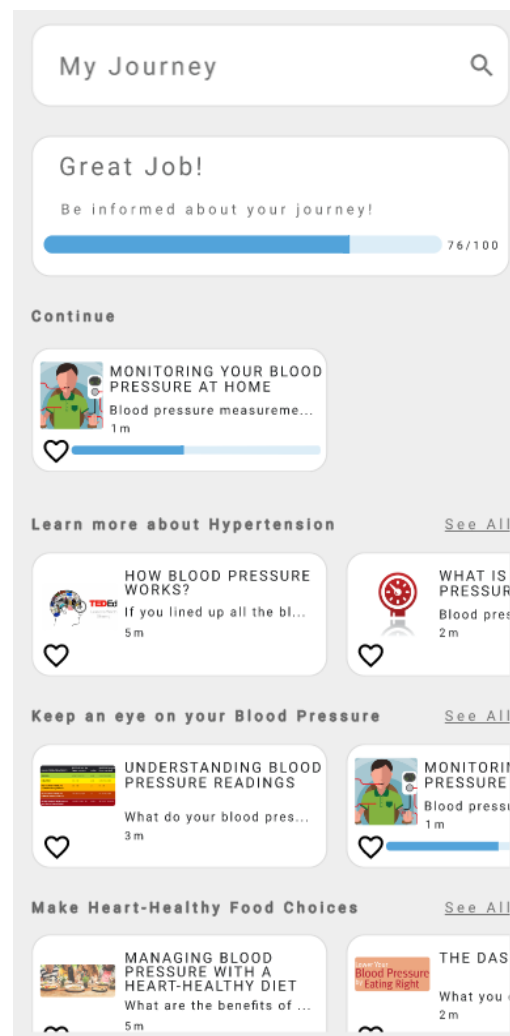


FIGURE 1

2. Video Player

The Video Player page allows the patient to see the video as shown in the Figure 2 below.

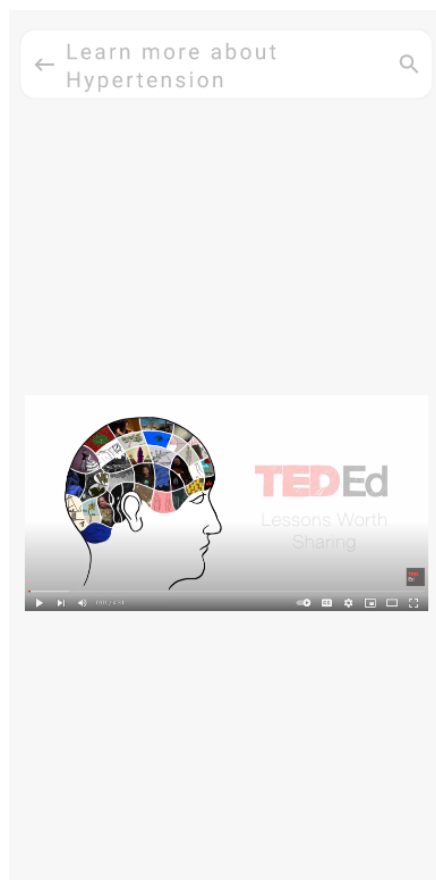


FIGURE 2

3. PDF Viewer

The PDF Viewer is intended to view the PDF articles saved locally on the phone as shown in the Figure 3 below.

← What is High Blood Pressure? :

What is High Blood Pressure?

Blood pressure is the force of blood pushing against blood vessel walls. It's measured in millimeters of mercury (mm Hg).

High blood pressure (HBP) means the pressure in your arteries is higher than it should be. Another name for high blood pressure is hypertension.

Blood pressure is written as two numbers, such as 120/80 mm Hg. The top, or larger, number (systolic pressure) is the pressure when the heart's beats. The bottom, or smaller, number (diastolic pressure) is the pressure when the heart rests between beats.

Normal blood pressure is below 120/80 mm Hg. If you're an adult and your systolic pressure is 120 to 129, and your diastolic pressure is less than 80, you have elevated blood pressure. High blood pressure is a systolic pressure of 130 or higher, or a diastolic pressure of 80 or higher, that stays high over time.

High blood pressure usually has no signs or symptoms. That's why it's so dangerous. But it can be managed.

Nearly half of the American population over age 20 has HBP, and many don't even know it. Not treating high blood pressure is dangerous. High blood pressure increases the risk of heart attack and stroke.

Make sure you get your blood pressure checked regularly and treat it the way your health care professional advises.

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)	and	DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120-129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130-139	or	80-89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (seek care during emergency)	HIGHER THAN 180	and	HIGHER THAN 120

Am I at higher risk of developing HBP?

There are risk factors that increase your chances of developing HBP. Some you can control, and some you can't. Those that can be controlled are:

- Cigarette smoking and exposure to secondhand smoke
- Diabetes
- Being obese or overweight
- High cholesterol
- Unhealthy diet (high in sodium, low in potassium, and drinking too much alcohol)
- Physical inactivity

Factors that can't be modified or are difficult to control are:

- Family history of high blood pressure
- Race/ethnicity
- Increasing age
- Gender (males)
- Chronic kidney disease
- Obstructive sleep apnea

Socioeconomic status and psychosocial stress are also risk factors for HBP. These can affect access to basic living needs, medications, health care professionals, and the ability to adopt lifestyle changes.

How can I tell I have it?

The only way to know if you have high blood pressure is to get it checked regularly. For proper diagnosis of HBP, your health care professional will use an average based on two or more readings obtained on two or more visits.

What can I do about HBP?

- Don't smoke and avoid secondhand smoke.
- Beach and maintain a healthy weight.
- Eat a healthy diet that is low in saturated and trans fats and rich in fruits, vegetables, whole grains and low-fat dairy products. Aim to consume less than 1,500 mg/day of sodium (salt). Even reducing your daily intake by 1,000 mg can help.
- Get enough potassium. Aim for 3,500–5,000 mg of dietary potassium per day.
- Limit alcohol to no more than one drink per day if you're a man or two drinks a day if you're a woman.
- Be more physically active. Aim for 150 minutes of moderate-intensity physical activity or at least 75.

FIGURE 3