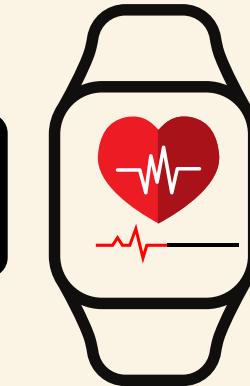




# ~~Automated Heart~~ **RATE MONITORING SYSTEM**

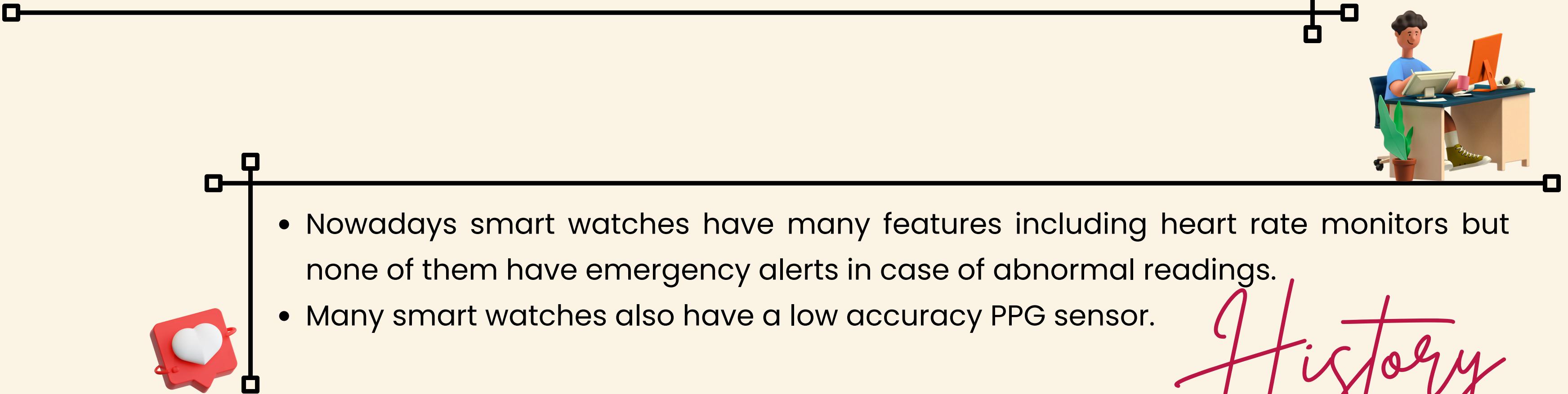
AHRMS



...

# Project

- This project is designed to monitor heart patients or any people who need to measure the heart rate.
- It automatically sends an emergency call/message in case of an abnormal heart reading



# History

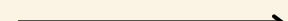


# BENEFITS

- Detects abnormal heart readings
- Has high accuracy
- Fast
- Safe and reliable
- Age specific

# LIMITATIONS

- High cost of accurate sensors
- Limited Features
- Developing Stage
- Cannot operate in no network area
- Emergency calls or messages may not deliver in time



# MODULES



## FUNCTIONAL

- Registration Page
- Syncing Data
- Logic Module
- Emergency Module
- Contact Module



## NON-FUNCTIONAL

- Authentication
- Data Security
- Performance
- Maintenance



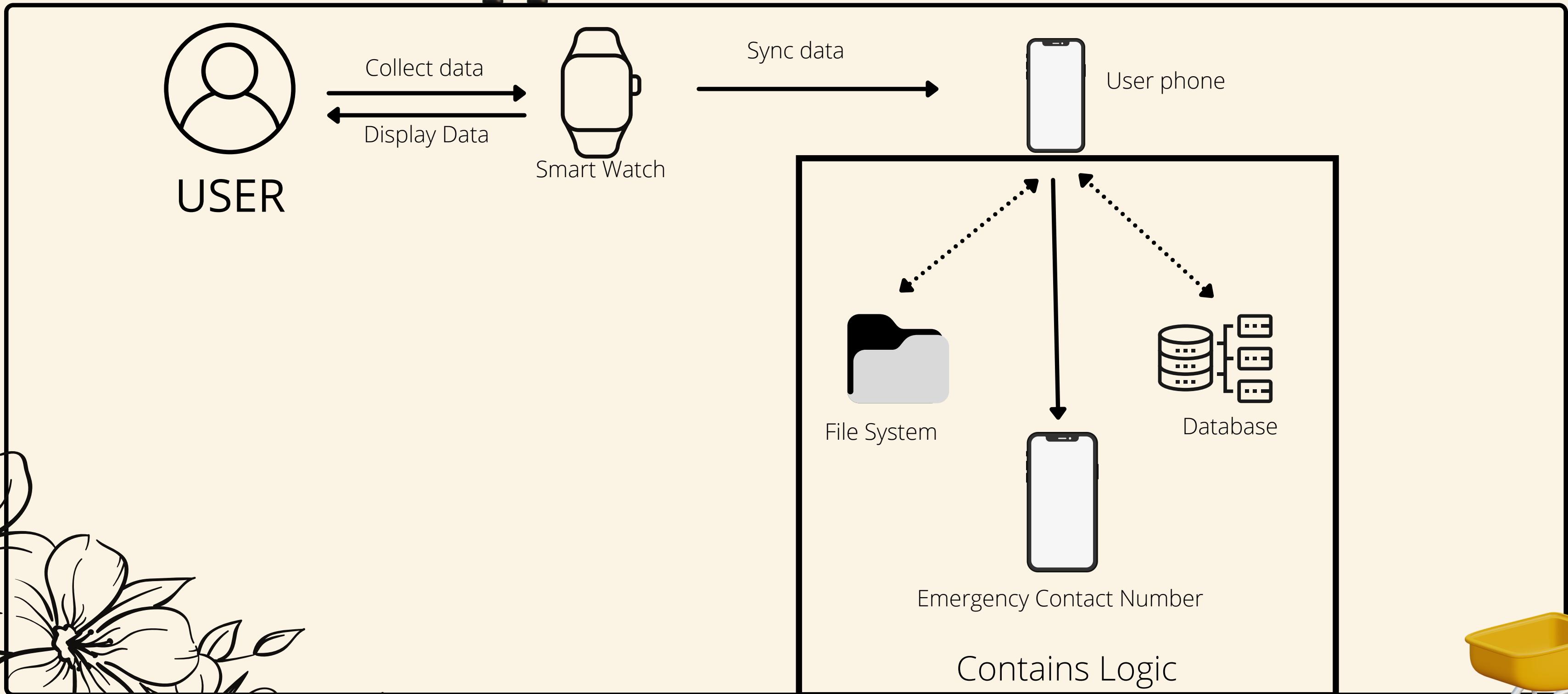
## SURVEY

- High Representativeness
- Good Statistical Significance
- Precise Results





# ARCHITECTURE DIAGRAM



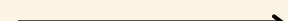
# SOFTWARE REQUIREMENTS:

- Windows 8+ or higher version of OS
- Any latest wearable OS
- Any programming language code editor



# HARDWARE REQUIREMENTS:

- Smart Watch
- PPG sensor
- Laptop or PC



## 5 Functional Modules

Each module approximately 500LOC

Total KLOC = 2.5

$E = a * (KLOC)^b$  Man in Months

$D = c * (E)^d$  Months

$a = 2.4$

$b = 1.05$

$c = 2.5$

$d = 0.38$

$$E = (2.4)(2.5)^{1.05} = 6.28 = 6 \text{ Man in Months}$$

$$D = (2.5)(6.28)^{0.38} = 5.02 \text{ Months}$$

$$\text{For Average} = E/D = 1.25$$

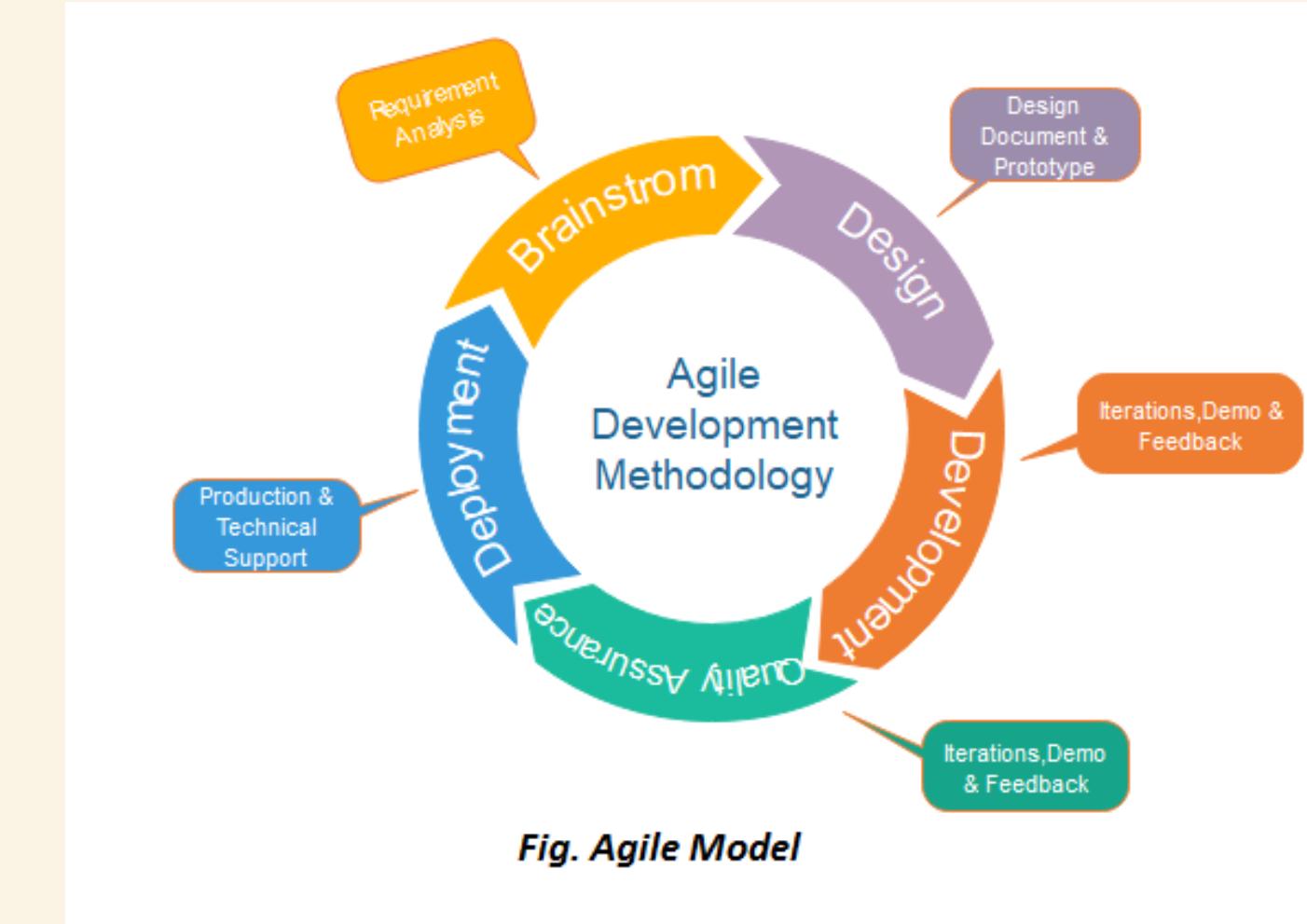
$$\text{For Productivity} = \text{KLOC}/E = 0.39 \text{ KLOC/MM}$$

## COCOMO MODEL

Software project	$a_b$	$b_b$	$c_b$	$d_b$
Organic	2.4	1.05	2.5	0.38
Semi-detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

Add a little The Constructive Cost Model is a procedural software cost estimation model developed by Barry W. Boehm. The model parameters are derived from fitting a regression formula using data from historical projects.

- REDUCES TECHNICAL DEBT
- EASILY AND QUICKLY ADAPT TO CHANGE
- USING AGILE FOR MOBILE APPLICATION DEVELOPMENT AND TESTING CREATES TOTAL ALIGNMENT AND TRANSPARENCY
- AGILE SOFTWARE DEVELOPMENT AND TEST MINIMIZE RISK
- HIGHER QUALITY PRODUCT
- PREDICTABLE DELIVERY DATES



Agile modeling is a methodology for modeling and documenting software systems based on best practices. It is a collection of values and principles, that can be applied on an software development project.



# Home Page

← → ⌛ ⌄ File | C:/Users/91798/Desktop/Projects/SEPM%20PROJECT/sepmopen.htm

AHRMS

This Application is designed to monitor heart patients or any people who need to measure the heart rate. It automatically sends an emergency call/message in case of an abnormal heart reading.

New To This lets Signup?

search  Signin

A cartoon character with brown hair and an orange sweater is standing on the right side of the page, holding a smartphone.





Login Page



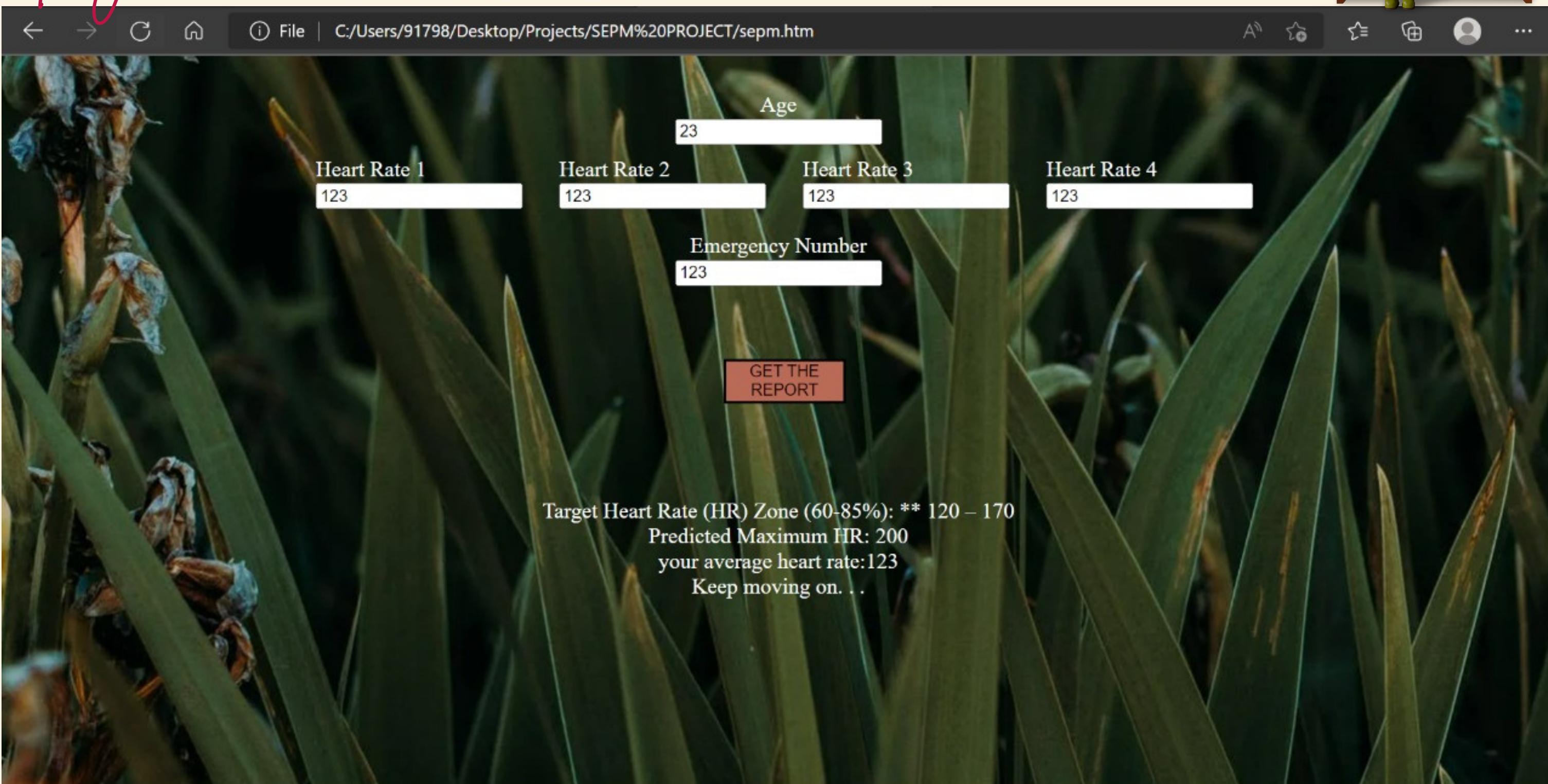
The image shows a web browser window with a registration form. The browser's address bar indicates the file path: C:/Users/91798/Desktop/Projects/SEPM%20PROJECT/sepm0.htm. The title of the page is "REGISTRATION". The form fields include:

- Name: Enter your name
- Email: Enter your Email
- Gender: Enter your Gender(M/F/O)
- Age (optional): Age
- City: No.1 ABC Street, Delhi, India
- Would you recommend this watch to a friend?
  - Definitely (radio button selected)
  - Maybe
  - Not sure
- Any comments or suggestions?  
Enter your comment here...

A "Submit" button is at the bottom of the form.



Testing



The screenshot shows a web browser window with a form overlaid on a background image of a plant. The browser's address bar shows the file path: C:/Users/91798/Desktop/Projects/SEPM%20PROJECT/sepm.htm. The form includes fields for Age (23), Heart Rate 1 (123), Heart Rate 2 (123), Heart Rate 3 (123), Heart Rate 4 (123), and Emergency Number (123). A red button labeled "GET THE REPORT" is visible. Below the form, text provides health information: "Target Heart Rate (HR) Zone (60-85%): \*\* 120 – 170", "Predicted Maximum HR: 200", "your average heart rate:123", and "Keep moving on. . .".

File | C:/Users/91798/Desktop/Projects/SEPM%20PROJECT/sepm.htm

Age  
23

Heart Rate 1  
123

Heart Rate 2  
123

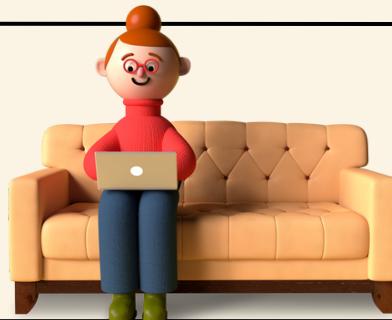
Heart Rate 3  
123

Heart Rate 4  
123

Emergency Number  
123

GET THE REPORT

Target Heart Rate (HR) Zone (60-85%): \*\* 120 – 170  
Predicted Maximum HR: 200  
your average heart rate:123  
Keep moving on. . .





### 17.1.1 Manual Testing

Testing	Input	Description	Result
Login And Sign Up	specified ids	Implementing bot and specified ids to Login and Sign up	PASS
Load Up time	Website on Local	Testing website with opening and host performing simultaneously on system	PASS
Database test	Test cases	Implementing test and verifying output	PASS
All the data Specification	Test cases	Implementing data in java Script Checking the speedof it	PASS
Attributes used	Filling form	By filling the registration Form in sign up page	PASS



## Conclusion:

**To over come these issues we have developed this website.**

**The development process for this website is characterized by the efforts made by whole team and It also requires lots hardware and software infrastructures. The hardware may include PC with core i7 processor, 16 GB RAM and Graph - icCard at least MX150, and software like HTML,CSS ,JAVA- SCRIPT Etc.**

**The integration effort Comprises not only the design and realization of interfaces, but also test of those interfaces. Themore complex the subsystem are, the more-effort is requiredfor the interface test since the necessary test drivers stubs should be equally complex.**

### 19.1.2 RESOURCES

[Wikipedia](#):For Several references on various topics.

[Geeks For Geeks](#) : For learning technical Concepts.

[W3Schools](#) For Diagram and related things.

[Engineering for Change](#)

