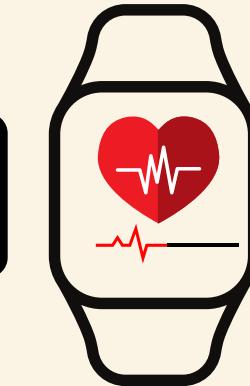




# ~~Automated Heart~~ **RATE MONITORING SYSTEM**

AHRMS

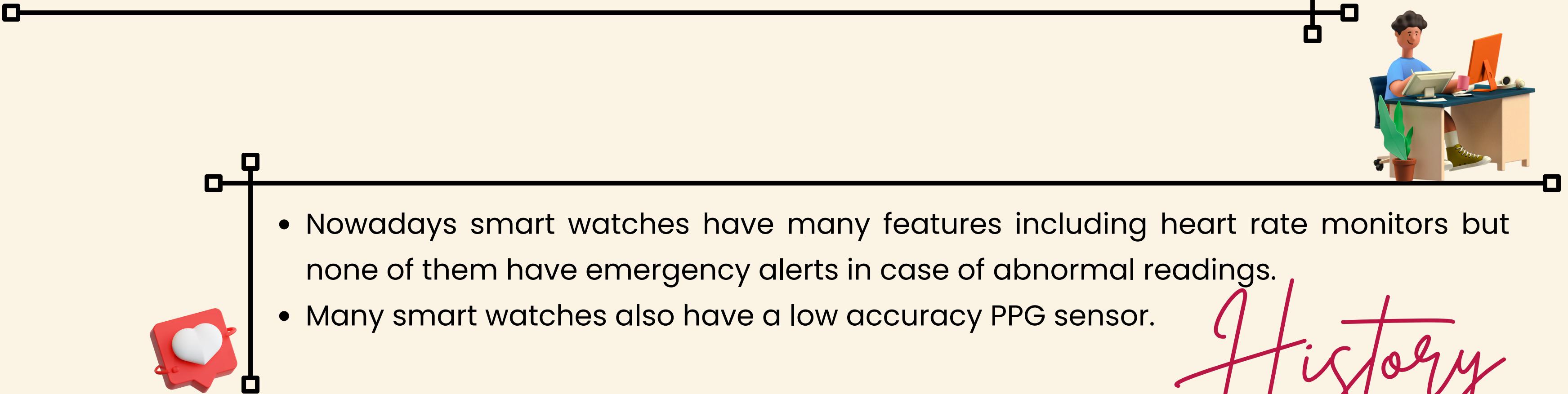


...



# 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

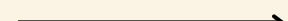


# BENEFITS

- 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



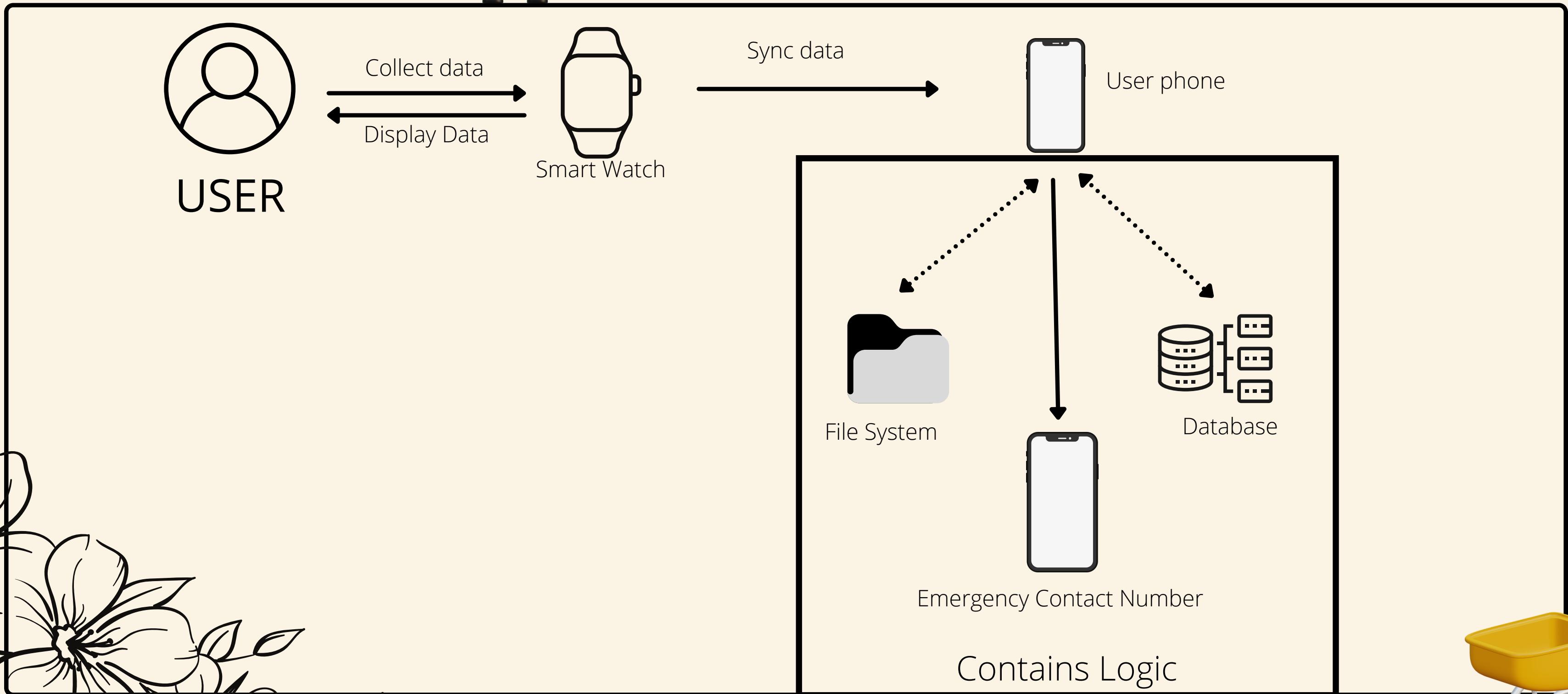
## SURVEY

- High Representativeness
- Good Statistical Significance
- Precise Results





# ARCHITECTURE DIAGRAM



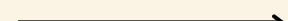
# SOFTWARE REQUIREMENTS:

- 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

$a = 2.4$

$b = 1.05$

$c = 2.5$

$d = 0.38$

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

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

For Average =  $E/D = 1.25$

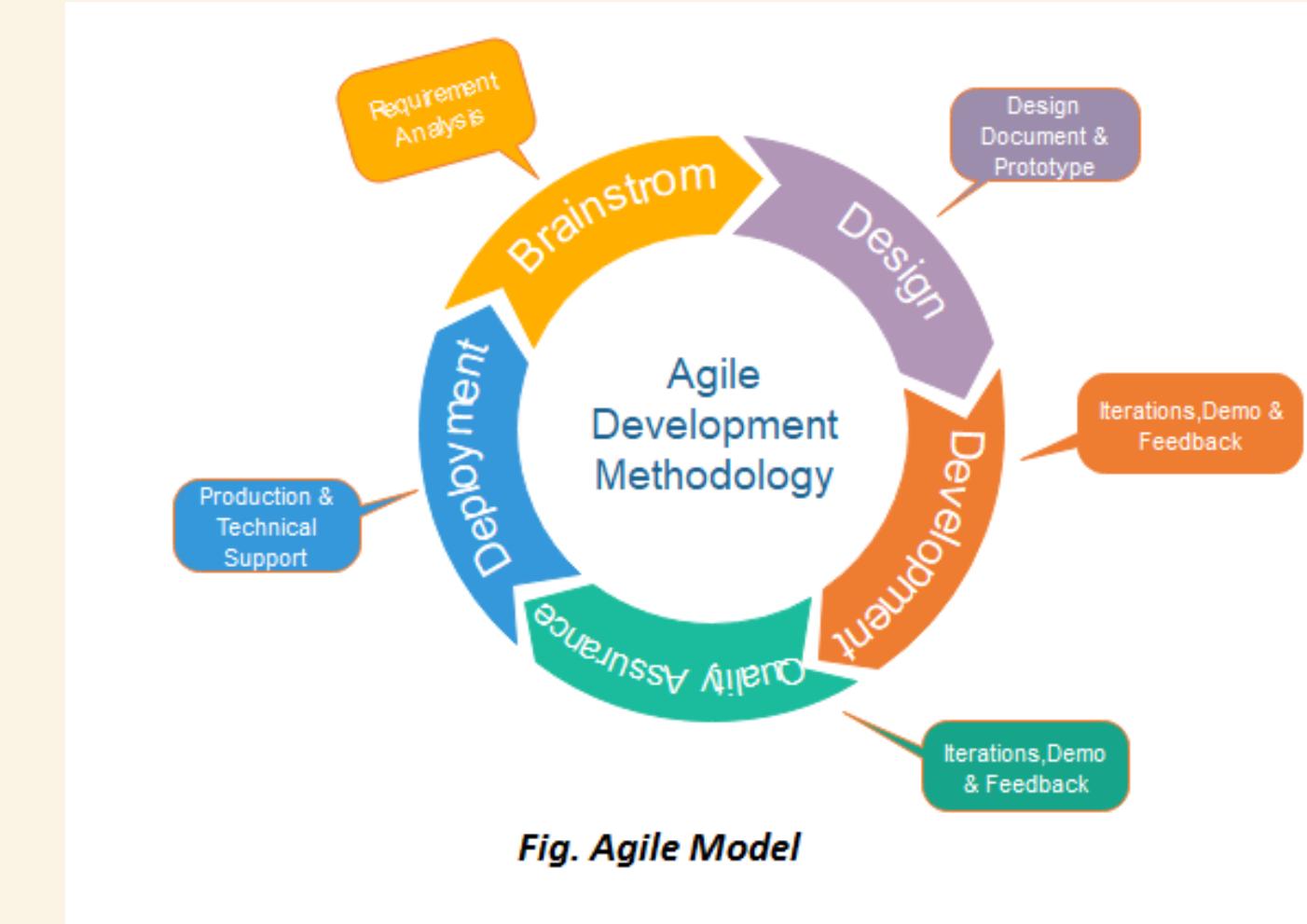
For Productivity =  $KLOC/E = 0.39 \text{ KLOC/MM}$

## 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



File | C:/Users/91798/Desktop/Projects/SEPM%20PROJECT/sepm0.htm

## REGISTRATION

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  
 Maybe  
 Not sure

Any comments or suggestions?  
Enter your comment here...

Submit



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-related 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

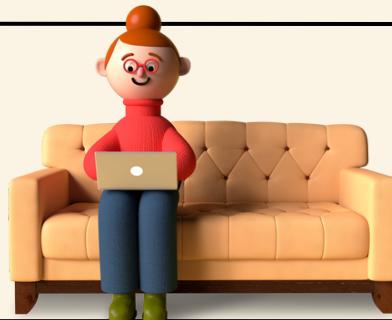
Heart Rate 3  
123

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](#)



# Team **MEMBERS**

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*Thank you*