

# **PhysioPlus**

**A PROJECT REPORT**

*Submitted by*

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*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

*in*

**Computer Engineering**



**Faculty of PG Studies**

**Marwadi Education Foundation, Rajkot**

**Gujarat Technological University, Ahmedabad**

October, 2019



**Marwadi Education Foundation, Rajkot**

**Faculty of PG Studies**

**Computer Engineering Department**

**2019-20**

**CERTIFICATE**

This is to certify that the project entitled **PhysioPlus** has been carried out by **ABHIJEET VADERA (161163107026)** under my guidance in partial fulfilment of the degree of Bachelor of Engineering in Computer Engineering (7th Semester) of Gujarat Technological University, Ahmedabad during the academic year 2019-20.

Date : \_\_\_\_\_

**Internal Guide**

Prof. Ashish Revar  
Assistant Professor

**Head of the Department**

Head of Department  
Computer Engineering



**Marwadi Education Foundation, Rajkot**

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Computer Engineering

# Acknowledgements

We would like to extend our hearty thanks with a deep sense of gratitude and respect to all those who provides us immense help and guidance during our project.

We would like to thank our Head of Department for providing a vision about the system. We have been greatly benefited from their regular critical reviews and inspiration throughout my work.

We would like to express our sincere thanks to our internal guide prof. Ashish Revar respectively, and who gave us an opportunity to undertake such a challenging and great innovative work. We are grateful to them for their guidance, encouragement, understanding and insightful support in the development process.

Last but not the least we would like to mention here that we are greatly indebted to each and everybody who has been associated with our project at any stage but whose name does not find a place in this acknowledgement.

**Yours Sincerely,**

Ritika Vagh (171163107015) Abhijeet

Vadera (161163107026) Anant

Chudasama (151160107008)

# Abstract

PhysioPlus is tool special for physiotherapy clinic that provides functions to manage patient's appointment, their medical records, financial transactions, manage doctors leaves etc.

There are 3 users- 1. Super Admin, 2. Admin (doctors), 3. Patients.

First user is patient they can request for appointment to available time slots along with doctors. They will get a response for their appointment whether approved or not. They can follow up their taken treatment, transactions, remaining treatment and its schedule. They can post their review of a doctor.

Second user id Admin who is a doctor who gets all appointments allocated to them along with the information available on patient. After the completion of the treatment they will have to fill patients evolution card (completion of treatment form).They can request for a leave in a tool to get response and acknowledgement for their respective request.

Third user is Super admin who is an authorized person/doctor who manage everything within the system. Super admin can add new treatments, remove treatment or modify the treatment. Super admin can approve or reject appointments request submitted by patient. Super admin can take action for leave application submitted by doctors. Super admin can generate reports such as financial report, patients wise report, medical history report, referral doctor wise they also manage patients evolution card, super admin can generate regular invoice or custom made invoice (based on patient requirement).End of the month, the system will automatically generate the summary chart, which is a combination of all reports, this summary chart will see and verify by admin and Super admin only.

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# **1. Introduction**

## **1.1 Document Purpose**

The purpose of this document is to give description of the requirements for the “physioPlus” Application. It will give the purpose and declaration for the development of mobile application. It will also explain application, and its functionality and its interactions with other applications and databases. This document is intended to be proposed to a customer for its reference for developing the first version. It will elaborate the purpose and features of system, the interfaces of system and what system will perform.

## **1.2 Product Scope**

“physioPlus” is an online application for physiotherapy center and physiotherapy patient. This application helps user to search available doctor and make online appointment, so need to visit physiotherapy center for appointment. Also user or patient can online communicate with their appointed doctor. Doctor can generate and manage medical report of their users or patient and updates them about their diagnosis.

To use this application user needs an internet connection. Through this application doctor and their patient can interact with each other in a much easier way. This application has the capability to manage user medical reports.

## **1.3 Intended Audience and Document Overview**

The intended audience for this document will be the users of the application or we can say patient of the physiotherapy center, doctors of the hospital, hospital staff and admin of this application.

## 1.4 Definitions, Acronyms and Abbreviations

Term	Definition
Admin	The one who manages the application and also provides regular updates.
Application	An application which provides easy way to patient of the hospital.
User	User of this application.
Doctor	Doctors of the hospital
Hospital staff	Staff of the hospital who can communicate with patients and doctors both.
Software requirement specification	A document that completely describes the features and functions of proposed system.

[Table 1.4]

## 1.4 Document Conventions

- **Main Heading:**

Font-type: Times New Roman Font-

size: 18

Font-style: Bold

- **Sub heading:**

Font-type: Times New Roman Font-

size: 14

Font-style: Bold

- **Other text explanation:**

Font-type: Times New Roman

Font-size: 12

Font-style: Normal font

- **Comments:**

Font-type: Times New Roman

Font-size: 11

Font-style: Italic

## **1.5 References and Acknowledgments**

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

Web Address Referred: <http://www.math.uaa.alaska.edu/~afkjm/cs401/IEEE830.pdf>

## **2. Overall Description**

### **2.1 Product Perspective**

The purpose of this document is to give a description of the requirements for the “physioPlus” application. It will give the purpose and declaration for the development of mobile application. This document is intended to be proposed to a customer for its reference for developing the first version. To use the application, users are required to register through their mobile number or email id. Whenever a new user is registered, all the required data will be created in the database. The main perspective of this application is that provide easy way to the patients of the physiotherapy center.

This is a data-centric application and it will need somewhere to store the data For that, a database will be used. The mobile application will use the database as well as API to get data. All of the database communication will use the Internet.

This application also provides a platform for physiotherapy patient and physiotherapy doctors to easily communicate with each other. And for doctors to generate and manage user’s medical reports and give instructions to user according to that reports.

### **2.2 Product Functionality**

Functionalities of this project.

- User module
  1. Register/Login
  2. Search for doctor
  3. View available doctors
  4. Make an appointment
  5. Communicate with doctors
  6. View their medical reports
- Doctor module
  1. Login
  2. Accept user appointment
  3. Communicate with user

4. Generate medical reports of user
- Admin module
    1. Manage doctors data
    2. Manage patients data
    3. Updation
    4. Add features on the application

## 2.3 Users and Characteristics

There will be four types of users that Interact with the application: User of the application. Doctors, Hospital staffs and Admin.

Mobile user or we can say hospital patients is the one who can make appointment online with the doctor they need also can communicate with the doctor. Doctors who diagnosis the patient and handle their medical reports also do diagnosis according to that reports. Hospital staff is can communicate with the both doctors and patients, Admin is the one who can manage all the data of doctors and patients and also provides updates.

## 2.4 Operating Environment

Operating environment for the system is:

## 2.5 Design and Implementation Constraints

Constrains regarding system:

- The Internet connection is also a constraint. The application fetches data from the database from the Internet, it is necessary to have an Internet connection for the application.
- User must have to register with their mobile number or email id to use this application.
- Only physiotherapy patient can use this application.
- This application will be developed only for the particular physiotherapy center and people of that physiotherapy center only can use this application.
- GUI will be only in English.
- Memory size are also constraints.

## **2.5 User Documentation**

This Application will be run and used on mobile phones, laptops, PCs, tablets that have enough performance and have browser support. If the your device does not have enough hardware resources available for installation, for example the users might have allocated them with other applications, there may be scenarios where the application does not work as it should be. One page description will be delivered in the Help feature which will consist of all major functions available for admin, user, and Hospital regarding the application and its features both along with their usage and explanation.

## **2.6 Assumptions and Dependencies**

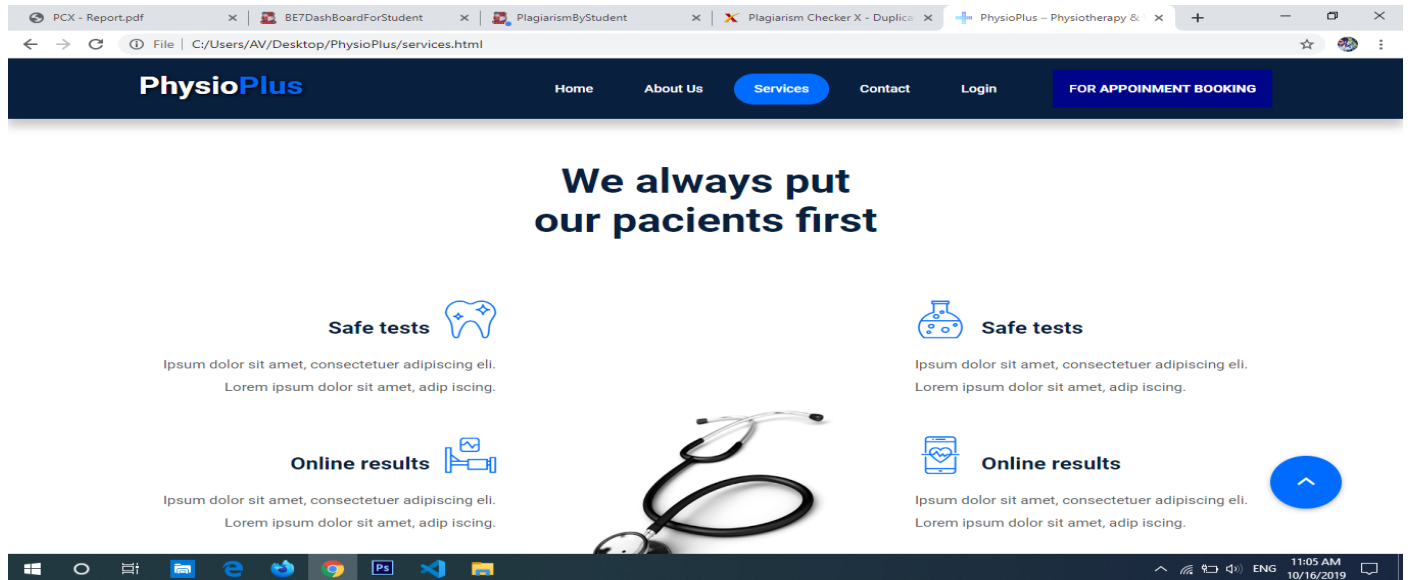
The assumption is all the admins (doctors) will generate patient card of all the patient by end of that day only and send it to super admin. But sometimes it is not possible because of admins might have some emergency or might be they will forgot to do it. So, in that case super admin must have to send reminder to them for complete their task so, super admin can verify and manage it.



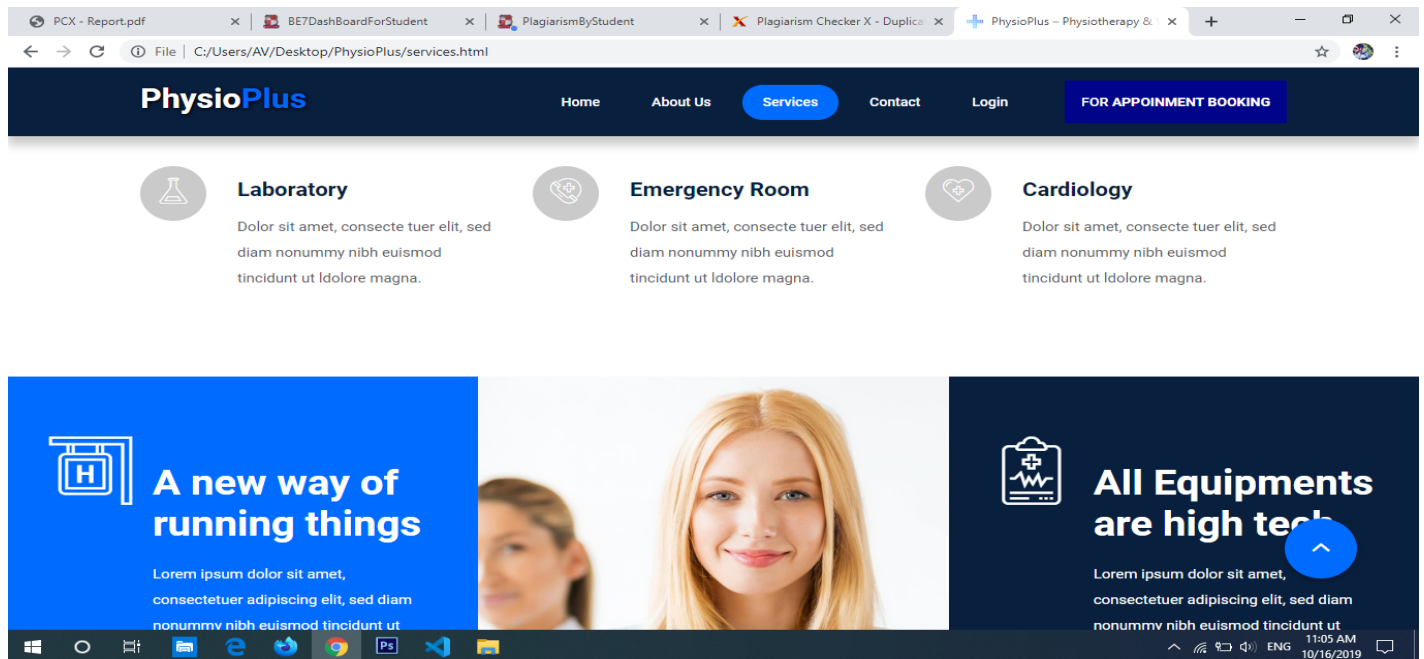
## 3. Specific Requirements

### 3.1 External Interface Requirements

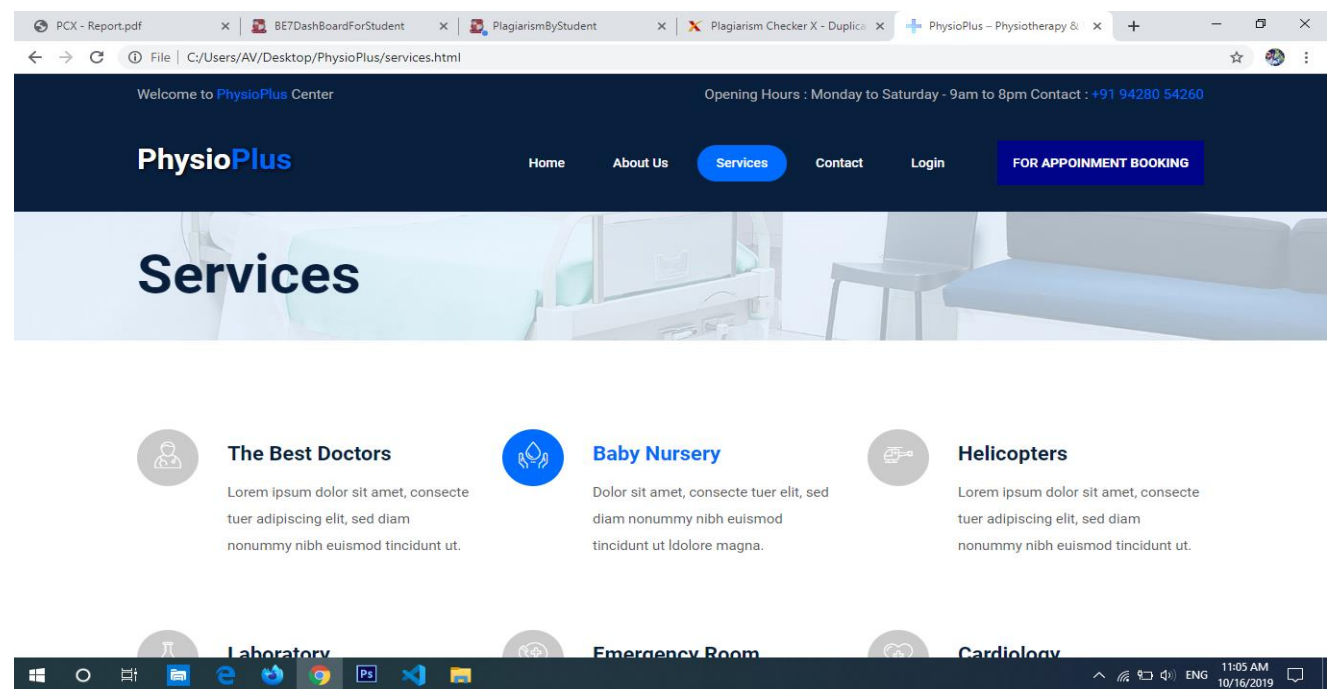
#### 3.1.1 User Interfaces



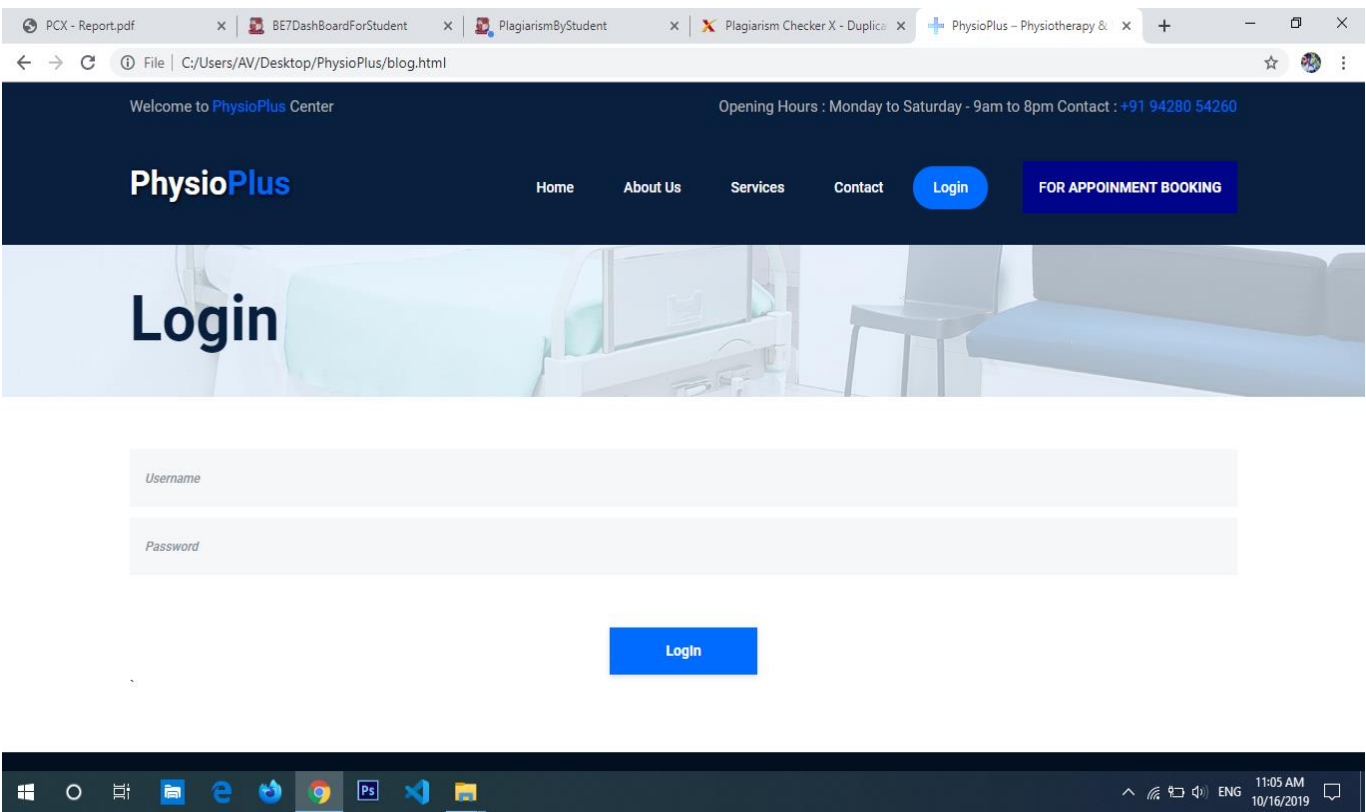
[Figure 3.1.1.1 services]



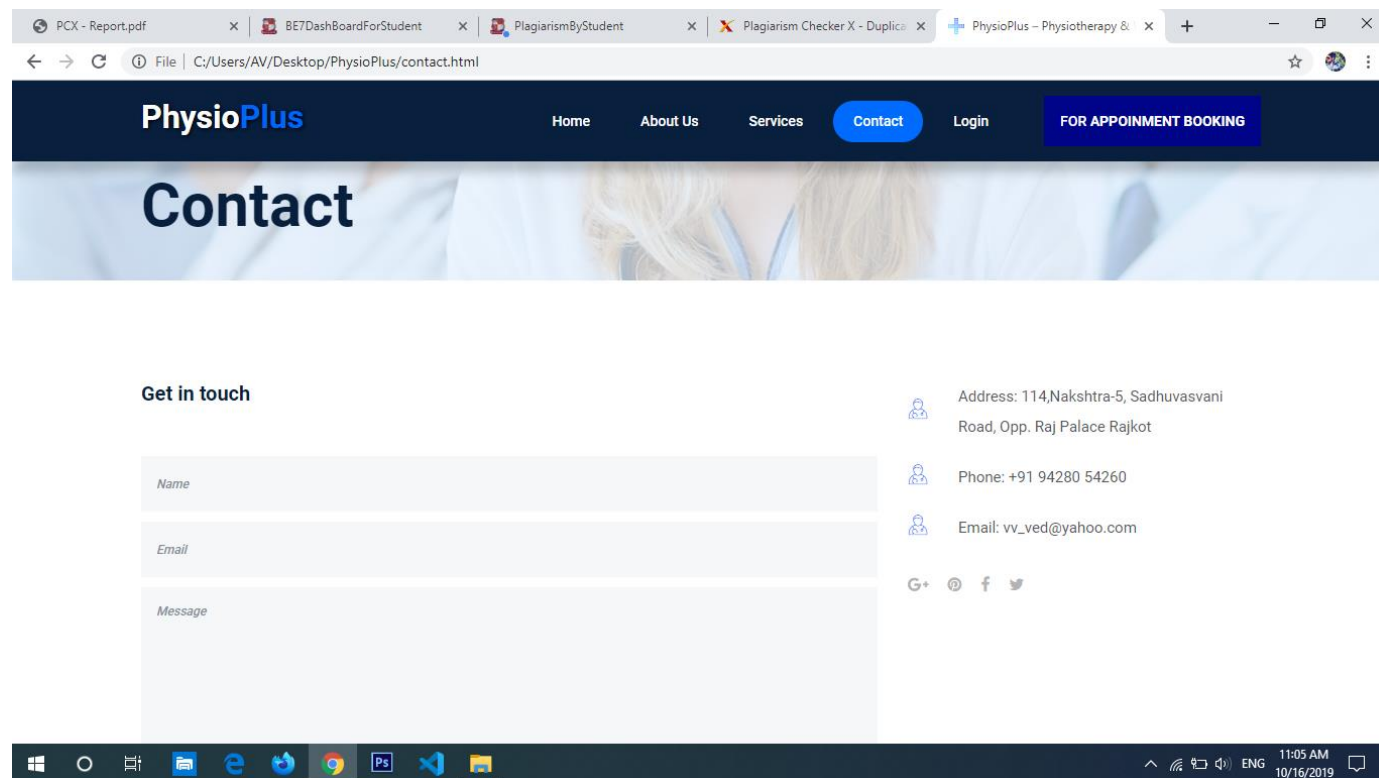
[Figure 3.1.1.2 services]



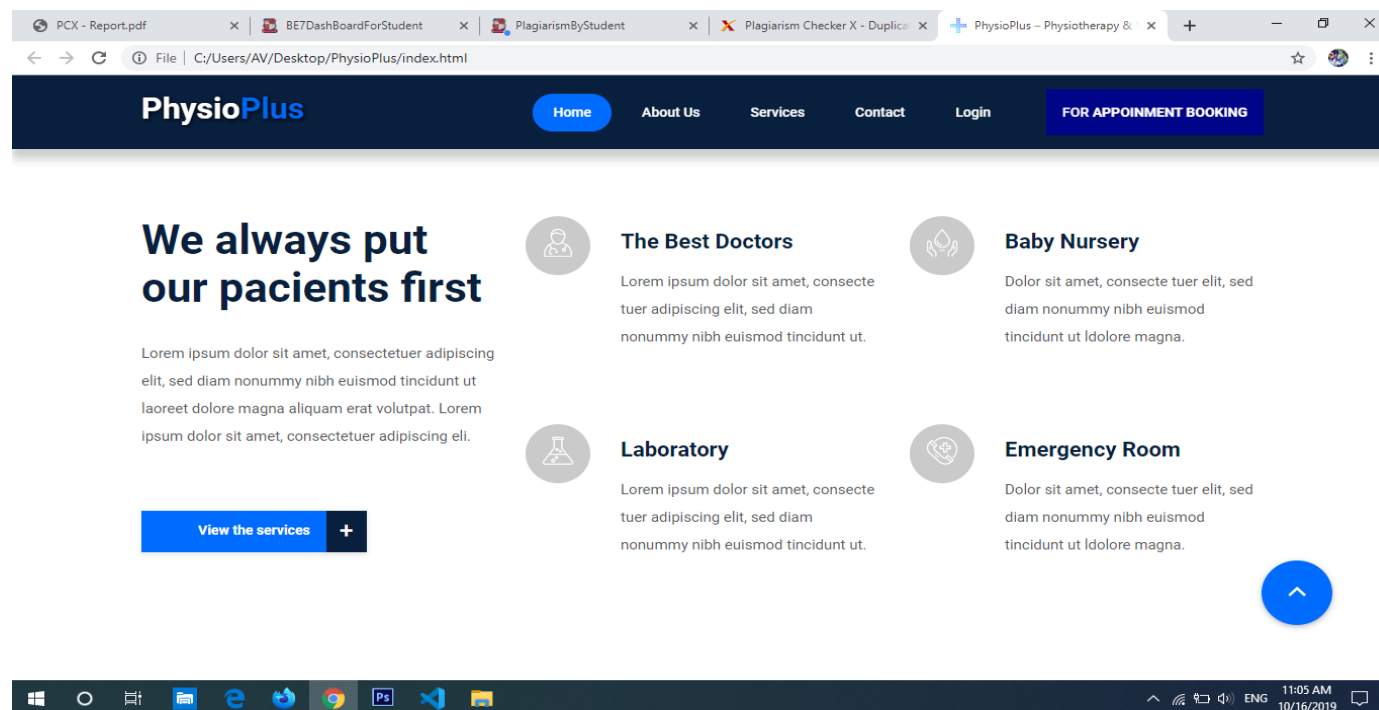
[Figure 3.1.1.3 services]



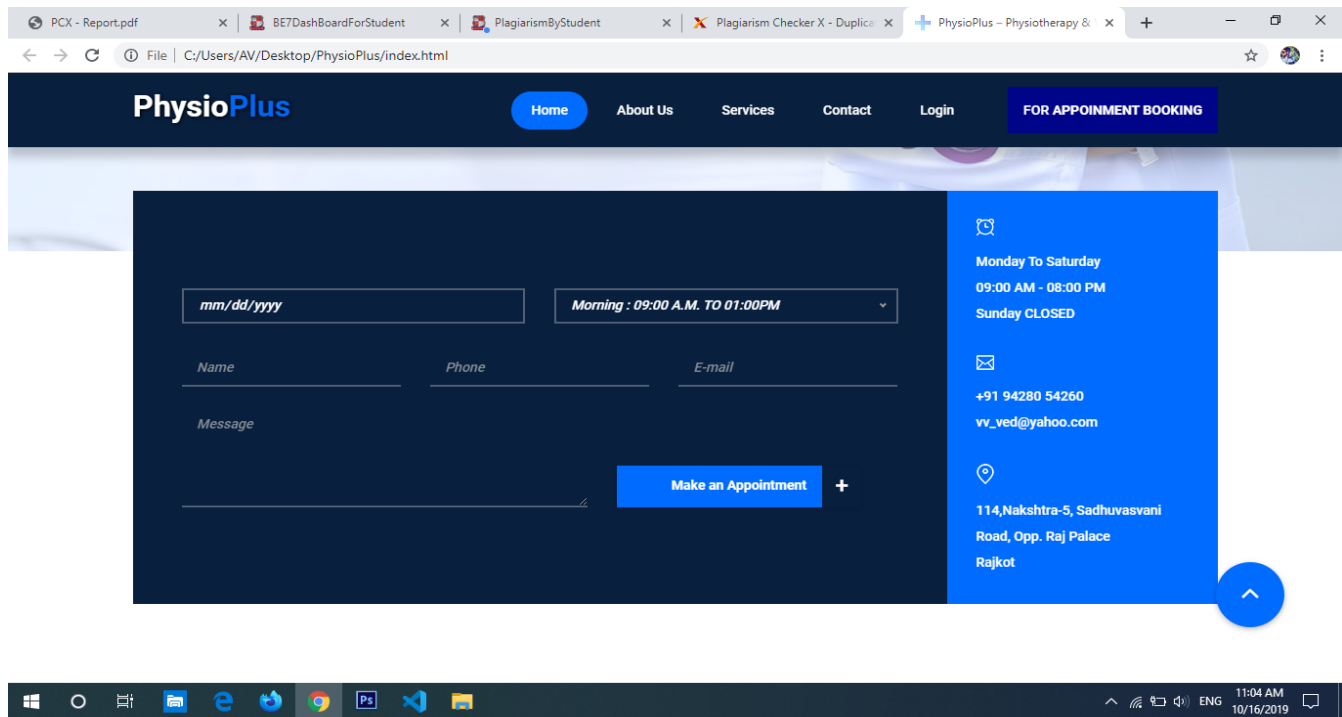
[Figure 3.1.1.4 login]



[Figure 3.1.1.5 contact]



[Figure 3.1.1.6 home]



[Figure 3.1.1.7 appointment]

### 3.1.2 Hardware Interfaces

Our web application requires laptop or mobile device in which our application will run on. And for the scanning of the documents it requires the scanner machine as the hardware, and for printing the documents and for invoices, application requires printer machine as a hardware.

### 3.1.3 Software Interfaces

Our web application requires supported browser to efficiently run our application, and to view the documents or invoice, requires the pdf viewer or document viewer as a software. It also requires appropriate drivers for printer and scanner machine but it is already available in operating system. So, we doesn't requires any third party software.

### 3.1.4 Communications Interfaces

We are going to use:

HTTPs protocol:-for secure data transfer.

FTP protocol:-for the transfer files from server to client machine.

SMTP protocol:-for communicate to user over mail system.

SMPP protocol:-for send the important message through SMS (Short Message Service).

## 3.2 Functional Requirements

Functional requirements specifies the activities and Services provided by the system.

### 3.2.1. User

- **Download mobile application**

A user should be able to download the mobile application through play store. The application should be free to download.

- **User Registration**

After downloading the application, the user should be able to register. The user needs to provide password, Mobile Number, Email-address, Name.

- **User Login**

After user has registered, user should be able to log in to the mobile application. The information will be stored on the phone.

- **User Profile**

After user has registered, user should be able to view his profile in the mobile application. This will include his/her donation history, feedback, help, Blood donation requests etc.

- **Search for doctor**

User can search for suitable doctor they need for their diagnosis. Also can see which doctor is available.

- **Make an appointment**

After user will find the doctor they need for their diagnosis, they can make request for their appointment.

- **View medical report**

Doctor can generate medical report of the user and the user can online view their medical report and take advice from the doctor.

- **Give feedback**

User can also provide rating for the application.

### 3.2.2. Doctor

- **Give appointment approval to user**

Doctor can approve the medical appointment which is requested by the user and can give the user a time slot for meeting.

- **Generate medical report of the user**

Doctor can generate and manage the medical report of their patient and give medical advice to the patient according to their medical report.

- **Notify user**

Doctor can notify the user when there is any change in time of the meeting, also notify when there will be any updation in their report, also can give medical advice to the user.

### 3.2.3. Admin

- **Admin login**  
Admin should be able to login in order to administrator the login
- **Updates the Application**  
Admin manages the application and provides updates and also maintenance.
- **Manages users, doctors**  
Admin will be able to manage the doctors and users of the application.

## 3.3 Behaviour Requirements

### 3.3.1 Use Case View



[figure 3.3.1.]

## **4. Other Non-functional Requirements**

### **4.1 Performance Requirements**

The requirements in this section provide a specification of the user interaction with the software placed on the system performance.

#### **4.1.1. Prominent search feature**

The search feature should be proper and easy to find whatever the user searches.

#### **4.1.2. Response time**

Fastness of search

#### **4.1.3. System dependency**

Fault tolerance of the system.

If the system loses the Internet connection or to the GPS device or the system gets some strange input, the user should be informed.

#### **4.1.4. Availability**

The system should be available at all times, meaning the user can access it using application.

#### **4.1.5. Performance**

The system is interactive and the delays involved are less.

#### **4.1.6. Reliability**

The application should provide correct and accurate results.

### **4.2 Safety and Security Requirements**

Security and Safety of any system are major aspect while making any software.

#### **4.2.1. Authentication**

System should be used only by authenticate users.

#### **4.2.2. Communication security**

Security of communication between server and the client. Communication should be secure with end-to-end encryption.

#### **4.2.3. Data security**

Data of the user and patient should be secure and only known to themselves. For example medical report of any patient is only known to that patient and doctor they appointed.

### **4.3 Software Quality Attributes**

Quality attributes of any system are basically to provide justification for that system.

#### **4.3.1. Accurate**

Accuracy of the user search should be maintained.

#### **4.3.2. Speed and responsiveness**

Execution of the system should be fast and responsive as compared to current existing system.

#### **4.3.3. Usability**

The system should be easy to operate and understand for any user.

#### **4.3.4. Maintainability**

System should be able to fix any problem occur suddenly.

#### **4.3.5. Internet Connection**

The application should be connected to internet.

#### **4.3.6. Portability**

The application should be portable with Android.

#### **4.3.7. Maintainability**

The application should be easy to extend.

The code should be written in a way that it favors implementation of new functions.

#### **4.3.8. Testability**

Test environments should be built for the application to allow testing of the applications different functions.



## Appendix A – Design Engineering Canvas

### A.1. AEIOU Canvases



#### A.1.1. Activity Canvas:

##### Activities

GROUP ID: **58649**PROJECT ON: **physioPlus**

DATE: \_\_\_\_\_

SHEET NO. **1**

<p>General impressions / Observations</p> <div style="display: flex; flex-wrap: wrap;"> <div style="background-color: yellow; padding: 5px; margin: 5px;">Diagnosis</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Payment</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Interaction</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Registre/Login</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Make appointment</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Search for available doctor</div> </div>	<p>Sketch/ Photo – Summary of activities</p>  
<p>Elements, Features and Special Notes</p> <div style="display: flex; flex-wrap: wrap;"> <div style="background-color: lightgreen; padding: 5px; margin: 5px;">Mobile/Laptop/PC</div> <div style="background-color: lightgreen; padding: 5px; margin: 5px;">Internet connection</div> <div style="background-color: lightgreen; padding: 5px; margin: 5px;">Tollfree service</div> <div style="background-color: lightgreen; padding: 5px; margin: 5px;">Credit/Debit card</div> <div style="background-color: lightgreen; padding: 5px; margin: 5px;">Notes on project</div> </div>	

[Figure A.1.1]



#### A.1.2. Environment Canvas:

##### Environment

GROUP ID: **58649**PROJECT ON: **physioPlus**

DATE: \_\_\_\_\_

SHEET NO. **2**



<p>General impressions / Observations (Style, materials &amp; atmosphere)</p> <div style="display: flex; flex-wrap: wrap;"> <div style="background-color: magenta; padding: 5px; margin: 5px;">Discipline</div> <div style="background-color: magenta; padding: 5px; margin: 5px;">Exited</div> <div style="background-color: magenta; padding: 5px; margin: 5px;">Tensed</div> <div style="background-color: magenta; padding: 5px; margin: 5px;">Crowdy</div> <div style="background-color: magenta; padding: 5px; margin: 5px;">Happy</div> <div style="background-color: magenta; padding: 5px; margin: 5px;">Emotional</div> </div>	<p>Floor plan</p> 
<p>Elements, Features and Special Notes</p> <div style="display: flex; flex-wrap: wrap;"> <div style="background-color: yellow; padding: 5px; margin: 5px;">Analysis on project</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Tollfree service</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Online payment</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Mobile/Laptop/PC</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">Internet connection</div> </div>	<p>Scene</p> 

[Figure A.1.2.]

**A.1.3. Interaction Canvas:****Interaction**GROUP ID: 58649PROJECT ON: physioPlus

DATE: \_\_\_\_\_

SHEET NO. 3



<p>General Impressions / Observations (Who is interacting with whom, what?)</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">Doctor discuss with patient</div> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">nurse discuss with doctor</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">doctor interact with other doctors</div> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">nurse discuss with doctor</div> </div>	<p>Scene of interaction (How it is being done)</p> 
<p>Elements, Features and Special Notes</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; background-color: lightgreen; padding: 5px; text-align: center;">Internet connection</div> <div style="border: 1px solid black; background-color: lightgreen; padding: 5px; text-align: center;">written notes on project</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; background-color: lightgreen; padding: 5px; text-align: center;">Online payment</div> <div style="border: 1px solid black; background-color: lightgreen; padding: 5px; text-align: center;">Internet connection</div> </div>	

[Figure A.1.3.]

**A.1.4. Object Canvas:****Objects**GROUP ID: 58649PROJECT ON: physioPlus

DATE: \_\_\_\_\_

SHEET NO. 4

<p>General Impressions / Observations (How components are involved?)</p> <div style="display: grid; grid-template-columns: 1fr 1fr 1fr; gap: 10px;"> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Ambulance</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Patient report</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Ultrasound</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Medicine</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Electrical simulation</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Treatment tables</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Injection</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Stretcher</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">Exercise bike</div> </div>	<p>Inventory of Key Objects (Prepare a list here of 'THE THINGS' involved)</p> 
<p>Elements, Features and Special Notes (How objects are relating to the activities?)</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">Internet connection</div> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">Bill payment</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">written report notes</div> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">Tollfree service</div> </div>	

[Figure A.1.4.]

## A.1.5. User Canvas:

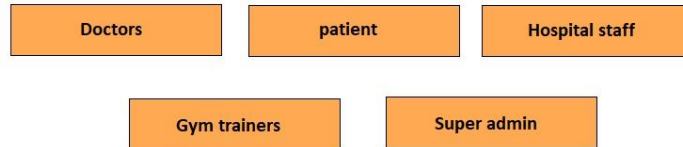
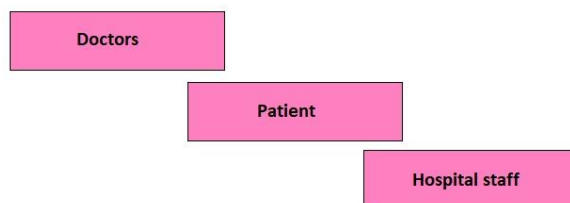
## Users

GROUP ID: 58649

PROJECT ON: physioPlus

DATE: \_\_\_\_\_

SHEET NO. 5

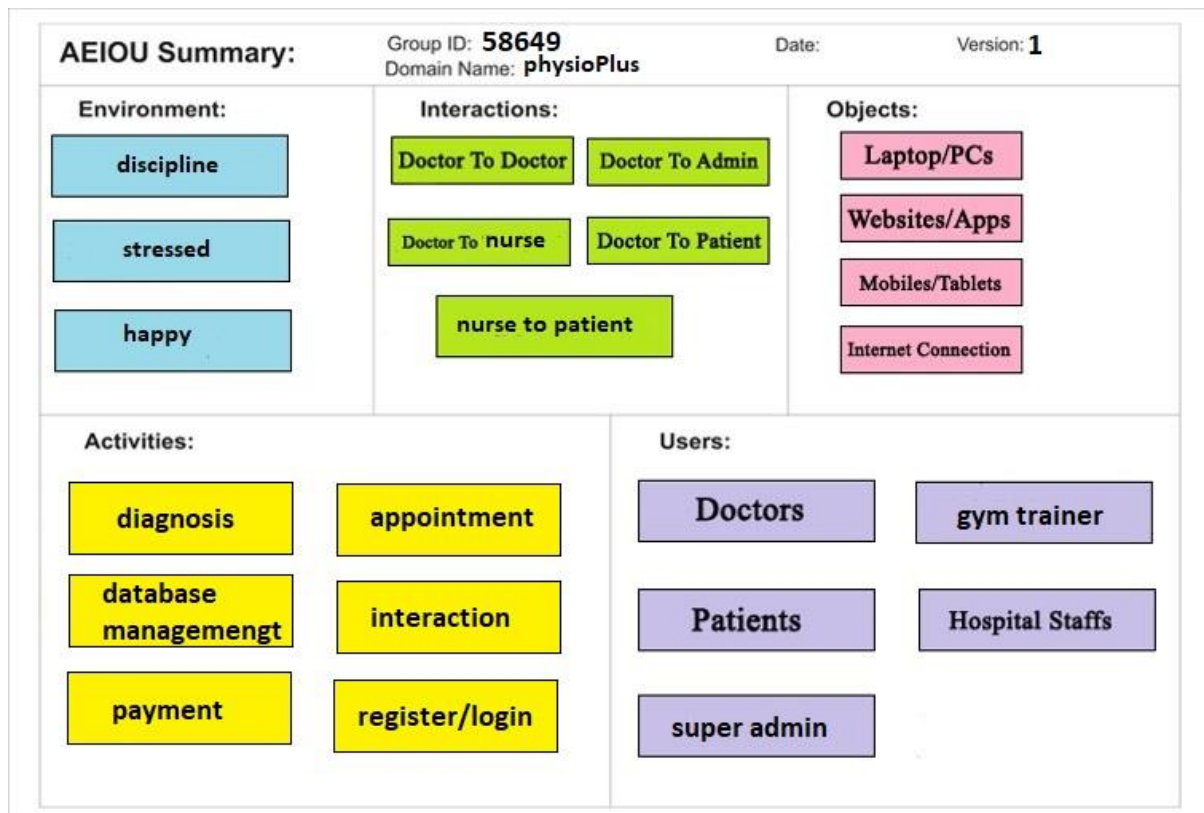
General impressions of people  
(Who is present? Roles & responsibilities?)Inventory of people  
(List of identified people involved)

Scene of users in context



[Figure A.1.5.]

## A.2. AEIOU Summary Canvas:



[Figure A.2.]

### A.3. Empathy Canvas:

<b>Design For</b> PhysioPlus	<b>Design By</b> 58649
<b>Date</b>	<b>Version</b> 1

<b>USER</b> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="background-color: yellow; padding: 5px; margin: 5px;">Doctor</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">patient</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">hospital staff</div> <div style="background-color: yellow; padding: 5px; margin: 5px;">super admin</div> </div>	<b>STAKEHOLDERS</b> <div style="background-color: lightgreen; padding: 10px; margin-top: 10px; text-align: center;">hospital owner</div>
---	--

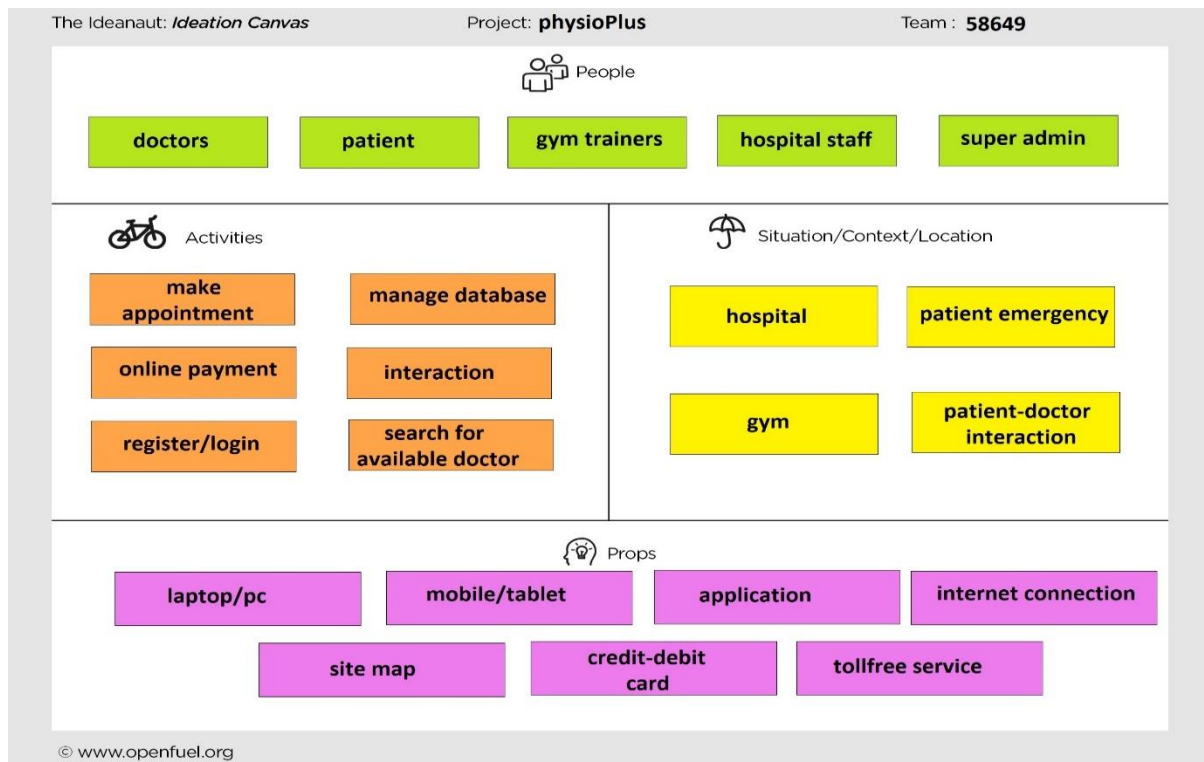
<b>ACTIVITIES</b>			
daignosis	payment	interaction	register/login
make appointment	manage database	analysis	request-response

<b>STORY BOARDING</b>
<b>HAPPY</b> _____ while we visited a hospital the family members of some patients were happy because the treatment was begins successful and health of patient is about to recover.
<b>HAPPY</b> _____ During the visit we saw the that doctor was feeling happy because their efforts were worked and recognized by the hospital and patient.
<b>SAD</b> _____ At the hospital we saw some patient were unhappy because for them it is very hard to recover themselves.
<b>SAD</b> _____ Doctors were disappointed because sometimes it is hard for them to discuss and interact with their patient.

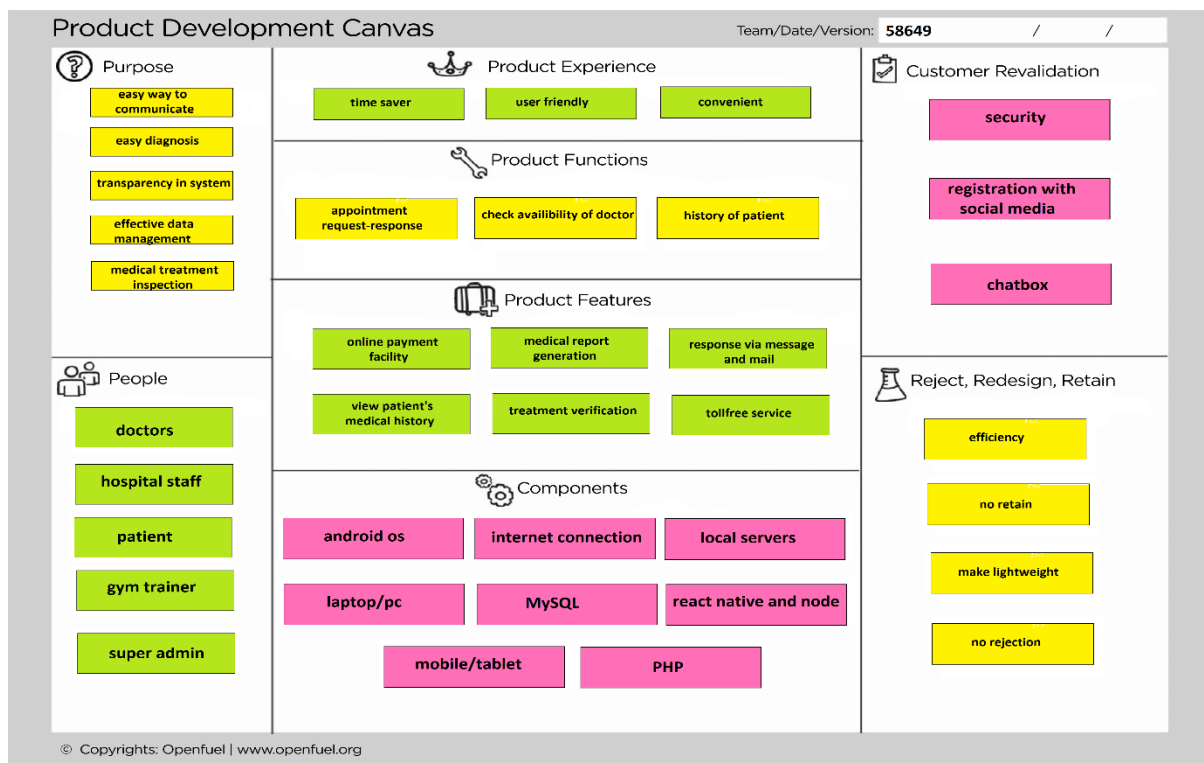
[Figure A.3.]

### A.4. Ideation Canvas:



[Figure A.4.]

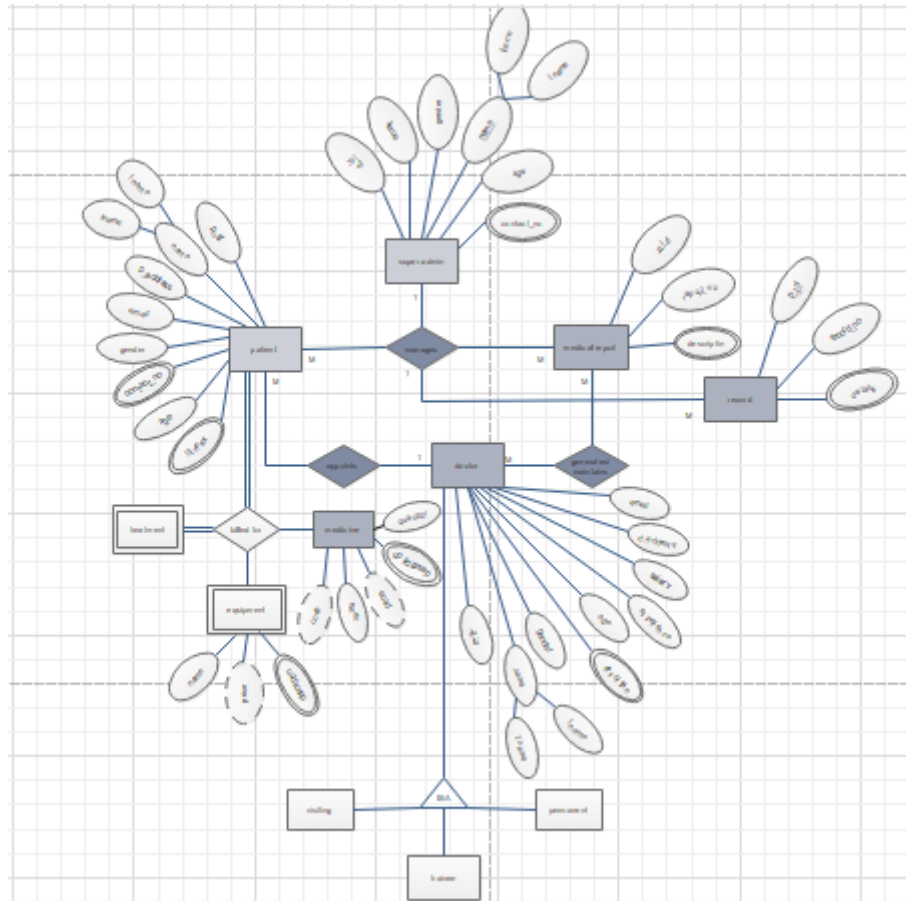
### A.5. PDC Canvas



[Figure A.5.]

## Appendix B - System Design

## 1. E-R diagram



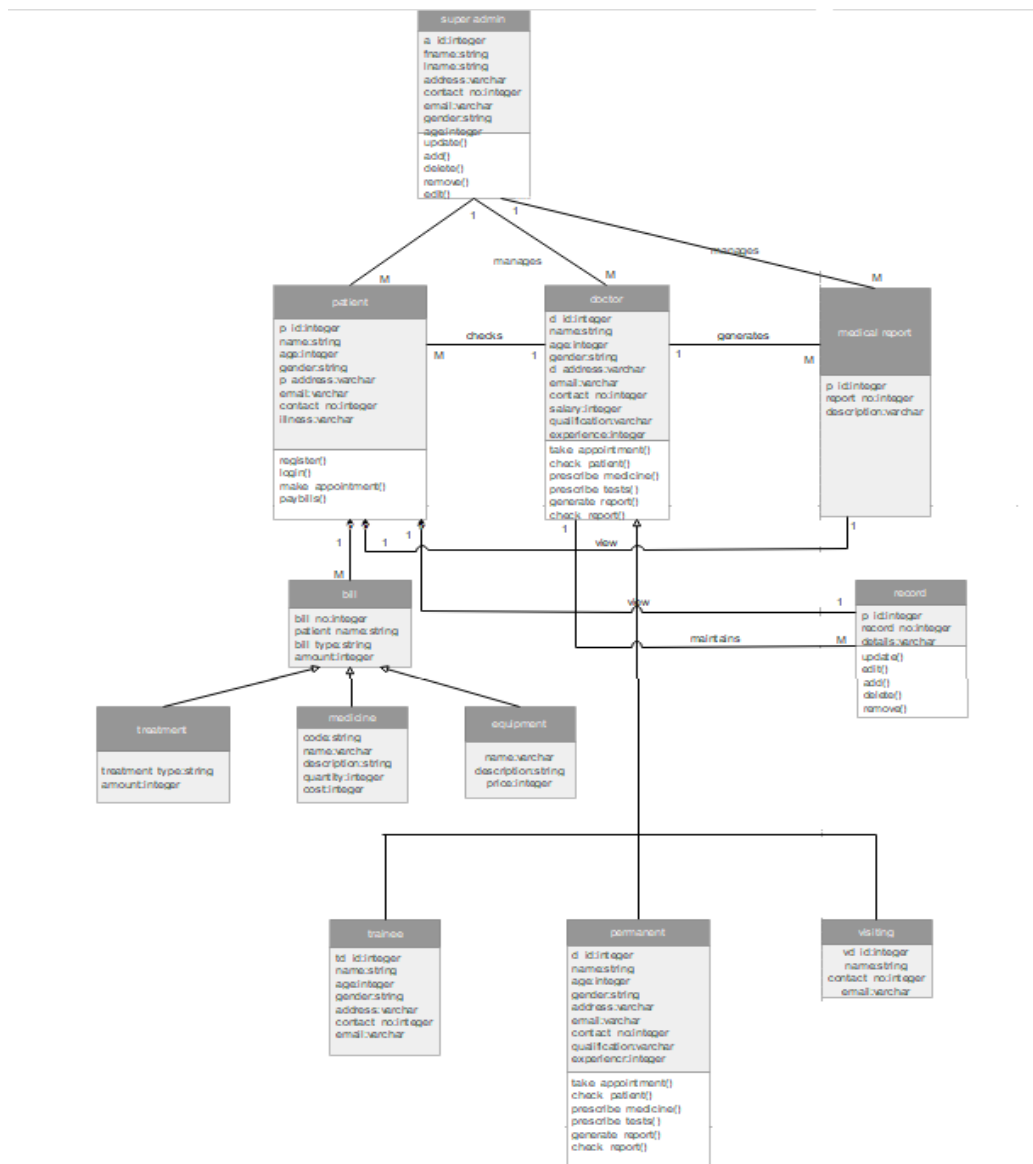
[Figure B.1]

## 2. Use case diagram



[Figure B.2]

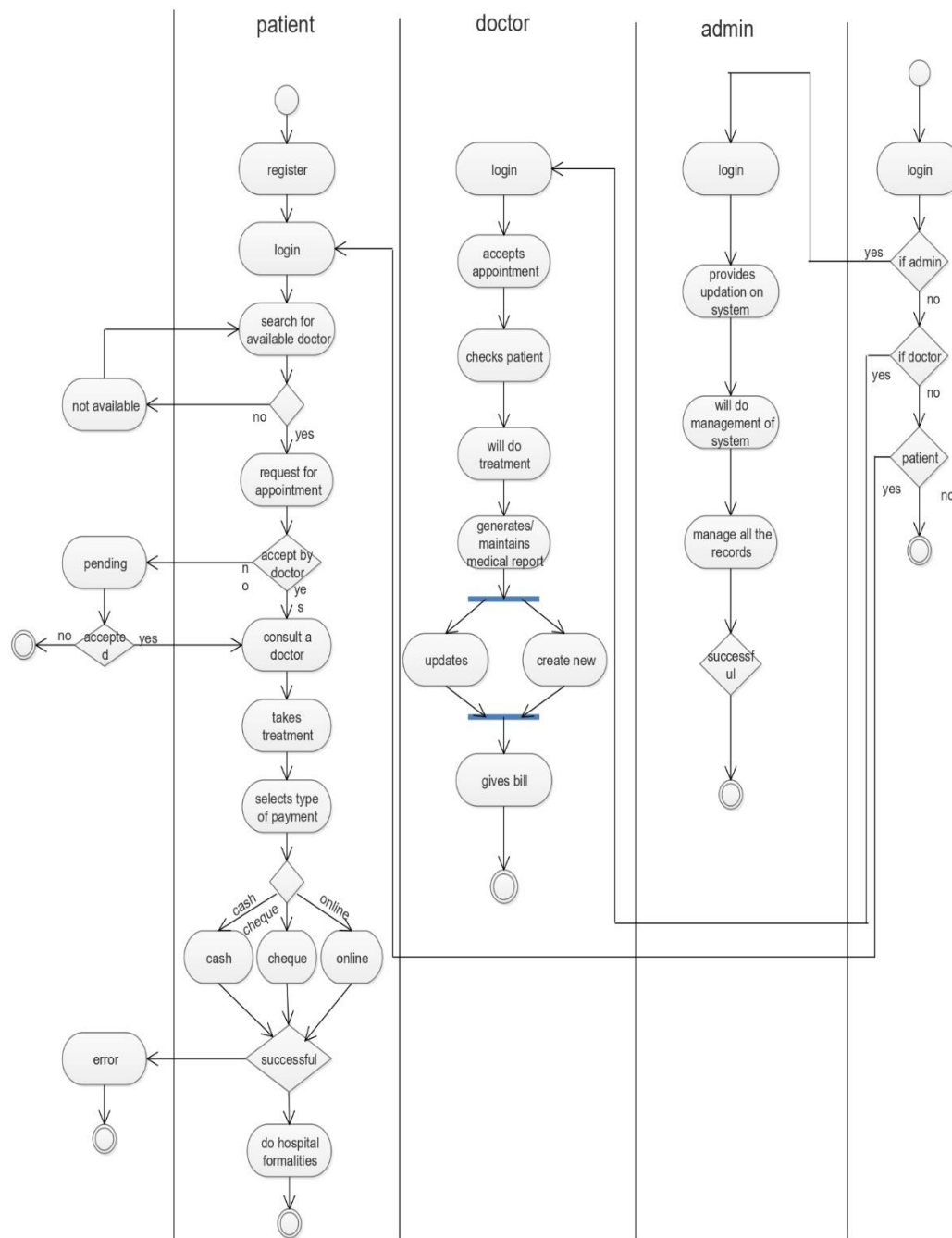
### 3. Class diagram



[Figure B.2]

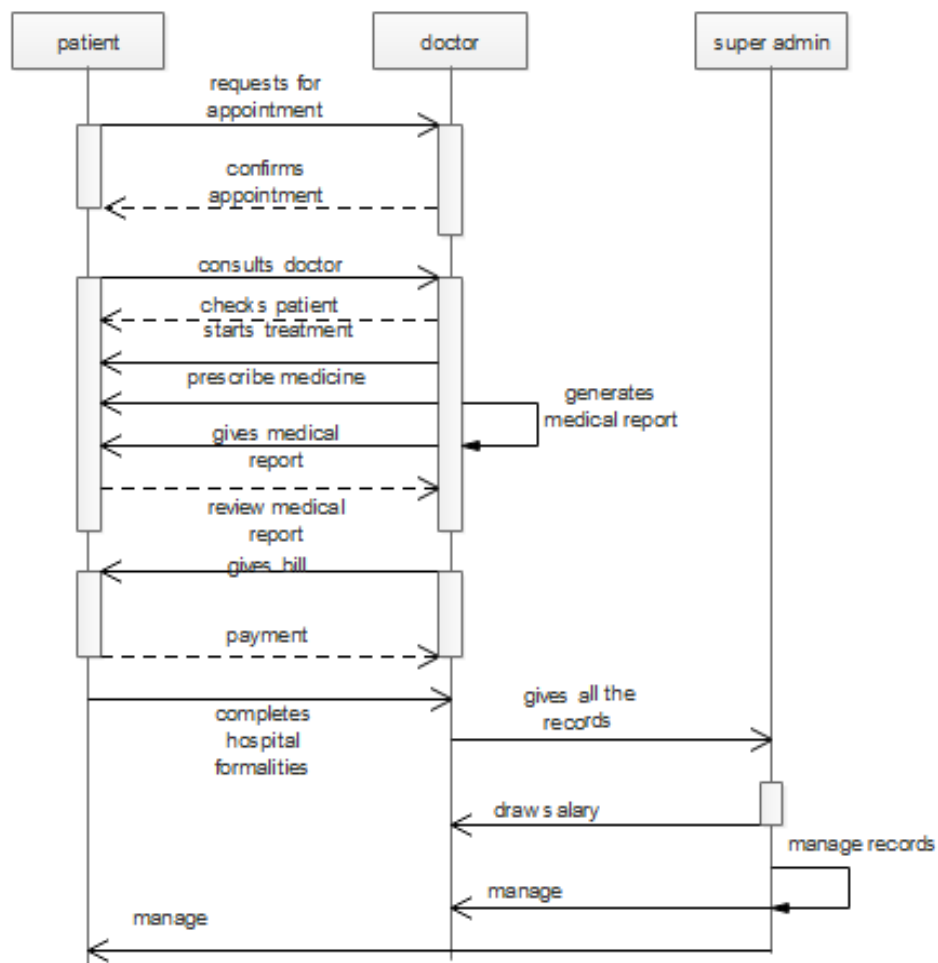


## 4. Activity diagram



[Figure B.4]

## 5. Sequence diagram



[Figure B.5]

## Appendix C – Data Dictionary

### Login

```
ID: {  
    Type: Number,  
    Required: true  
},  
Username: {  
    Type: String,  
    Required: true  
},  
Password: {  
    Type: String,  
    Required: true  
}
```

### Register

```
ID: {  
    Type: Number,  
    Required: true  
},  
Username: {  
    Type: String,  
    Required: true  
},  
Password: {  
    Type: String,  
    Required: true  
},  
Repeat_Password: {  
    Type: String,  
    Required: true  
}
```

### Patient

```
P_ID: {  
    Type: Number,  
    Required: true  
},  
P_name: {
```

```
        Type: String,
        Required: true
    },
    P_mob_no: {
        Type: Number,
        Required: true
    },
    P_email: {
        Type: String,
        Required: true
    },
    P_age: {
        Type: Number,
        Required: true
    },
    P_email: {
        Type: String,
        Required: true
    },
    P_address: {
        Type: String,
        Required: true
    },
    T_ID: {
        Type: String,
        Required: true
    },
    D_ID: {
        Type: String,
        Required: true
    }
}
```

## Doctor

```
D_ID: {
    Type: Number,
    Required: true
},
D_name: {
    Type: String,
    Required: true
},
D_specialization: {
    Type: String,
```

```
        Required: true
    },
    D_email: {
        Type: String,
        Required: true
    },
    D_mob_no: {
        Type: Number,
        Required: true
    },
    T_ID: {
        Type: Number,
        Required: true
    }
}
```

### **Super\_admin**

```
    S_ID: {
        Type: Number,
        Required: true
    },
    S_name: {
        Type: String,
        Required: true
    },
    S_password: {
        Type: String,
        Required: true
    },
    S_email: {
        Type: String,
        Required: true
    }
    S_mob_no: {
        Type: Number,
        Required: true
    }
}
```

### **Therapy**

```
    T_ID: {
        Type: Number,
        Required: true
    },
    T_name: {
```

```
        Type: String,
        Required: true
    },
    T_date: {
        Type: Date,
        Required: true
        Default: Date.now()
    },
    T_time: {
        Type: Number,
        Required: true
    },
    T_amount: {
        Type: Number,
        Required: true
    },
    T_given_by: {
        Type: String,
        Required: true
    },
    D_ID: {
        Type: Number,
        Required: true
    }
}
```

## **Report\_Card**

```
R_ID: {
    Type: Number,
    Required: true
},
P_ID: {
    Type: Number,
    Required: true
},
D_ID: {
    Type: Number,
    Required: true
},
T_ID: {
    Type: Number,
    Required: true
},
S_ID: {
```

```
        Type: Number,  
        Required: true  
    }  
}
```

## Appointment

```
A_ID: {  
    Type: Number,  
    Required: true  
},  
A_Date: {  
    Type: String,  
    Required: true,  
    Default: Date.now()  
},  
A_Time: {  
    Type: Number,  
    Required: true  
},  
A_Status: {  
    Type: String,  
    Required: true  
},  
A_therapy_for: {  
    Type: String,  
    Required: true  
},  
P_ID: {  
    Type: Number,  
    Required: true  
}
```

## Appendix D – Periodic Progress Reports

### D.1 First PPR

**PPR Details**

**Periodic Progress Report : First PPR**

**Project :** Physio Plus - Physiotherapy & Wellness Center ERP With Mobile Application

**Status :** Submitted

**1. What Progress you have made in the Project ?**  
For first we are looking for good domain for project. Takes suggestion from different persons for project selection.

**2. What challenge you have faced ?**  
When we are searching for different domain projects election we realized that finding a good domain is not easy .

**3. What support you need ?**  
We need a good guidance for choose project domain.

**4. Which literature you have referred ?**  
Till now we are searching through different websites for our domain.

**Document :** Download

**Comments**

**Comment by Internal Guide :**  
None

**Comment by External Guide :**  
None

**Comment by HOD :**  
None

**Comment by Principal :**  
None

**Comment by University Admin :**  
None

[Figure D.1]



## D.2 Second PPR

### PPR Details

Periodic Progress Report : Second PPR

Project : Physio Plus - Physiotherapy & Wellness Center ERP With Mobile Application

Status : Submitted

**1. What Progress you have made in the Project ?**

For domain selection we gone through shodhyatra and visited different companies and discussed with them that what kind of help they are need from us.

**2. What challenge you have faced ?**

To choose any one particular domain from different domains is difficult for us.

**3. What support you need ?**

good guidance for choosing project domain.

**4. Which literature you have referred ?**

Till we are discussed with different company people and taken their suggestions.

Document : Download

### Comments

**Comment by Internal Guide :**

None

**Comment by External Guide :**

None

**Comment by HOD :**

None

**Comment by Principal :**

None

**Comment by University Admin :**

None

[Figure D.2]

## D.3 Third PPR 3

### PPR Details

Periodic Progress Report : Third PPR

Project : Physio Plus - Physiotherapy & Wellness Center ERP With Mobile Application

Status : Submitted

**1. What Progress you have made in the Project ?**

After choosing a particular domain for our project we are discussed in a deep with one particular person about our project that what kind of features, functions they are looking for.

**2. What challenge you have faced ?**

We find that sometimes a requirement of client is not clearly defined so we need more ideas about project development.

**3. What support you need ?**

We need support from our client for making our project good and efficient as much as possible.

**4. Which literature you have referred ?**

As we discussed with our client we are surfing from different related websites and mobile application so we can get more ideas.

Document : [Download](#)

### Comments

**Comment by Internal Guide :**

None

**Comment by External Guide :**

None

**Comment by HOD :**

None

**Comment by Principal :**

None

**Comment by University Admin :**

None

[Figure D.3]

## D.4 Forth PPR 4

### PPR Details

Periodic Progress Report : Forth PPR

Project : Physio Plus - Physiotherapy & Wellness Center ERP With Mobile Application

Status : Submitted

**1. What Progress you have made in the Project ?**

We are started making documents about our project in which we defines clear and efficient information about our project. We have defined what what functions and features has included in our project and we done requirements and analysis of our project also started working on different design process of our domain.

**2. What challenge you have faced ?**

Challenges we are facing is that how we can design, document our project efficiently.

**3. What support you need ?**

Continuous client interaction and more and more suggestion from guide .

**4. Which literature you have referred ?**

We have referred different kind of reference books like Head First Android Development,Java: A Beginners Guide and different books related to database management .

Document : [Download](#)

### Comments

**Comment by Internal Guide :**

None

**Comment by External Guide :**

None

**Comment by HOD :**

None

**Comment by Principal :**

None

**Comment by University Admin :**

None

[Figure D.4]

## Appendix E – Plagiarism Report



# Plagiarism Checker X Originality Report

**Similarity Found: 18%**

Date: Wednesday, October 16, 2019

Statistics: 429 words Plagiarized / 2378 Total words

Remarks: Low Plagiarism Detected - Your Document needs Optional Improvement.

-----

Abstract PhysioPlus is tool special for physiotherapy clinic that provides functions to manage patient's appointment, their medical records, financial transactions, manage doctors leaves etc. There are 3 users- 1. Super Admin, 2. Admin (doctors), 3. Patients. First user is patient they can request for appointment to available time slots along with doctors.

They will get a response for their appointment whether approved or not. They can follow up their taken treatment, transactions, remaining treatment and its schedule. They can post their review of a doctor. Second user id Admin who is a doctor who gets all appointments allocated to them along with the information available on patient.

After the completion of the treatment they will have to fill patients evolution card (completion of treatment form).They can request for a leave in a tool to get response and acknowledgement for their respective request. Third user is Super admin who is an authorized person/doctor who manage everything within the system.

Super admin can add new treatments, remove treatment or modify the treatment. Super admin can approve or reject appointments request submitted by patient. Super admin can take action for leave application submitted by doctors. Super admin can generate reports such as financial report, patients wise report, medical history report, referral doctor wise they also manage patients evolution card, super admin can generate regular invoice or custom made invoice (based on patient requirement).End of the month, the system will automatically generate the summary chart, which is a combination of all reports, this summary chart will see and verify by admin and Super admin only. 1. Introduction 1.1 Document Purpose The purpose of this document is to give description of the requirements for the "physioPlus" Application.

It will give the purpose and declaration for the development of mobile application. It will also explain application, and its functionality and its interactions with other applications and databases. This document is intended to be proposed to a customer for its reference for developing the first version.

It will elaborate the purpose and features of system, the interfaces of system and what system will perform. 1.2 Product Scope “physioPlus” is an online application for physiotherapy center and physiotherapy patient. This application helps user to search available doctor and make online appointment, so need to visit physiotherapy center for appointment.

Also user or patient can online communicate with their appointed doctor. Doctor can generate and manage medical report of their users or patient and updates them about their diagnosis. To use this application user needs an internet connection. Through this application doctor and their patient can interact with each other in a much easier way. This application has the capability to manage user medical reports.

1.3 Intended Audience and Document Overview The intended audience for this document will be the users of the application or we can say patient of the physiotherapy center, doctors of the hospital, hospital staff and admin of this application. 1.4

Definitions, Acronyms and Abbreviations

Term	Definition
Admin	The one who manages the application and also provides regular updates.
Application	An application which provides easy way to patient of the hospital.
User	User of this application.
Doctors	Doctors of the hospital
Hospital staff	Staff of the hospital who can communicate with patients and doctors both.

Software requirement specification A document that completely describes the features and functions of proposed system. 1.4 Document Conventions · Main Heading: Font-type: Times New Roman Font-size: 18 Font-style: Bold · Sub heading: Font-type: Times New Roman Font-size: 14 Font-style: Bold · Other text explanation: Font-type: Times New Roman Font-size: 12 Font-style: Normal font · Comments: Font-type: Times New Roman Font-size: 11 Font-style: Italic 1.5 References and Acknowledgments IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

Web Address Referred: <http://www.math.uaa.alaska.edu/~afkjm/cs401/IEEE830.pdf>  
 <<http://www.math.uaa.alaska.edu/%7Eafkjm/cs401/IEEE830.pdf>> 2. Overall Description 2 2.1 Product Perspective The purpose of this document is to give a description of the requirements for the “physioPlus” application. It will give the purpose and declaration for the development of mobile application.

This document is intended to be proposed to a customer for its reference for developing the first version. To use the application, users are required to register through their mobile number or email id. Whenever a new user is registered, all the required data will be created in the database.

The main perspective of this application is that provide easy way to the patients of the physiotherapy center. This is a data-centric application and it will need somewhere to store the data. For that, a database will be used. The mobile application will use the database as well as API to get data. All of the database communication will use the Internet.

This application also provides a platform for physiotherapy patient and physiotherapy doctors to easily communicate with each other. And for doctors to generate and manage user's medical reports and give instructions to user according to that reports.

2.2 Product Functionality Functionalities of this project.

- User module 1. Register/Login
- 2. Search for doctor
- 3. View available doctors
- 4. Make an appointment
- 5.

- Communicate with doctors
- 6. View their medical reports
- Doctor module 1. Login
- 2. Accept user appointment
- 3. Communicate with user
- 4. Generate medical reports of user
- Admin module 1. Manage doctors data
- 2. Manage patients data
- 3. Updation
- 4. Add features on the application

2.3 Users and Characteristics There will be four types of users that Interact with the application: User of the application. Doctors, Hospital staffs and Admin.

Mobile user or we can say hospital patients is the one who can make appointment online with the doctor they need also can communicate with the doctor. Doctors who diagnosis the patient and handle their medical reports also do diagnosis according to that reports. Hospital staff is can communicate with the both doctors and patients, Admin is the one who can manage all the data of doctors and patients and also provides updates.

2.4 Operating Environment Operating environment for the system is:

2.5 Design and Implementation Constraints Constrains regarding system:

- The Internet connection is also a constraint. The application fetches data from the database from the Internet, it is necessary to have an Internet connection for the application.

- User must have to register with their mobile number or email id to use this application.
- Only physiotherapy patient can use this application.
- This application will be developed only for the particular physiotherapy center and people of that physiotherapy center only can use this application.
- GUI will be only in English.
- Memory size are also constraints.

2.5

User Documentation This Application will be run and used on mobile phones, laptops,

PCs, tablets that have enough performance and have browser support. If the your device does not have enough hardware resources available for installation, for example the users might have allocated them with other applications, there may be scenarios where the application does not work as it should be.

One page description will be delivered in the Help feature which will consist of all major functions available for admin, user, and Hospital regarding the application and its features both along with their usage and explanation. 2.6 Assumptions and Dependencies The assumption is all the admins (doctors) will generate patient card of all the patient by end of that day only and send it to super admin. But sometimes it is not possible because of admins might have some emergency or might be they will forgot to do it.

So, in that case super admin must have to send reminder to them for complete their task so, super admin can verify and manage it. 3. Specific Requirements 3.1 External Interface Requirements 3.1.1 User Interfaces 3.1.2 Hardware Interfaces Our web application requires laptop or mobile device in which our application will run on.

And for the scanning of the documents it requires the scanner machine as the hardware, and for printing the documents and for invoices, application requires printer machine as a hardware. 3.1.3 Software Interfaces Our web application requires supported browser to efficiently run our application, and to view the documents or invoice, requires the pdf viewer or document viewer as a software. It also requires appropriate drivers for printer and scanner machine but it is already available in operating system.

So, we doesn't requires any third party software. 3.1.4 Communications Interfaces We are going to use: HTTPs protocol:-for secure data transfer. FTP protocol:-for the transfer files from server to client machine. SMTP protocol: -for communicate to user over mail system. SMPP protocol: -for send the important message through SMS (Short Message Service). 3.2

Functional Requirements Functional requirements specifies the activities and Services provided by the system. 3.2.1. User · Download mobile application A user should be able to download the mobile application through play store. The application should be free to download. · User Registration After downloading the application, the user should be able to register. The user needs to provide password, Mobile Number, Email-address, Name.

· User Login After user has registered, user should be able to log in to the mobile application. The information will be stored on the phone. · User Profile After user has registered, user should be able to view his profile in the mobile application. This will include his/her donation history, feedback, help, Blood donation requests etc.

- Search for doctor User can search for suitable doctor they need for their diagnosis. Also can see which doctor is available.
- Make an appointment After user will find the doctor they need for their diagnosis, they can make request for their appointment.
- View medical report Doctor can generate medical report of the user and the user can online view their medical report and take advice from the doctor.

- Give feedback User can also provide rating for the application.

3.2.2. Doctor

- Give appointment approval to user Doctor can approve the medical appointment which is requested by the user and can give the user a time slot for meeting.
- Generate medical report of the user Doctor can generate and manage the medical report of their patient and give medical advice to the patient according to their medical report.

- Notify user Doctor can notify the user when there is any change in time of the meeting, also notify when there will be any updation in their report, also can give medical advice to the user.

3.2.3. Admin

- Admin login Admin should be able to login in order to administrator the login
- Updates the Application Admin manages the application and provides updates and also maintenance.
- Manages users, doctors Admin will be able to manage the doctors and users of the application.

3.3 Behaviour Requirements 3.3.1

Use Case View 4. Other Non-functional Requirements 4 4.1 Performance Requirements

The requirements in this section provide a specification of the user interaction with the software placed on the system performance.

4.1.1. Prominent search feature The search feature should be proper and easy to find whatever the user searches.

4.1.2. Response time Fastness of search 4.1.3.

System dependency Fault tolerance of the system. If the system loses the Internet connection or to the GPS device or the system gets some strange input, the user should be informed.

4.1.4. Availability The system should be available at all times, meaning the user can access it using application.

4.1.5.

Performance The system is interactive and the delays involved are less.

4.1.6. Reliability The application should provide correct and accurate results.

4.2 Safety and Security Requirements Security and Safety of any system are major aspect while making any software.

4.2.1. Authentication System should be used only by authenticate users.

4.2.2. Communication security Security of communication between server and the client.

Communication should be secure with end-to-end encryption.

4.2.3. Data security Data of the user and patient should be secure and only known to themselves. For example medical report of any patient is only known to that patient and doctor they appointed.

4.3 Software Quality Attributes Quality attributes of any system are basically to provide justification for that system.

4.3.1.



Accurate Accuracy of the user search should be maintained. 4.3.2. Speed and responsiveness Execution of the system should be fast and responsive as compared to current existing system. 4.3.3. Usability The system should be easy to operate and understand for any user. 4.3.4. Maintainability System should be able to fix any problem occur suddenly. 4.3.5.

Internet Connection The application should be connected to internet. 4.3.6. Portability The application should be portable with Android. 4.3.7. Maintainability The application should be easy to extend. The code should be written in a way that it favors implementation of new functions. 4.3.8. Testability Test environments should be built for the application to allow testing of the applications different functions.

Appendix C - Data Dictionary Login ID: { Type: Number, Required: true }, Username: { Type: String, Required: true }, Password: { Type: String, Required: true } Register ID: { Type: Number, Required: true }, Username: { Type: String, Required: true }, Password: { Type: String, Required: true }, Repeat\_Password: { Type: String, Required: true } Patient P\_ID: { Type: Number, Required: true }, P\_name: { Type: String, Required: true }, P\_mob\_no: { Type: Number, Required: true }, P\_email: { Type: String, Required: true }, P\_age: { Type: Number, Required: true }, P\_email: { Type: String, Required: true }, P\_address: { Type: String, Required: true }, T\_ID: { Type: String, Required: true }, D\_ID: { Type: String, Required: true } Doctor D\_ID: { Type: Number, Required: true }, D\_name: { Type: String, Required: true }, D\_specialization: { Type: String, Required: true }, D\_email: { Type: String, Required: true }, D\_mob\_no: { Type: Number, Required: true }, T\_ID: { Type: Number, Required: true } Super\_admin S\_ID: { Type: Number, Required: true }, S\_name: { Type: String, Required: true }, S\_password: { Type: String, Required: true }, S\_email: { Type: String, Required: true }, S\_mob\_no: { Type: Number, Required: true } Therapy T\_ID: { Type: Number, Required: true }, T\_name: { Type: String, Required: true }, T\_date: { Type: Date, Required: true Default: Date.now() }, T\_time: { Type: Number, Required: true }, T\_amount: { Type: Number, Required: true }, T\_given\_by: { Type: String, Required: true }, D\_ID: { Type: Number, Required: true } Report Card R\_ID: { Type: Number, Required: true }, P\_ID: { Type: Number, Required: true }, D\_ID: { Type: Number, Required: true }, T\_ID: { Type: Number, Required: true }, S\_ID: { Type: Number, Required: true } Appointment A\_ID: { Type: Number, Required: true }, A\_Date: { Type: String, Required: true, Default: Date.now() }, A\_Time: { Type: Number, Required: true }, A\_Status: { Type: String, Required: true }, A\_therapy\_for: { Type: String, Required: true }, P\_ID: { Type: Number, Required:

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