

User Manual  
COS 301 Main Project  
Gynaecological Patient Information Management  
System  
Team :Pentec  
Version 1.0

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# Contents

|          |                                     |          |
|----------|-------------------------------------|----------|
| <b>1</b> | <b>Abstract</b>                     | <b>2</b> |
| <b>2</b> | <b>Chapter 1</b>                    | <b>3</b> |
| 2.1      | Change Log . . . . .                | 3        |
| 2.2      | Intended readership . . . . .       | 3        |
| 2.3      | Applicability . . . . .             | 3        |
| 2.4      | Purpose . . . . .                   | 3        |
| 2.5      | How to use this document . . . . .  | 3        |
| 2.5.1    | Problem Reporting . . . . .         | 3        |
| <b>3</b> | <b>Chapter 2</b>                    | <b>4</b> |
| 3.0.2    | Overview . . . . .                  | 4        |
| <b>4</b> | <b>Chapter 3</b>                    | <b>4</b> |
| 4.1      | Tutorial . . . . .                  | 4        |
| 4.1.1    | Running the Software . . . . .      | 4        |
| 4.1.2    | Shutting down the website . . . . . | 5        |
| <b>5</b> | <b>References</b>                   | <b>5</b> |

# **1 Abstract**

This document is the Software User Manual (SUM) for the Patient Information Management System project and was made according to the software engineering standard described in the tender proposal provided by Professor Snyman. The Software User Manual (SUM) instructs how to install and use the Patient Information Management System software. This project is part of the Software Engineering Project course (COS301) at the University of Pretoria.

## **2 Chapter 1**

### **2.1 Change Log**

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### **2.2 Intended readership**

This document covers the use for the following users of the PIMS system:

the system administrator  
the project administrators  
the medical staff  
the usability test subjects

### **2.3 Applicability**

This Software User Manual (SUM) applies to the PIMS software, version 0.1.

### **2.4 Purpose**

The purpose of the SUM is to assist the user in installing and using the PIMS software.

### **2.5 How to use this document**

How it is to be used:

- Chapter 2 - Overview of PIMS Software
- Chapter 3 - tutorials
- references of the complete PIMS software

#### **2.5.1 Problem Reporting**

Since the Pentec team will be dissolved after completion of the PIMS project, the issue of problem reporting is left to the Administrator, Professor Snyman.

## 3 Chapter 2

### 3.0.2 Overview

The software is used by doctors and medical staff to create patient forms and document patient information and to query the forms for statistical information.

## 4 Chapter 3

### 4.1 Tutorial

#### 4.1.1 Running the Software

1. Website page
  - (a) Establish an internet connection
  - (b) Search for website in web browser
  - (c) Log into PIMS system with given authentication codes
2. Mobile Application
  - (a) Establish an internet connection
  - (b) Search for website in web browser
  - (c) Log into PIMS system with given authentication codes
3. Tablet or other
  - (a) Establish an internet connection
  - (b) Search for website in web browser
  - (c) Log into PIMS system with given authentication codes
- ...
- Client
  - 90 file options
  - proxy address= the proxy address when used
  - password= your password
  - http port= the port of the dispatcher to which to connect to (this would normally be port 80)
  - 95 dispatcher address= the address of the dispatcher
  - username= your username in the system
- Agent
  - file options
  - 100 proxy address= the proxy address when used
  - http port= the port of the dispatcher to which to connect to (this would normally be port 80)
  - proxy port= the port that used by the proxy
  - dispatcher address= the address of the dispatcher
  - agent id= this must be 105 a unique identifier in the PIMS system

- Dispatcher
  - file options
  - database name= name of the user that has full privileges over the database
  - database pass= password of the user
  - 125 database address= address to the database e.g. jdbc:mysql://pcwin509.softeng.tue.nl/pentec
  - http port= port on which HTTP runs
  - max connections= maximum number of simultaneous connections allowed

#### 4.1.2 Shutting down the website

Contact your service provider(hosting site) to pull down the software

## 5 References

- The client, agent and dispatcher operations are described in this chapter. The description of the syntax of the operations needs an explanation:
- [ arg ]: Parameters between 145 the symbols [ and ] mean that these are optional. Note that the symbols itself are never used.
- ( arg0 — arg1 — ... — argn ): Parameters between the symbols ( and ) and the symbol — between those parameters, mean that one of the parameters from arg0 to argn must be chosen. Note that the symbols itself are never used.

### 1. Client Operations

#### (a) add user

Functional description This operation adds a user to the PENTEC-PIMS database.

Formal description:

- Syntax: add user (username,surname,password,staff type,department,email address,user right) as [Users] [A schema to save the details of all medical staff that can access the system]
- Parameters:
- [schema] (Required when chosen) : Users Schema
- [pentec.pims] (Required) : This is the name of the database in mongoose that we are using
- [details](Required):All the above mentioned details in syntax are important to add a user

Examples

- add user John Doe, Medical Intern, User right 2, Gynaecologist
  - add user url:http://kalafongpims.herokuapp.com/addUser
- URL : :http://kalafongpims.herokuapp.com as Medical Staff This is a medical research dataset PENTEC Software User Manual 0.1.0

Possible errors

- You do not have the login credentials
- A user with name [username] already exists
- You don't have the role of admin

Solutions

- Go to admin(Dr Snyman) and request he add you to the database of users.
- Register with your already given details. No duplicates allowed.
- Go to admin(Dr Snyman) and request he make you admin.

Related operations: remove user

(b) edit profile

Functional description This operation edits a users profile and saves it to the PENTEC-PIMS database.

Formal description:

- Syntax: edit user (username,surname,password,confirm password,staff type,department,email address,user right) as [Users] [A schema to save the details of all medical staff that can access the system]
- Parameters:
- [schema] (Required when chosen) : Users Schema
- [pentec\_pims] (Required) : This is the name of the database in mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are important to complete edit profile.

Examples

- edit user John Doe, Medical Intern, User right 2, Gynaecologist
  - edit user url:http://kalafongpims.herokuapp.com/editProfile
- URL : :http://kalafongpims.herokuapp.com as Medical Staff This is a medical research dataset PENTEC Software User Manual 0.1.0
- 14

Possible errors

- You do not have the login credentials to log into the system
- Passwords don't match
- You don't have the role of admin
- You do not appear on the system

Solutions

- Go to admin(Dr Snyman) and request he add you to the database of users.
- Register with your already given details sent to your email. No duplicates allowed.
- Re-enter your password
- Go to admin(Dr Snyman) and request he make you admin.

Related operations: add user

(c) password

Functional description This operation changes your password on the PENTEC-PIMS database.

Formal description:

- Syntax:password (confirm password, password) as [Users] [A schema to save the details of all medical staff that can access the system]
- Parameters:
- [schema] (Required when chosen) : Users Schema
- [pentec\_pims] (Required) : This is the name of the database in mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are important to complete password.

Examples

- password mysecretpassword, mysecretpassword
- add user url:http://kalafongpims.herokuapp.com/editProfile  
URL : :http://kalafongpims.herokuapp.com as Medical Staff This is a medical research dataset PENTEC Software User Manual 0.1.0

14

Possible errors

- You do not have the login credentials
- You don't have the role of admin
- Passwords dont match

Solutions

- Go to admin(Dr Snyman) and request he add you to the database of users.
- Go to admin(Dr Snyman) and request he make you admin.
- Re-enter your password carefully.

Related operations: none

(d) list form

Functional description This operation list all the available forms in the PENTEC-PIMS database.

Formal description:

- Syntax: list form (form name) as [Forms] [A schema to save the details of all medical forms in the system]
- Parameters:
- [schema] (Required when chosen) : Forms Schema
- [pentec\_pims] (Required) : This is the name of the database in mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are important to complete list form.

Examples

- list form Gynaecology Form
- list form url:http://kalafongpims.herokuapp.com/forms  
URL : :http://kalafongpims.herokuapp.com as Medical Staff This is a medical research dataset PENTEC Software User Manual 0.1.0

14

Possible errors

- You do not have the login credentials



- The form you are looking for does not exist

Solutions

- Go to admin(Dr Snyman) and request he add you to the database of users.
- Go to admin(Dr Snyman) and request he create the form.

Related operations: none

(e) add form

Functional description This operation allows you to add a new form using the form builder to the PENTEC-PIMS database.

Formal description:

- Syntax: add form (data, form name) as [Forms] [A schema to save the details of all medical staff that can access the system]
- Parameters:
- [schema] (Required when chosen) : Forms Schema
- [pentec\_pims] (Required) : This is the name of the database in mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are important to complete add form.

Examples

- add form Checkout form, JSON Object
- add form url:<http://kalafongpims.herokuapp.com/formbuilder>  
URL : <http://kalafongpims.herokuapp.com> as Medical Staff This is a medical research dataset PENTEC Software User Manual 0.1.0

14

Possible errors

- You cannot find the form you created

Solutions

- It should now be listed in the dropdownlist on the page forms

Related operations: list form

(f) save form

Functional description This operation allows you to save a form to the PENTEC-PIMS database.

Formal description:

- Syntax: save form (data, form name) as [Forms] [A schema to save the details of all forms created in the system]
- Parameters:
- [schema] (Required when chosen) : Forms Schema
- [pentec\_pims] (Required) : This is the name of the database in mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are important to complete save form.

Examples

- save form discharge form, JSON Object
- save form url:<http://kalafongpims.herokuapp.com/formbuilder>

URL : :http://kalafongpims.herokuapp.com as Medical Staff This is  
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14

Possible errors

- none

Solutions

- none

Related operations: list form, add form

(g) send notification

Functional description This operation allows you to notify a patient  
of their follow up via email.

Formal description:

- Syntax: add notification (username, email, message, date) as [User-  
s] [A schema to save the details of all medical staff that can access  
the system]
- Parameters:
- [schema] (Required when chosen) : Users Schema
- [pentec\_pims] (Required) : This is the name of the database in  
mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are  
important to complete send notification

Examples

- add notification John Doe,john@gmail.com, "John Please come for  
your checkup",2015
- add notification url:http://kalafongpims.herokuapp.com/sendNotification

URL : :http://kalafongpims.herokuapp.com as Medical Staff This is  
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14

Possible errors

- You cant find the users name
- User does not have an email address

Solutions

- Patient does not exist in the system
- Notification cannot be sent to user

Related operations: remove user

## 2. Agent Operations

list department

Functional description This operation lists all the departments on  
the splash screen from the PENTEC-PIMS database.

Formal description:

- Syntax: list department (name of department, link) as [Depart-  
ments] [A schema to save the details of all departments in the  
system and display them on the splash screen]

- Parameters:
- [schema] (Required when chosen) : Departments Schema
- [pentec\_pims] (Required) : This is the name of the database in mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are important to complete list user.

Examples

- list department Gynaecology, www/d/
- list department url:http://kalafongpims.herokuapp.com/splash  
URL : :http://kalafongpims.herokuapp.com as Medical Staff This is a medical research dataset PENTEC Software User Manual 0.1.0

14

Possible errors

- None

Solutions

- None

Related operations: none

### 3. Dispatcher Operations

exit

Functional description This operation adds a user to the PENTEC-PIMS database.

Formal description:

- Syntax: add user (none) as [none] [none]
- Parameters:
- [schema] (Required when chosen) : Users Schema
- [pentec\_pims] (Required) : This is the name of the database in mongoose that we are using.
- [details] (Required) :All the above mentioned details in syntax are important to complete exit.

Examples

- exit [press logout button]
- exit url:http://kalafongpims.herokuapp.com/home  
URL : :http://kalafongpims.herokuapp.com as Medical Staff This is a medical research dataset PENTEC Software User Manual 0.1.0

14

Possible errors

- none

Solutions

- none

Related operations: login