**SANA MODULES**

**Installation Guide**

Prepared for

SER 515—Software Enterprise

Instructor: Dr. Kevin Gary

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**Team Members:**

Arpit Jaiswal

Devanshi Panu

Sweta Singhal

Parneet Kaur

Pankhi Prasher

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# Revision History

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| --- | --- | --- | --- |
| **Date** | **Description** | **Author** | **Comments** |
| 20-11-15 | Version 1 | Devanshi Panu | Final Version |

# 1. For Patient

* [Download](https://github.com/ser515asu/SanaModules-Createch/) Sana Mobile App. Follow the link to download the apk file.
* Register as patient
* [Download](https://play.google.com/store/apps/details?id=org.cnmc.painClinic) PROMIS SCD Pain Report App
* Obtain SCD pin from clinician.

# 2. For Doctor

* [Register](http://52.10.82.9:8080/openmrs197/) as doctor on OpenMRS web portal

# 3. For Developer

* + In order to develop this project we had to install the following software:
  + MDS and OpenMRS installation
    - In case you want to download OpenMRS with MDS refer to this given [installation guide](https://github.com/ser515asu/SanaModules-Createch/blob/master/sana.mds/doc/INSTALL).
  + OpenMRS installation without MDS

We installed and hosted OpenMRS on an Amazon EC2 instance. The following steps are helpful in the process.

* + - [Create](http://aws.amazon.com) an Ubuntu EC2 instance on [Amazon AWS](https://aws.amazon.com/). We used ami-5189a661 which is free-tier eligible.
    - [Connect](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/putty.html) to your instance using putty.
    - Install the following using your Ubuntu instance terminal
    - sudo apt-get update && sudo apt-get upgrade
    - sudo tasksel
    - (Select Lamp Stack and Tomcat and press Enter)
    - sudo nano /etc/tomcat7/tomcat-users.xml
    - (Or use your favorite editor to make the file appear as shown below. Make sure to add this part to the file.)

<tomcat-users>

<role rolename="admin"/>

<role rolename="admin-gui"/>

<role rolename="manager-gui"/>

<user username="test" password="test" roles = "admin,admin-gui,manager-gui"/>

</tomcat-users>

* + - sudo nano /etc/default/tomcat7

(Turn off tomcat security flag in "/etc/init.d/tomcat7" file. Uncomment the following line and set value to no.)

TOMCAT7\_SECURITY=no

* + - sudo nano /etc/tomcat7/policy.d/03catalina.policy

(Add the following lines to the policy file.)

grant codeBase "file:${catalina.home}/openmrs/-" {

permission java.security.AllPermission;

};

* + - sudo mkdir /usr/share/tomcat7/.OpenMRS

(Fix application data directory)

sudo chown –R <root user>:tomcat7 /usr/share/tomcat6/.OpenMRS

(Note the space between root and /usr)

* + - sudo service tomcat7 restart

Check that it works by going to http://<server\_ip>:8080/

* + - The webpage should say “It works!”
    - Click on the link to manager webapp” or go to http:// <server\_ip>:8080/manager/html
    - Username: test Password: test (from tomcat users xml file)
    - Download and deploy [Openmrs197.war](http://sourceforge.net/projects/openmrs/files/releases/OpenMRS_1.9.7/) in tomcat.
* Note: We had tried several versions of OpenMRS and v1.9.7 worked out to be the most stable one. Be sure to download this particular version.
  + - Visit this [page](http://sana.mit.edu/wiki/index.php?title=Setup_Servers#Initial_Setup_Wizard_for_OpenMRS) for Openmrs initial setup instructions. Load in Required Sana modules for OpenMRS. Login to OpenMRS > Administration > Manage Modules > Click on "Add or Upgrade". Install from Module Repository
      * WebServices.REST module
      * HTMLFormEntry module
      * LogManager module
    - Setup OpenMRS for SANA and PROMIS SCD
      * Add the following new concepts:
        1. Name: SCD Pain Score

Class: Question

Datatype: Numeric

* + - * 1. Name: Retake SCD Survey

Class: Question

Datatype: Boolean

* + - * 1. Name: Doctor Comments

Class: Question

Datatype: Text

* + - * Add the following new Identifier Type:
        1. Name: SCD ID

Identifier validator: None

* + - * Add the following new Encounter Type:
        1. Name: SCDSURVEY
      * Add the following new role clinician/doctor and assign it the following privileges:
        1. Inherited Role: Provider
        2. Add Encounters
        3. Add Observations
        4. Add Patient Identifiers
        5. Add Patients
        6. Add Problems
        7. Add users
        8. Add visits
        9. Edit Encounters
        10. Edit Observations
        11. Edit Patients
        12. Manage Encounter Queue
        13. Patient Dashboard - View Encounters Section
        14. Patient Dashboard - View Visits Section
        15. Patient Dashboard - View Patient Summary
        16. View Concepts
        17. View Concept Classes
        18. View Concept Datatypes
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        20. View Encounters
        21. View Encounter Types
        22. View Forms
        23. View Observations
        24. View Navigation Menu
        25. View Patient Identifiers
        26. View Patients
        27. View Person Attribute Types
        28. View Privileges
        29. View Reports
        30. View Roles
        31. View Visits
    - For testing the OpenMRS API refer to their resources [guide](https://wiki.openmrs.org/display/docs/REST+Web+Service+Resources+in+OpenMRS+1.9) available online.
    - If trying through postman. [Import](https://github.com/ser515asu/SanaModules-Createch/tree/master/OpenMRS) the Postman collection of OpenMRS for SCD.
  + Mobile Client installation
    - Download the latest version of Android Studio.
    - Clone the mobile client code from our git repository <https://github.com/ser515asu/SanaModules-Createch>