**Pseudocode**

New Scanner = D

PRINT “Welcome to the Dentists”

DO

PRINT Menu: “1 – Admin”

“2 – Dentist”

“3 – Patient”

“Q – Quit”

User input: “Pick : “);

Scanner D = input.next

SWITCH

Case 1 = PRINT Admin Menu

Case 2 = PRINT Dentist Menu

Case 3 = PRINT Patients Menu

WHILE

Q = Program Exit

Static void = loadData

WHILE

INFO.hasNext

String dentistFirstName

String dentistLastName

String dentistPasscode

Static void = Patients

Patients = new scanner

FOR i=0; i<3

PRINT = “Please input username”

String usernameP

Scanner Patients = input.next

PRINT “Please input password”

String passwordP

Scanner Patients = input.next

IF usernameP + passwordP EQUAL correct details

THEN display patientsMenu

ELSE println = “Your username or password is incorrect, please try again"

I>3 THEN println = “Tries exceeded, Returning to menu.”

Static void = Dentist

Dentist = new scanner

FOR i=0; i<3

PRINT = “Please input Name”

String usernameD

Scanner Dentist = input.next

PRINT “Please input password”

String passwordD

Scanner Dentist = input.next

IF usernameD + passwordD EQUAL correct details

THEN display dentistMenu

ELSE println = “Your username or password is incorrect, please try again"

I>3 THEN println = “Tries exceeded, Returning to menu.”

Static void = Admin

Admin = new scanner

FOR i=0; i<3

PRINT = “Please input username”

String usernameA

Scanner Admin = input.next

PRINT “Please input password”

String passwordA

Scanner Admin = input.next

IF usernameA + passwordA EQUAL correct details

THEN display adminMenu

ELSE println = “Your username or password is incorrect, please try again"

I>3 THEN println = “Tries exceeded, Returning to menu.”

Scanner Admin = New Scanner

For (int i=0; i<3; i++)

Println =”please input username”

UsernameA = Admin.next()

Println = “Please input password”

PasswordA = Admin.next()

If UsernameA.equals “admin” & PasswordA.equals “Password” adminSubMenu()

Break

Else Println = “Your username or password is incorrect, please try again”

Println = Tries Exceeded, Returning to menu

Final Scanner P = New Scanner

String PatientChoice = “ ”

DO

Println “1- Add/ Change your personal details“

Println “2- Previous Visits to the practice “

Println “3- Previous treatment recived“

Println “4- Request an appointment “

Println “5- Do you allow your practice admin to view your treatment list Y/N“

Println “Q- Quit“

Println “Pick : “

PatientChoice = P next() toUpperCase()

SWITCH patientChoice

Case “1”

personalDetails

BREAK

Case “2”

PreviousVisits

BREAK

Case”3”

PreviousTreatment

BREAK

Case “4”

RequestAppointment

BREAK

Case “5”

Privacy

BREAK

Case ”6”

BREAK

WHILE

patientChoice.equals “Q”

Final Scanner D = NewScanner

Choice = “ “

DO

Println”1 – add/change personal details”

Println”2-View Calendar”

Println”3-List Previous Appointments”

Println”4-Add treatment to a patient”

Print”Pick :”

Choice = D.next

SWITCH

Case 1

AddRemoveDetailsDentist

BREAK

Case 2

DisplayAppointment

BREAK

Case 3

ListPreviousAppointment

BREAK

Case 4

AddTreatmentToPainent

BREAK

WHILE

Choice.equals “Q”

Private Static Void AddremoveDetailsDentist

Private Static AdminSubMenu

Final Scanner A = New Scanner

CHOICE = “ “

DO

Println”1- Add/remove dentist”

Println”2- Add/Remove Patient”

Println”3- Add/Change First Choice Dentist”

Println”4 – Alter working days”

Prinln “5- ListUpcoming Visits Made”

Println”6- List Previous Visits Made”

Println”7- List Treatments Made”

Println “Q- Quit”

Choice = A.Next toUpperCase

SWITCH Choice

Case 1

AddRemoveDentist

BREAK

Case 2

AddRemovePatient

BREAK

Case 3

AddRemoveFirstChoice

BREAK

Case 4

Alterdays

BREAK

Case 5

DisplayAppointment

BREAK

Case 6

ListPreviousVisits

BREAK

Case 7

ListTreatments

BREAK

WHILE Choice.Equals Q

Public Static Void AddRemovePatient Throws File Not Found Exception

Final Scanner Answer = New Scanner

Scanner Patient Details= New Scanner New FileReader

Final PatientDetailsA PatientDetailsArray = New array

INT amount = 0

WHILE

Patient Details .HasNext

String PatientID = Patient Details .Next

String First Name = Patient Details .Next

String Last Name = Patient Detail .Next

String Password = Patient Details .Next

String FristDentist = Patient Details .Next

PatientDataillArray = PatientDetailsA PatientID , FirstName, LastName, Password, Address, FirstDentist

String AddPatient = 0

String AddFirstNames = Free

String AddLastName = Free

String AddPassword = Free

String AddAdress = Free

Println “Would You like to add or remove a patient”

Println “1- Add”

Println “2- Remove”

AddPatient = Answer.next

IF Add patient .equals 1

String Empty = Free

Println “please remember to use the \_ instead of spaces thank you

Println “ “

Println “Please enter first name”

AddFirstName = Answer

Println “Please enter Last Name”

AddLastName = Answer

Println “please eneter new password name”

AddPassword = Answer

Println “Please enter address”

AddAddress = Answer

FOR IN i=0 Patient details array

IF Get First Name = Empty Get Last Name = Empty Get Password = empty get Address = empty

Add First Name, Last Name, Password, Address

BREAK

ELSE

Println “Please enter your first name”

String First Name Remove = Next Line

Println “Please enter your last name”

String Last Name Remove = Next line

Println “Please enter our password”

String Password remove = Next line

String remove = Free

FOR int i=0

IF Get First Name = Empty Get Last Name = Empty Get Password = empty get Address = empty

Remove Firs Name, Last Name, Password, Address, First Dentist

BREAK

Private Static Void Add Remove First Choice throws file not found exception

String Change = Free

Println “Please Enter First Name”

Println “Please enter Last Name”

Println “please Enter New Password”

Println “Would you like to add or remove your first choice dentist”

Println “1 – Add”

Println “2 – Remove”

String AddFirstChoice = Input.next

IF AddFristChoice.equals “1”

FOR INT I = 0 PatientDetailsArray

IF Get First Name = Empty Get Last Name = Empty Get Password = empty

Remove Firstname, lastname, password, address, first dentist

BREAK

Public static void Add Remove First Choice Throws File not found exception

STRING Change = free

Println “please enter first name”

String FirstName = input.next

Println “please enter last name”

String Last name = input.next

Println “please enter a new password”

String Password = Input.next

If Patient Details Array = First Name , Last name, password.

Println “please enter your first choice dentists name”

Patient Details Array . Change First Dentist (CHANGE)

BREAK  
Private Static Void List Appointments

Println “Please enter your surname “

String Surname = Userinput.next

Boolean Are rooms = False

For Appointment info appointment .values

IF Appointment.isReserve

IF Surname.equals Appointment is Balcony

Println Appointment.toString

Are Rooms = True

Private Static Void List Previous Upcoming visits

Private Static Void Treatment List

Scanner File = New Scanner

INT Statement = 0

WHILE

String patient ID = File.Next

String Treatment = File.next

String Date = File.Next

String Dentist = File.next

Treatments Statement = New Patient

patientID, Treatment, Date, Dentist

Statement

File.Close

Private Static Void Display Treatments

FOR INT i=0 Treatments

Println “ “

Println Treatments . Display Treatments

Private Static Void Load Dentist Details

Scanner Dentist Details = New Scanner

INT amount = 0

WHILE Dentist Details .Hasnext

String Dentist ID = Dentist Details .next

String First Name = Dentist Details .Next

String Last Name = Dentist Details .next

String password = Dentist Details .next

String Address = Dentist Details .Next

Dentist Details array = New Sentist Details A

Dentist ID, First Name, last Name, Password, Address, Amount

Private Static Void Save dentist Details

Print Writer save = New Print Writer

FOR INTi=0 Dentist Details Arrat

Save Println Dentist Details Array .Save

Save.close

Private Static VoidAddremove Dentist

String Add Dentist = 0

String Add First Name = Free

String Add Last Name = Free

String Add password = Free

String Add Address = Free

Println “Would you like to add or remove a dentist”

Println “1 – Add”

Println “2 – Remove”

Add Dentist = input Next

IF Add Dentist = 1

String Empty = Free

Println “Please Remember to use ‘\_’ instead of spaces, Thank you”

Println “ “

Println “Please enter First Name”

Add First Name = Input .next

Println “please enter last name”

Add Last name = input .next

Println “Please Enter a new password”

Add Password = Input .next

Println “please enter address”

Add Address = input .next

FOR INT i=0

Dentist Details Array

If Dentist Details Array = First Name , Last name, password.

BREAK

ELSE

Println “Please enter First Name”

String First Name = Input .next

Println “please enter last name”

String Last name = input .next

Println “Please Enter a new password”

String Password = Input .next

String Remove = Free

FOR INT i=0

Dentist details Array

First Name Remove, Last name Remove, Password Remove, Address Remove

Private Static Void List Previous Upcoming appointments

Private Static Void Add Treatment To Patient Files Not Found Exception

Scanner File New Scanner New File Reader

Println “Please enter patients ID”

String setpatientID = Input .next

Println “please enter the Treatment”

String treatment = input .next

Println “Please Enter The Date”

String setDate= Input .next

String Set Dentist = Global Dentist Last Name

String Empty = Free

FOR INT i=0 Dentist Details Array

IF Treatments Get Patient ID, Get Treatment, Get Date, Get Dentist

AddpatientID – SetPatientID

AddTreatment – SerTreatment

AddDate – SetDate

AddDentist – SetDentist

BREAK

Public Static Void Display Treatment For Dentist

String CheckDentistLastName = GlobalDentistLastName

Scanner File = New Scanner New File Reader

FOR INT I=0 Treatments

IF Treatments .get dentist .equals

Println “ “

Println “Your Treatment Information is :”

Println “Treatments .DisplayTreatment”

Println “ “

Public Static Void Change Patient Details File Not Fount Exception

String Check First Name Global Patient First Name

String Check last Name Global Patient Last Name

String Check password Global Patient password

String Check Patient ID Global Patient ID

Println “ Please Remember to use ‘\_’ Instead of spaces, Thank you”

Println “ “

Println “please Enter First Name”

String New First Name = Input .next

Println “ Please enter New Last Name”  
String New Last Name = input.next

Println “Please Enter New Password Name”

String New Password = input.next

Println “ Please Enert New First Choice Dentist”

String New First Dentist = Input .next

FOR INT I=0 patient Details Array

IF PatientDetailsArray

Add First Name = NewFirstName

Add Last Name = NewLastName

Add password = NewPassword

Add Address = NewAddress

Change First Dentist = NewFirstDentist

BREAK

Public Static Void Change Dentist Details File Not Fount Exception

String Check First Name Global Dentist First Name

String Check last Name Global Dentist Last Name

String Check password Global Dentist password

String Check Patient ID Global Dentist ID

Println “ Please Remember to use ‘\_’ Instead of spaces, Thank you”

Println “ “

Println “Please Enter First Name”

String New First Name = Input .next

Println “Please enter New Last Name”  
String New Last Name = input.next

Println “Please Enter New Password Name”

String New Password = input.next

Println “Please Enter New Address”

String New Address = Input .next

FOR INT I=0 Dentist Details Array

IF DentistDetailsArray

Add First Name = NewFirstName

Add Last Name = NewLastName

Add password = NewPassword

Add Address = NewAddress

BREAK

Private Static Void PreviousVisits

Println “ ID : “

String ID = underInput .next

Println “Password : “

String Password = user input .next

Println “—” + ID + PREVIOUS/UPCOMING APPOINTMENTS LIST

FOR Appointments

IF Appointment is Reserved

IF ID.Equals Appointment + Password +Appointment

Println Appointment .to string

Is there appointments = true

Println “ “

publicStatic Void Display treatment

String Check Patient = ID GlobalPatient ID

Scanner File = New Scanenr New FileReader

FOR INT I=0 Treatments

IF Treatments .getpatientID .equals

Println “ “

Println “Your Treatment Information is”  
Println “Treatments .Display Treatment”

Private Static Void View All Appointments

FOR Appointment

Println Appointment .tostring

Private Static Void Load Appointment Data

Scanner userInput

userInput = new Scanner New File Reader List of appointments

String Information = “ “

String Decrypt = “ “

Char FileSecurity

WHILE User nput .hasnext

Information = userinput.nextLine

Decrypt = “ “

FOR INTO I = 0 INFORMATION

FileSecurity = Information

FileSecurity = Char FileSecurity = CeaesarCipoher

Decrypt = Decrypt +FileSecurity

STRING Strs = Decrypt .split “ “

Appointments .put New appointmentsInfo

UserInput.close

Private Static Void Reserve Room

Println “ Available rooms “

Boolean is ThereAppointments = False

FOR Appointments

IF Appointment .isreserve

Prinln Appointment .tostring

Is ThereAppointments = True

AquireRoom

Private Static Void Search Room

Print “Type a preferred date in April you would like [Format: 01/04/2018] :”

String Type = UserInput.next

Print "Latest time you can make the appointement :”

double price = userInput.nextDouble

print "Please enter first choice dentist [Surname] :

String balcony = userInput.next

FOR INT Match = 3 Match > 1

Is there appointments = False

Println “Showing Appointments Matching “ + Match + Requirements !”

FOR Appointments .values

IF Appointments is Reserve

IF Appointment Check Match Type Price = match

Is there appointments = True

IF is there appointments

BREAK

Else Println “No Rooms Matching : “ + Match + “ Requirements !”

AquireRoom Is there appointments

Private Static Void Boolean

IF Is there aoointments

Println “Reserve Appointment No : “

INT no = uderInput .next int

print("What is your ailment? [1:Toothache, 2:Accident, 3:Bleeding, 4:Over-Sensitive, 5:Other] "

if ailment.equals"1"

ailment = "Toothache”

else if ailment.equals"2"

ailment = "Accident"

else if ailment.equals"3"

ailment = "Bleeding"

else if ailment.equals"4"

ailment = "Over-Sensitive"

else if ailment.equals"5"

ailment = "Other"

print "ID : "

String ID = userInput.next

Print "password : "

String password = userInput.next

TRY

Appointments .get .ReserveRoom Aliment, ID, Password

Prinln “Victory”

Catch Exception E

Println “e.getMessage”

ELSE

Println "No Appointments are available at this time"

private static void cancelRoom

System.out.print"What was your ailment? [1:Toothache, 2:Accident, 3:Bleeding, 4:Over-Sensitive, 5:Other] "

String ailment = userInput.next

if ailment.equals"1"

ailment = "Toothache"

else if ailment.equals"2"

ailment = "Accident"

else if ailment.equals"3"

ailment = "Bleeding"

else if ailment.equals"4"

ailment = "Over-Sensitive"

else if ailment.equals"5"

ailment = "Other"

print"ID : "

String ID = userInput.next

System.out.print"password : "

String password = userInput.next

System.*out*.println"-- " + ID + " RESERVE APPOINTMENTS --"

boolean isThereAppointments = false

FOR Appointment info Appointment .values

IF Appointment is reserve

ISThereAppointments = True

IF is there appointments

Println “Cancel Appointment No : “

INT no = User Input.nextINT

TRY

APPOINTMENTS .GET no CANCEL ROOM ID

Println “Victory”

CATCH

E.GETMESSAGES

ELSE

PRINTLN “THERE ARE NO APPOINTMENTS MATCHING YOUR CREDENTIALS “

Private Static VBoid Save Data

String Information

Char File Security

String Encrypt

TRY PrtinWriter PW = New Print Writer File writer

INFORMATION = Appointment .tostring

Encrypt = “”

FOR INT i=0

I = Information .length

File Security = Information

File Security = Chat CaesarCipher

Encrypt=Encryt + FileSecurty

PW Encrypt

PW .Close

Private Static Void Privacy

Public Static Void SaveTreatments

Scanner Patient Details = NewScanner New File Reader

PrintWriter Save = New Print Writer

FOR INT i=0 Treatments

Save.println Treatments .Save

Save.Close