

1. 5 IMPORTANT USE CASES

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Full use case description

1.1. Booking Appointment

Use case name:	Book appointment	
Scenario:	Patient wants to book an appointment	
Triggering event:	Patients make a new appointment	
Brief description:	This use case describes how to make an appointment when a patients request an appointment	
Actors:	Patient	
Related use cases:	Search appointment availability Cancel appointment Confirm appointment Update appointment	
Stakeholders:	Patient Re- ceptionist Doctor	
Preconditions:	Patient must be registered and available	
Postconditions:	Appointment successfully booked	
Flow of activities:	Actor	System
	1. Patient selects available time for appointment 2. Enters patient details	1.1 Verifies selected appointment 2.2 System verifies patient details as correct
Exception conditions	Appointment unavailable	

Page Design

A booking tab: A user selected this tab to start with booking an appointment

This is dropdown for doctors: A user chooses a doctor based on their need, doctors name and their profession are shown.

Data is stored in: Doctor Table

doctorFirstName,
doctorSpeciality

Logged on user's details

MediBookings
WELCOME PHINDILE
PROFILE

Book Appointment
Confirm Appointment details
View Appointment
Cancel Appointment
Reschedule Appointment

Please Select Date

24/10/2021

OCTOBER 2021

S	M	T	W	T	F	S
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Please Select Doctor

Dr E Mahlangu (General Practitioner)

Dr E Mahlangu (General Practitioner)

Dr S Mochiye (Neurologist)

Dr N Sithole (Gynaecologist)

Dr P Senamelo (Dietician)

Dr E Mahlangu Schedule

24/10/2021

08:00-08:30 AM

08:30-09:00 AM

09:30-10:00 AM

11:00-11:30 AM

13:30-14:00 PM

Choose your suitable time

SAVE & CONTINUE

A user selects a suitable date for the appointment

Which will be stored in

schedule_Date

Data stored in: Schedule table

After selecting a doctor, Doctor's schedule is shown below with available slots, the user can choose their suitable time. The schedule id will be taken from the selected time and date.

Data stored in: Schedule Table and Appointment table

appointmentStatus: Inserted

scheduleDate: Read

scheduleId: Read

scheduleStatus : Updated

Confirmation Tab: A user has selected the confirmation tab to confirm the details of the appointment

MediBookings

Book Appointment | **Confirm Appointment details** | View Appointment | Cancel Appointment | Reschedule Appointment

Appointment Details

AppointmentID:1
PatientID:010
Patient Name:Phindile Masimula
Appointment Date and Time:21 October 2021 at 09:30-10:00 AM
Symptoms: Dry cough,Diarrhea,Blocked Nose
Will be assisted by: Dr E Mahlangu(General Practitioner)

Confirmation
Correct details?

No Yes

Click Save and Continue to move to the next page

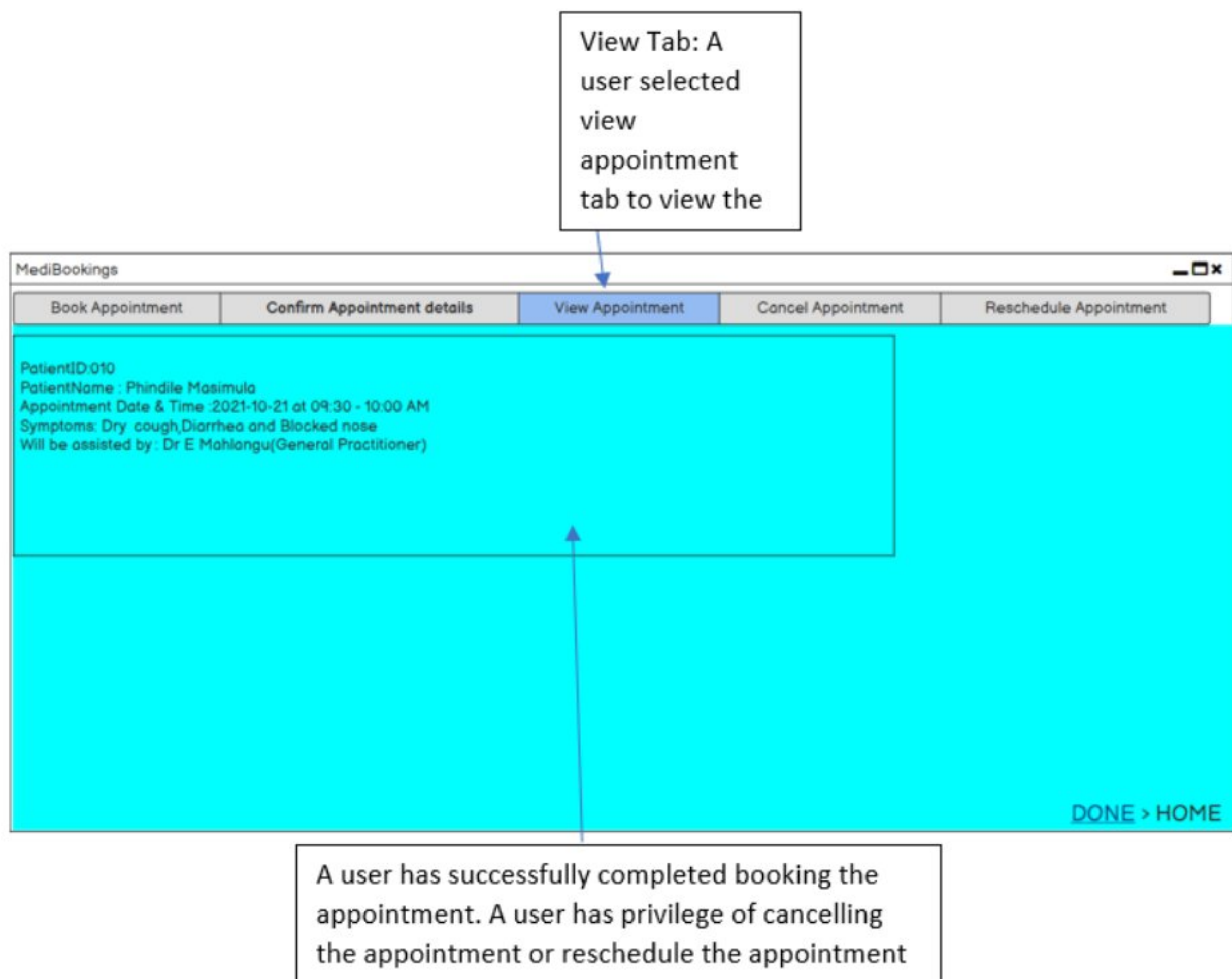
SAVE & CONTINUE

Appointment Details are stated above of patient appointment which displays all the details of the appointment, **patientId** is taken from the logged on users' information and the **appointmentId** is generated automatically when a patient books for the appointment, a popup notification is showed to verify the information.

Data Stored in: Appointment Table

appointmentStatus : Inserted

appointmentID : inserted



1.2. Manage Schedule

Use case name:	Manage schedule	
Scenario:	Receptionist wants to change the doctor's schedule	
Triggering event:	Availability change request	
Brief description:	Receptionist wants to change the doctor's schedule	
Actors:	Receptionist	
Related use cases:	Reschedule appointment Update appointment	
Stakeholders:	Receptionist Doctor	
Preconditions:	Available schedule	
Postconditions:	Doctor schedule is updated	
Flow of activities:	Actor	System
	1.Receptionist logs in and selects doctor schedule on the system 2. Receptionist updates the schedule	1.1 System provides the receptionist with the current doctor's schedule 2.2 System sends message to stakeholders that the schedule has been updated
Exception Conditions	Schedule details not found	

Page Designs

This dropdown shows all doctors & Data from this table is populated from the **Doctor** table

This button is used to choose the period of schedule(s)

This dropdown has
Logout – for logging out of the system
Profile – for managing the account

MediBookings

Welcome Receptionist Makola

Makola

Dashboard

doctor Schedule

Patient list

Schedule

Select a doctor

Dr Bothma

Dr Erasmus

Dr Machiye

Dr Ngobeni

Dr Smith

Dr Thomas

Daily schedule

Weekly schedule

Monthly schedule

2021-10-18 To 2021-10-23

Duration

☐ 30 Minutes

☐ 45 Minutes

☐ 1 hour

Time 09:00 AM To 4:00 PM

Generate schedule

Date range for the schedule(s)

This button is used to generate the schedule after filling all the fields

In this page design we have the receptionist logged in to the system (to manage the doctor's schedule)

- The default date to manage the schedule is the first date(day) of the week.
- The receptionist chooses the slot duration of the schedule(s).













Data of this table comes from

Doctor table
(DoctorLastname)

Schedule table
(scheduleDate, scheduleDay and etc)

Receptionist can filter by the status or a doctor

This is where the doctor chooses the start and end date of the schedule

Scheduled Reports						
Show	All doctors*	All appointments*	<div> <div>2021-10-18</div> <div>To</div> <div>2021-10-23</div> </div>			
	<div> <div>Dr Bothma</div> <div>Dr Erasmus</div> <div>Dr Machiye</div> <div>Dr Ngobeni</div> </div>	<div> <div>Available</div> <div>Not available</div> </div>				
Doctor	scheduleDate	scheduleDay	startTime	endTime	Status	Action
Dr Nyawo	2021-10-18	Monday	09:00	09:45	Available	 
Dr Machiye	2021-10-19	Tuesday	13:00	14:00	notAvailable	 
Dr Ngobeni	2021-10-20	Wednesday	10:00	10:30	Available	 
Dr Bothma	2021-10-21	Thursday	12:00	13:00	notAvailable	 
Dr Smith	2021-10-22	Friday	11:05	11:55	Available	 
Dr Erasmus	2021-10-23	Saturday	09:30	10:15	Available	 

- The default filter is all doctors and all appointments (appointment status).
- The default date is all the schedule's dates, but the receptionist is also allowed to Choose the start date and end date for the schedules.
- On the **Action** column data is being update or deleted from the **schedule** table

This column edits or delete the scheduled report

Page Design

Data from this page receptionist name the system gets that information on the current logged in user and patient table in the patient name field,

The default date for the date to show appointments is the system date and the last day of the current month a patient can choose a date to show

MediBooking

Welcome Emmanuel Mahlangu

Profile Settings LogOut

Dashboard Appointment List

Show: All appointments
 Attended Appointm
 Cancelled Appoint
 Missed Appointmen
 Pending Appointme

Show from: 14/10/2021 To: 31/10/2021

Appointment Date	Appointment Time	Appointment Duration	Appointment Type	Doctor	Appointment Status	Expand Detail
10/10/2021	10:00	30 min	Eye Doctor	Dr Strydom	Cancelled	
11/10/2021	10:30	30 min	Dentist	Dr Mahlangu	Attended	
14/10/2021	11:00	30 min	Eye Doctor	Dr Strydom	Pending	

Sort by: Appointment Date
 Appointment Type
 Doctor

Apply

Data of the table come from

Patient Table(patient ID, patient_firstName,patientLastName)

Doctor Table(DoctorLastName)

Schedule table(schedule_date, schedule_startTime, duration)

Appointment Table(Appointment_status, appointment_type)

Appointment date is the default sorting arrangement

Data from this page receptionist name the system gets that information on the current logged in user and receptionist table in receptionist name field,

The default date for the date to show appointments is system date and the last day of the current month a receptionist can choose date to show

MediBooking

Welcome Receptionist Mahlangu

Profile Settings LogOut

Dashboard Doctor Schedule Patient List

Show appointments from: 10/10/2021 To: 31/10/2021

Patient ID	Patient Name	Doctor	Appointment Date	Appointment Time	Appointment status	Attended
960827 5688 084	Simphele Mochye	Dr Mabena	10/10/2021	10:00 to 10:25	Missed App	
910723 5683 084	Phumzile Mahlangu	Dr Mnguni	10/10/2021	10:30 to 10:55	Attended	<input checked="" type="checkbox"/>
010224 5487 086	Pertunia Senamela	Dr Senamela	10/10/2021	11:00 to 11:25	Cancelled	
870616 5786 081	Thobile Mnguni	Dr Mahlangu	10/10/2021	11:30 to 12:25	Pending	<input type="checkbox"/>
781212 5688 086	Thokozile Ndlovu	Dr Mvundla	11/10/2021	10:30 to 10:55	Pending	<input type="checkbox"/>
900913 5678 083	Lucky Masilela	Dr Strydom	12/10/2021	09:30 to 10:25	Pending	<input type="checkbox"/>

Sort: Appointment Date
 Doctor
 Patient Name

Show appointments for: All Doctor*
 Dr Mabena
 Dr Masilema
 Dr Ndlovu
 Dr Strydom

show: All Appointments
 Attended Appointme
 Canceled/Missed A
 Pending Appointme

Update

Data of the table come from

Patient Table(patient ID, patient_firstName,patientLastName)

Doctor Table(DoctorLastName)

Schedule table(schedule_date, schedule_startTime,schedule_endtime)

Appointment Table(Appointment_status)

The default sorting is appointment date . But different options can be used

The default filter is all doctors and all appointments(appointment_type)

Data from this table is Populated from the Doctor table

This column Updates the appointment status if checked to attended if time passes by 15min the system flags it as missed.

Data from this page Doctor's Lastname the system gets that information on the current logged in user and Doctor table in doctor lastname field,

The default date for the date to show appointments is the system date and the last day of the current month a doctor can choose a date to show

Data of the table come from

Patient Table(patient ID, patient_firstName,patientLastName)

Schedule table(schedule_date, schedule_startTime,schedule_endtime)

Appointment Table(symptoms)

The default sorting is appointment date . But different options can be used

The default filter is upcoming appointments for table of appointments(appointment_type)

MediBooking

Welcome Dr Mahlangu

Profile

Settings

LogOut

Dashboard

Patient List

Mini Report

Attended Appointments	Missed/Pending Appointments	Total Appointme
23	34	57

Show appointments from:

10/10/2021

To:

31/10/2021

Patient ID	Patient Name	Appointment Date	Appointment Time	Patient Symptoms	Expand
960827 5688 084	Simphiwe Machiye	10/10/2021	10:00 to 10:25	Skin Rash	
910723 5683 084	Phumzile Mahlangu	10/10/2021	10:30 to 10:55	Headache	
010224 5487 086	Pertunia Senamela	10/10/2021	11:00 to 11:25	Eye burn	
870616 5786 081	Thabile Mnguni	10/10/2021	11:30 to 12:25	Bell	
781212 5688 086	Thokozile Ndlovu	11/10/2021	10:30 to 10:55	Headach	
900913 5678 083	Lucky Maselele	12/10/2021	09:30 to 10:25	Stomachache	

Sort by:

Appointment Date

Patient Name

Show:

All Appointments

Attended Appointme

Canceled/Missed A

Pending Appointme

Update

This column
Expands appointment
details
if pressed shows prior
visit if not first user
doctor can see prvious
diagnoses/notes

Full Use Case Description

1.4. View Visit Report

Use case name:	View visit report	
Scenario:	View every attended patient list	
Triggering event:	Request for visit report	
Brief description:	Doctor would like to view a visit report of his/her patients	
Actors:	Doctor	
Related use cases:		
Stakeholders:	Patient Doctor	
Preconditions:	Attended appointments	
Postconditions:	List of attended appointments created or printed	
Flow of activities:	Actor	System
	1. Doctor logs in and re-quest a visit report 2. Doctor chooses monthly or weekly or daily report 3. Doctor view, prints or saves the report	1.1 System provides visit report form 2.2 System displays the visit report
Exception conditions	Report not found Invalid doctor's information	

Page Design

This button is used to choose appointment date that a Doctor might need to see, after pressing this button the doctor will be allowed to choose the start and the end date for the report.

This is where the Doctor chooses the Start and End date of the report and the Default start date here is Today's date

By default the data will be sorted appointmentDate. But different options can be used which are patientId and patientName

The data in this table is from Patient table(patientId,patientName); Schedule table (appointmentDate,appointmentTime) Appointment table(patientSymptoms ,appointmentStatus)

-This button is used to generate visit report after choosing everything that you want to see

-Then this shows the total number of patients visited within the selected /chosen period

By default All the appointmentStatuses will shown but in this case we only want to see Only Attended since we want to see visit report

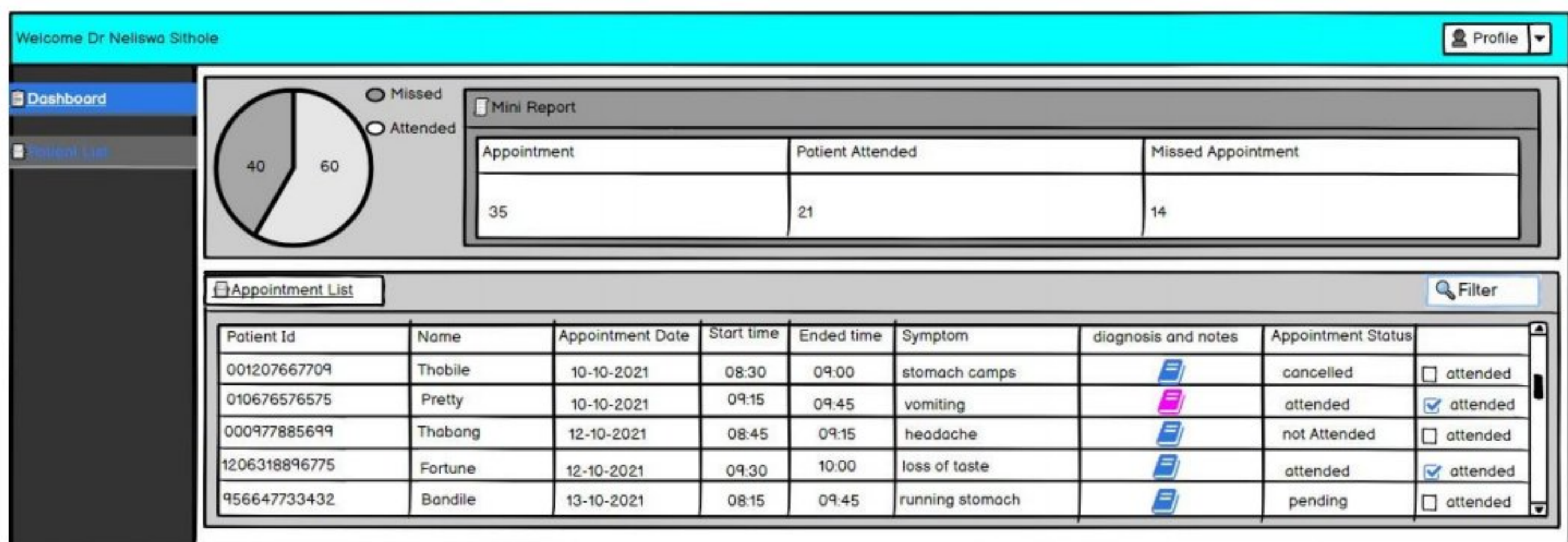
PatientID	PatientName	AppointmentDate	AppointmentTime	PatientSymptoms	Appointment Status
0010104523082	P Senamela	08/10/2021	09:15 -09:30	Shiver	Attended
9908025874082	R Makola	08/10/2021	13:00-13:15	Skin Rush	Attended
9601125818089	RR Moekwa	09/10/2021	09:45-10:00	Sore throat	Attended
7108155457088	E Chilwane	09/10/2021	11:15-11:30	Headache	Attended
8804147548082	M Hlatshwayo	09/10/2021	12:00-12:15	Boil	Attended
0108215457082	I Themba	11/10/2021	09:00-09:15	Stomachache	Attended

Full Use Case Description

1.5. Record Patient Visit

Use case name:	Record patient visit	
Scenario:	Doctor update appointment status	
Triggering event:	Appointment attendance	
Brief description:	Doctor changes the appointment status	
Actors:	Doctor	
Related use cases:	View visit report	
Stakeholders:	Patient Doctor	
Preconditions:	Appointment attendance	
Postconditions:	Appointment status updated	
Flow of activities:	Actor	System
	1. Doctor logs in and view appointment list 2. Doctors select and updates the ap-appointment status	1.1 System provides upcoming ap-ap-appointment list 2.2 System displays the appointment 2.3 System saves the up-dated appointment status
Exception conditions	Appointment not found	

Page Design




In the page design above we have the doctor logged in and all the patients in the appointment list are displayed and saved in the appointment table.

The data displayed in the table of appointment list is for all the patients who have booked to visit the doctor for consultation, the appointment status allows the doctor to record if patients have attended, not attended, cancelled and pending appointments (upcoming appointment).

The doctor has the privilege to mark the check boxes for all attended patients and not to mark all patients who have not attended.

Also, the diagnosis and notes icon can be selected in each patient and allow the doctor to write are patient clinical notes and diagnosis, the doctor can filter using the filter button futhermore use the filter to sort using all different headings.

Welcome Dr Neliswa Sithole		Profile
<div>  Dr Neliswa Sithole Welcome To Pretty's prescribe notebook </div>		
Firstname : Pretty Lastname : Phindeka Gender : Female Phone : 0796752429 Email : 219034881@tut4life.ac.za Status : Attended		
Symptoms: Vomiting		
Diagnosis:	Take JARDIANCE or METFORMIN(Fortamet, Glumetza) medication for loweringglucose production in the liver and improving your body's sensitivity to insulin so that your body uses insulin more effectively.	
Clinical notes:	Experiencing nausea and vomiting with diabetes may be related to blood sugar, treatments for diabetes, or an effect of complications associated with diabetes. While these symptoms are common and can be managed once their cause is discovered, sometimes they are an indication of a serious condition associated with your diabetes.	
		← diagnosis history ← Done

Once the icon in the appointment table for diagnosis and notes field is selected, this page is going to be open, and the doctor will be able to see patient details with the doctor is currently treating and record the patient diagnosis and notes for that patient.

The record will be stored or save in the appointment table (appointment diagnosis and appointment notes fields).

The diagnosis history button it will allow the doctor to view all records of the current patient diagnosis this is saved and recorded in the appointment table (appointment diagnosis and appointment notes fields).