



## Cardiology

### User Manual For Cardiology Modules

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JAZZ-GarajCloud



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## INTRODUCTION

Welcome to the Cardiology Department Modules of the TibbIT Hospital Management Information System. This module streamlines the process of managing cardiology patients' related details. This manual will guide you through the various features and functionalities of the Tibb Information Technology (TibbIT) HMIS software. **It is the DICOM Module where the patient's reports will appear in an imaging form.**

## SYSTEM OVERVIEW

TibbIT is designed with a user-friendly interface, making it easy for hospital staff to navigate and utilize its features. TibbIT is designed to enhance patient care and improve overall efficiency within the hospital, by integrating various modules such as patient management, appointment scheduling, and reporting. TibbIT provides healthcare services to patients. TibbIT aims to simplify the day-to-day operations like Allotting unique numbers to the registered patients to proceed with the process of the cardiology **DICOM** Modules.

The devices used to perform cardiology-related investigations are integrated into the system so that the results of the investigations can easily be shown on the PACS Server.

## GETTING STARTED WITH THE CARDIOLOGY MODULES

**TibbIT** provides a range of services for the patient through the assistance of the receptionist, including:

1. Patient check-in and check-out.
2. Generating Service IDs for the Patients.
3. View DICOM images of the patient's investigations.
4. Entertain Patients with their finalized reports.

To start with the **TibbIT Software**, the following steps lead towards the **CARDIOLOGY** Module:

1. Connect to the Network.
2. Open any of your Web Browser.
3. Write the IP or Link Address in the URL bar i.e. [tibbit.garajcloud.com/login](http://tibbit.garajcloud.com/login)
4. Click **ENTER** to proceed with the Link Address.

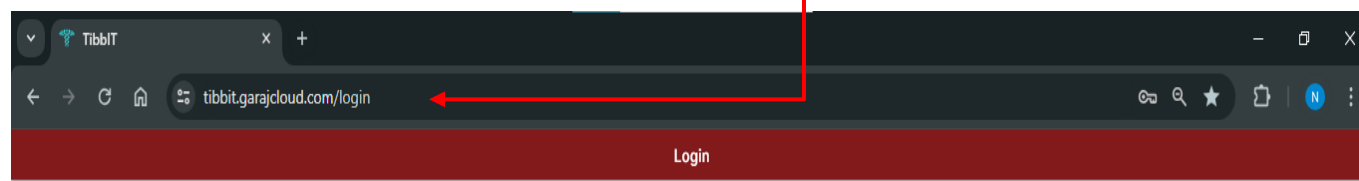


Fig. 1: Link Address

Insert **User ID** (an entity used to identify the user like a name or phone number).

Insert **Password** as \*\*\*\*\* to log into the Account.



5. Login with your credentials provided by the hospital administrator.

To see the **password**, press the eye icon.

6. Press the **LOGIN** Button to Log into the Dashboard.

*Note: Password must be Uppercase, Lowercase, Special Characters, and Numbers.*

Fig. 2: TibbIT Login

## HOME SCREEN PAGE

Upon login, the page will be directed to the Home Screen which refers to the successful login; otherwise, proper **credentials** are required to log in.

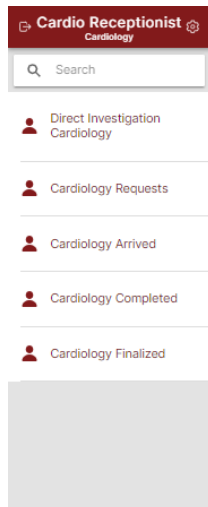


Fig. 3: TibbIT Cardiology Homepage

## CARDIOLOGY INVESTIGATION MODULE

This Module is only flexible or effective for the TibbIT registered patients to have their uniquely generated lab numbers for the process of their lab investigations. The Direct Investigation module allows receptionists to enter patient encounter numbers, view patient data, select specific tests, and generate token numbers or service IDs for the selected tests. The workflow of the cardiology module is that when the patient having an appointment slip arrives at the cardio-test performing area, the medical officer (MO)

inserts the **Visit Encounter Number**, which is on the appointment slip, in the cardiology investigation module. After selecting the test, the module then generates the **SERVICE ID** against the selected tests. The generated **SERVICE ID** is used throughout the process of the cardiology test.

**STEPS:**

1. Enter the patient encounter number.
2. View the patient's data.
3. Select the specific tests.
4. Save the selected tests and generate a token number or service ID.

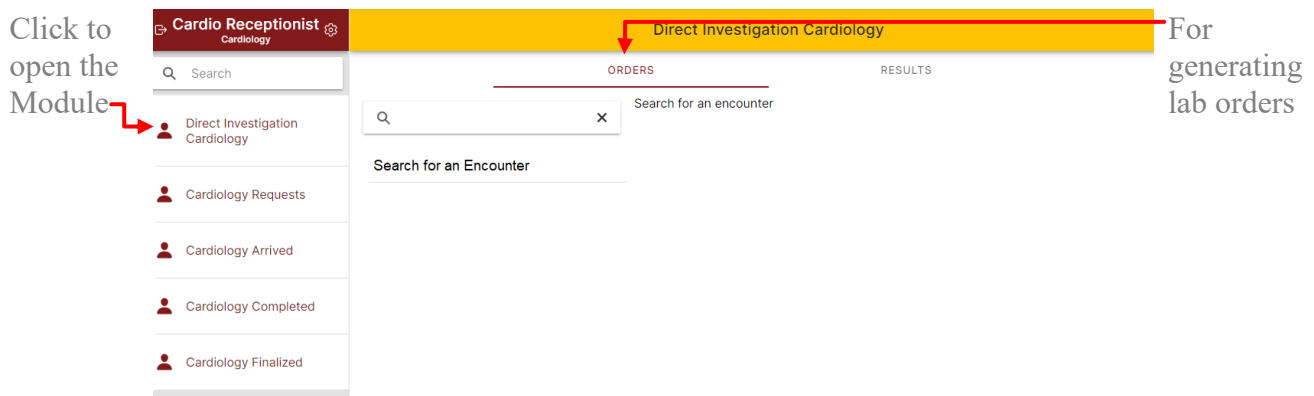


Fig. 4: TibbIT Direct Investigation Module

**PRINT PREVIEW**

After saving the selected tests, a print preview is available for the receptionist to review the selected tests and print the token number or service ID for the patient. Patients can have their token number slip as a regular A4 Print or a thermal print.

**• VISIT ID**

VISIT ID is unique for the multiple departments and changes at every visit. This is because of the tests assigned or suggested by the different doctors which is easy to differentiate tests for the different departments.



Fig. 5: Appointment Slip

• ORDER SECTION

At the homepage, a search bar is given which guides the user or “Lab Receptionist” to insert or put “VISIT ID” here. Clicking the text area allows the user to write the encounter number or visit ID here leads to the next page of the screen.

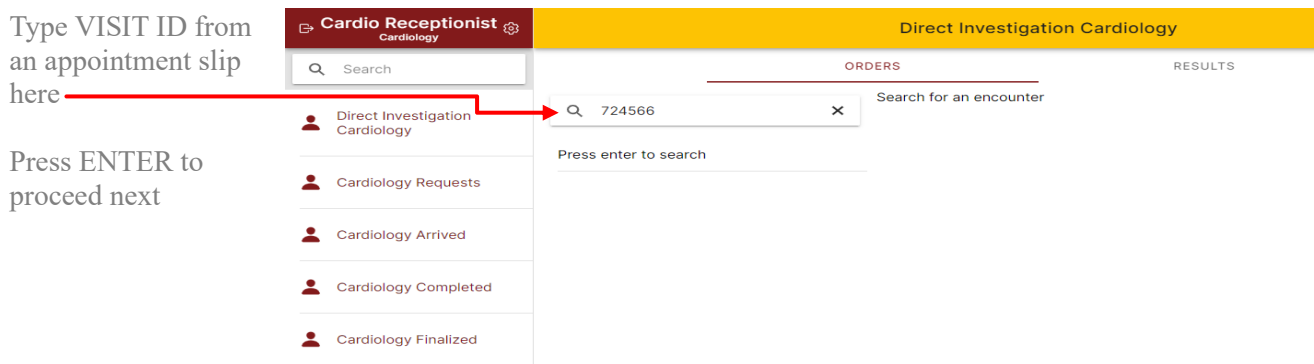


Fig. 6: Encounter Search

After clicking **ENTER** the following screen appears showing the Patient’s details, a **search bar** with a dropdown (on click), and a **List of Tests** selected from the dropdown for the particular patient.

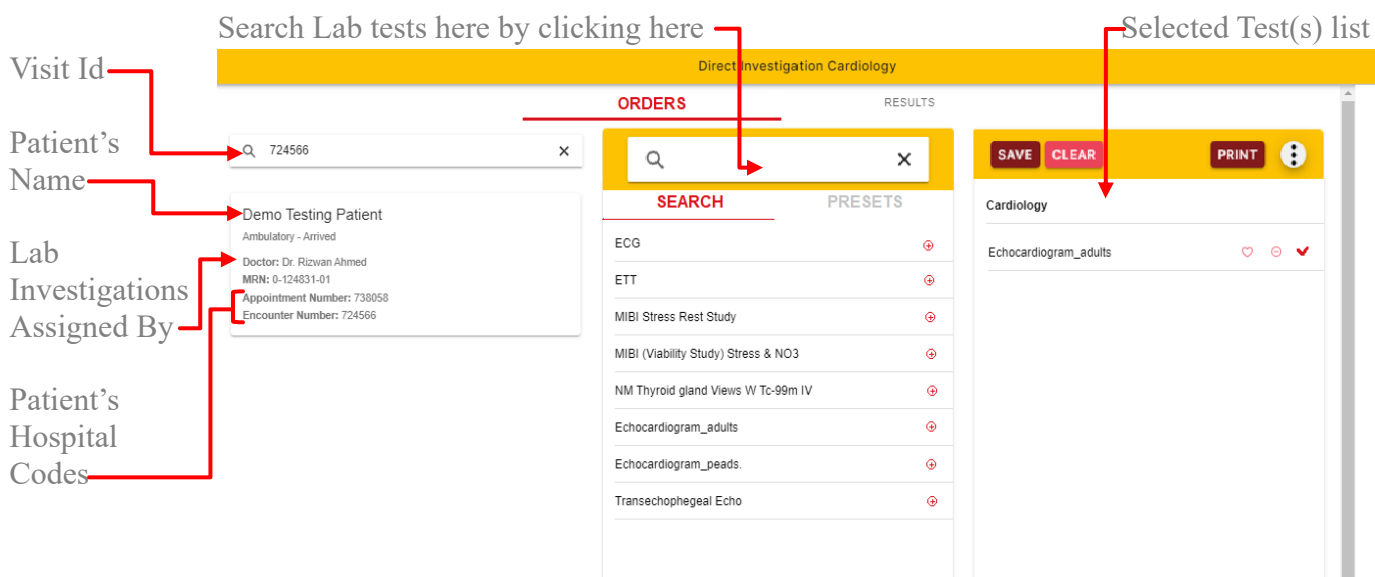
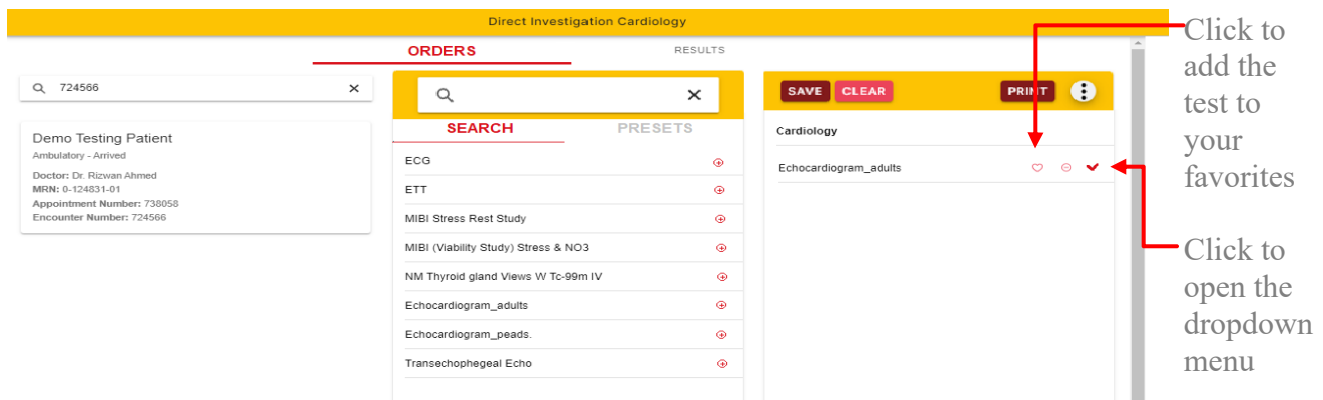


Fig. 7: Patient details and test selection area

On clicking the search bar for selecting the tests a dropdown appears showing the list of the test to be selected. The flow of this process is to select the search bar type the initial letters or the test names to be selected then use the **TAB** key to go through the drop-down then hit **ENTER** to select the desired test.

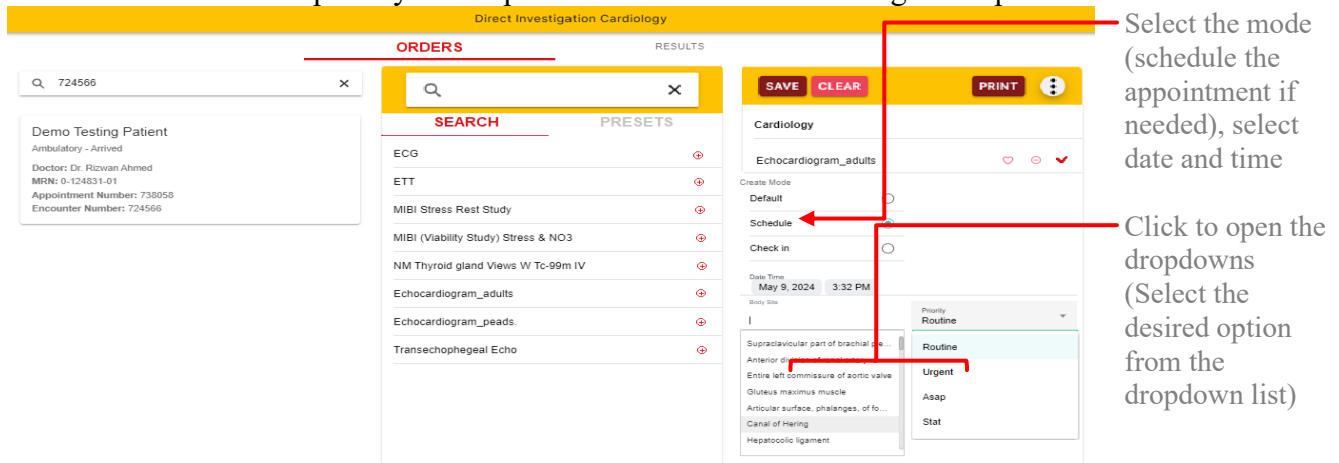


Click to add the test to your favorites

Click to open the dropdown menu

Fig. 8: Assigning test

With the selected test a dropdown button appears having fields of body site dropdown where the sample will be collected and the priority set dropdown to be selected according to the patient's condition.



Select the mode (schedule the appointment if needed), select date and time

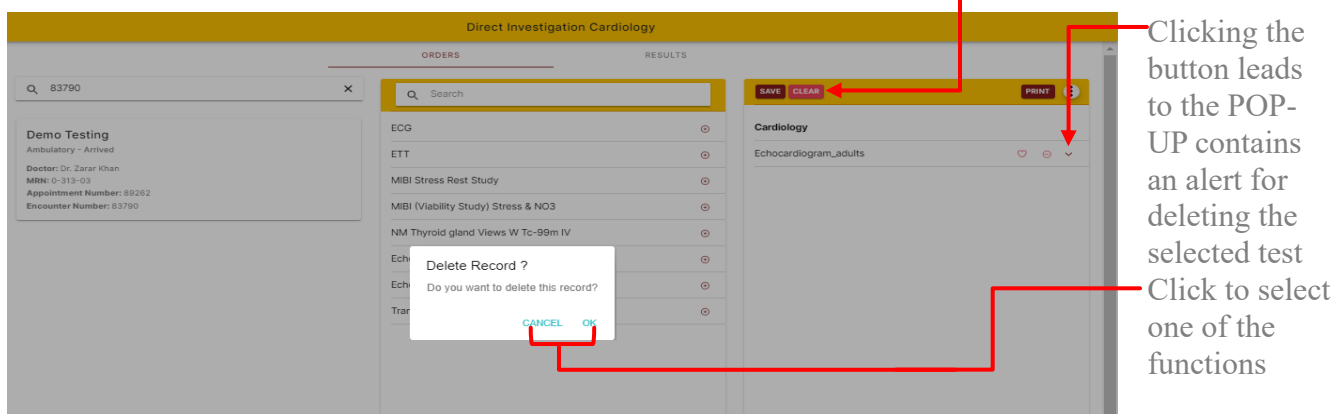
Click to open the dropdowns (Select the desired option from the dropdown list)

Fig. 9: Selected test dropdown

### • CLEAR SELECTED TEST

The Lab Orders page also contains an option for deleting the test in case of select the wrong test. It helps to remove the test so that the user can add the correct ones.

The Whole Selected test area can also be deleted by clicking on the CLEAR Button



Clicking the button leads to the POP-UP contains an alert for deleting the selected test

Click to select one of the functions

Fig. 10: Clear test

## • PRINT OPTIONS

The orders page has a dropdown for selecting one of the options for printing the investigation number. Small print gives a print from a thermal printer whereas Regular print is from the A4 printer.

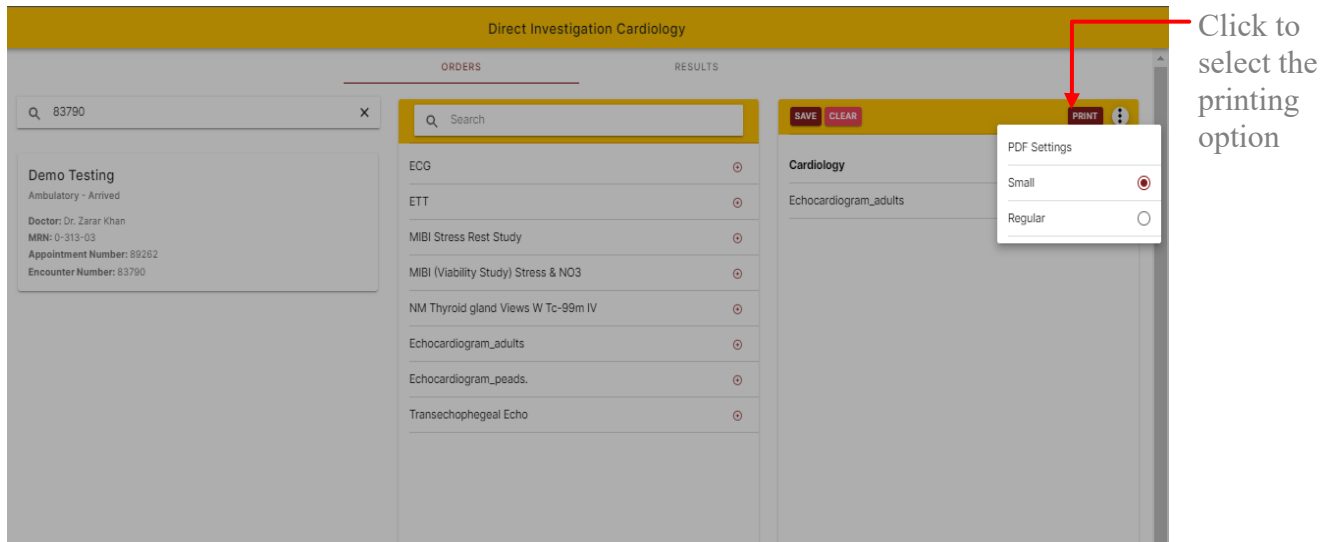


Fig. 11: Print options

## • SAVE INVESTIGATIONS

After selecting the desired option for printing the token, the following button leads towards the printable form of the selection.

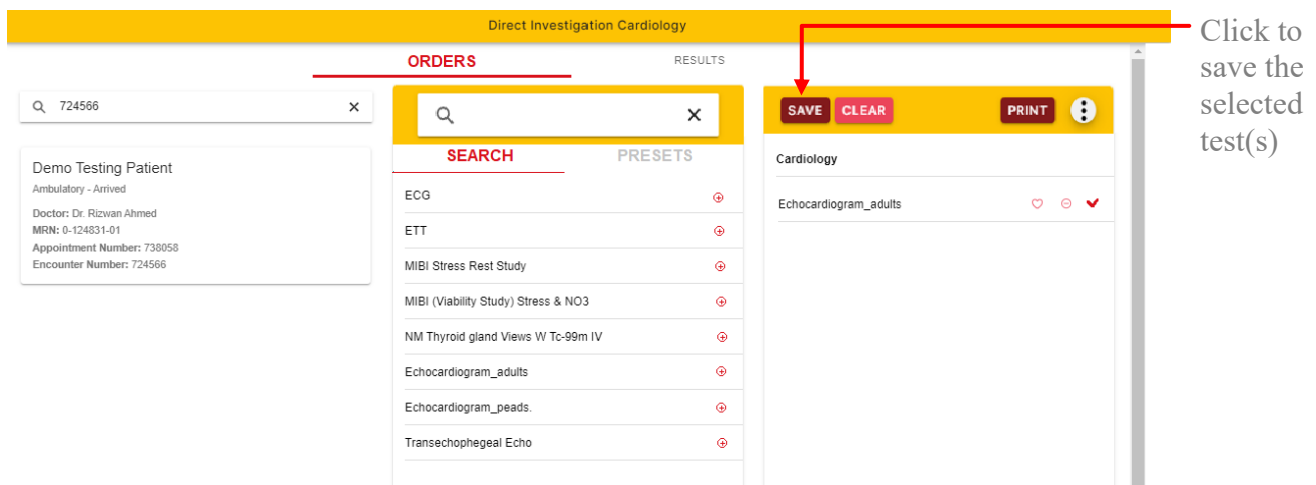


Fig. 12: save investigations

On clicking the SAVE button print preview with its specific selection appears having certain information in it.



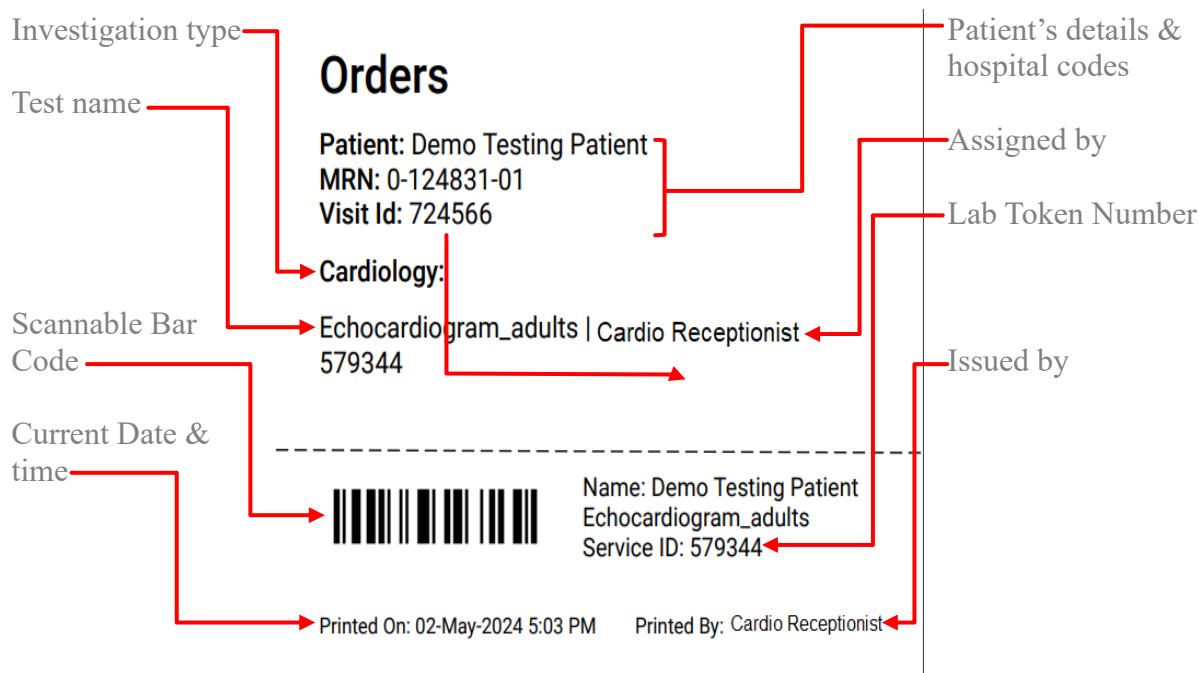


Fig. 13(a): small print (single test) (thermal token)

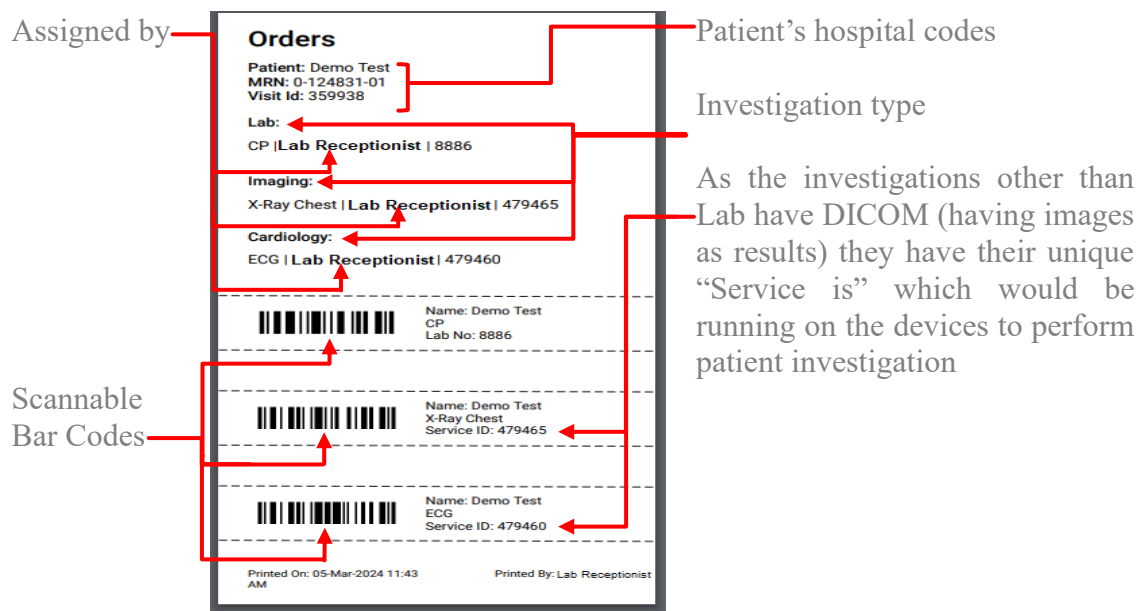


Fig. 13(b): small print (multiple test) (thermal token)

Scannable MRN and Visit ID

Patient's Details

Reason(s) for having lab investigations

For accessing the mobile application to have reports

Investigation Information/Details

Organization : Federal Government Polyclinic (FGM) Islamabad  
 Department Name : Medical OPD Male (Morning) (R-174) Sub department : N/A  
 Patient Name : Demo Test Father/Husband Name : Father Name  
 Birth Date : 1984-07-01 Age : 39 years, 8 months, 4 days  
 Gender : Male Practitioner Name : Dr. [Redacted]  
 Address : Address, Islamabad, Pakistan

Service number	Lab Number	Test	Ordered By
463682	8831	CP	demo receptionist

Problems  
 Cough (R05)  
 Typhoid fever (A01.0)  
 Headache (R51)  
 Multiple myeloma in remission (C90.01)

Printed On: 05-Mar-2024 11:24 AM  
 Printed By: Lab Receptionist

Fig. 13 (c): Regular print

## REPORTING

After generating and proceeding with lab investigations, the **RESULT** Section of the Direct Investigation Module helps in generating Reports for the selected investigations.

Select the search mode in which reports need to be searched

Reporting Section

Select the starting and ending date & time from which reports are being searched

Start Date: Feb 2, 2024 7:00 PM  
 End Date: Mar 2, 2024 6:59 PM

Search Mode: Visit ID

Visit ID  
 Lab Number  
 MRN  
 Service Request Number

Service	Service ID / Lab#	Patient	Status	Priority	Doctor	Note	Operation
---------	-------------------	---------	--------	----------	--------	------	-----------

Fig. 14: Reporting section

Printable reports have the status of **FINISHED** while uncomplete reports have the status of either **SPECIMEN COLLECTED** or **IN PROGRESS**.

## SEARCH MODES

A test report can be searched by the following search modes which are needed to be added for tracking the patients' lab reports by any possible method.

### SEARCH BY VISIT ID

The VISIT ID which is shown in Fig. 5 (appointment slip) is needed if the patient misplaced his/her lab number slip and wants to have the lab reports so VISIT ID is one of the solutions to track the reports.

Enter the number according to the search mode here

Performed test

Click to open dropdown

Click to view the details of the test performed

Click to print a/c to the need

Fig. 15 (a): Search by VISIT ID

### SEARCH BY LAB NUMBER

The lab number is the basic and main search mode by which a report can be traced. It is generated directly by the Lab receptionist against the visit ID of the patient.

Shows that the report is finalized

Fig. 15 (b): Search by Lab Number

- **SEARCH BY MRN NUMBER**

The MRN is the other option if, for any reason, reports can't appear by the VISIT ID or the LAB NUMBER.

**NOTE:** Use a dash (-) or write the MRN as it is in its format i.e. 0-124831-01

Direct Investigation Cardiology							
ORDERS				RESULTS			
Service	Service ID / Lab#	Patient	Status	Priority	Doctor	Note	Operation
Head&neck&Neck	19947 / N/A	Demo Testing	Checked In	routine			⋮
pecial Ultrasound	19948 / N/A	Demo Testing	Checked In	routine			⋮
IT Spine	19949 / N/A	Demo Testing	Finished	routine			⋮
IT Chest	19950 / N/A	Demo Testing	Checked In	routine			⋮
IT Lower Extremities	29865 / N/A	Demo Testing	Checked In	routine			⋮
ardiac Enzymes (CPK, LDH, GOT,CKMB)	4523 / 2052	Demo Testing	Specimen Collected	routine			⋮
ardiac Enzymes (CPK, LDH, GOT,CKMB)	65477 / 3099	Demo Testing	Specimen Collected	routine			⋮
chocardiogram_peads.	101663 / N/A	Demo Testing	Finished	routine			⋮
chocardiogram_peads.	101676 / N/A	Demo Testing	Finished	routine			⋮

Shows that the test or the sample is still pending to work on or scheduled to process

Fig. 15 (c): Search by MRN

- **SEARCH BY SERVICE REQUEST NUMBER**

It is mostly needed for reports other than LAB categories like cardiology, radiology, imaging, etc. It is because these categories have DICOMS or imaging in it and form a graphical or visuals as output or result. These tests generated a Service Request Number as it has to be inserted on DICOM devices. A separate Data Server is present or connected with the network named PACS Server to view the DICOMS on it. Lab category tests also show or generate service request numbers that aren't very interlinked with any external devices.

Direct Investigation Cardiology							
ORDERS				RESULTS			
Service	Service ID / Lab#	Patient	Status	Priority	Doctor	Note	Operation
CT Lower Extremities	29865 / N/A	Demo Testing	Checked In	routine			⋮

Action

Open Dicom

Fig. 15 (d): Search by Service Request Number

On clicking **SHOW ACTIVITY** from the above dropdown list, a pop-up appears having the time of submitting a sample, time of completing/performing the sample, sample test performed, and reports signed by with the performer details.

**Report Activity**

<b>Requested On</b> Jul 20, 2023, 10:32:54 AM	<b>Completed On</b> Jul 21, 2023, 10:26:58 AM
<b>Completed By</b> Dr. demo provider	<b>Signed On</b> Jul 21, 2023, 10:28:07 AM

**Save Trail**

**Cardio Receptionist**  
Timer: Jul 21, 2023, 10:26:58 AM  
 Mobile: 03XXXXXXXXXX

CANCEL

Fig. 16: Show Activity

After clicking the desired option for the print, a preview of the completed reports appears having the patient details, and test details with its perimeters.

**Federal Government Polyclinic (PGMI) Islamabad**  
**Lab Report**

MRN  
  
 0-124831-01

Visit ID  
  
 724566

Lab Number : 1432	Entry Date : 08-Mar-2024 2:08 PM	
MRN : 0-124831-01	Department : Medical Unit-1(0-140) (Task/Fil)	
Patient Name : Demo Test	Father/Husband Name : Father Name	
Birth Date : 1984-07-01	Age : 39 years, 8 months, 7 days	
Weight : N/A	Gender : Male	

Test	Results	Reference Range	Units
<b>Haematology</b>			
<b>CP</b>			
<b>Blood Complete Picture</b>			
WBC Count	6	4 to 10	10 <sup>3</sup> /uL
RBC Count	4.0	3.8 to 4.8	10 <sup>6</sup> /uL
Haemoglobin	12	12 to 15	g/dL
Hematocrit	40	36 to 46	%
MCV	100	83 to 101	fL
MCH	30	27 to 32	pg
MCHC	32.3	31.5 to 34.5	g/dL
RDW-SD	40	39-46	fL
Platelets	350	150 to 410	10 <sup>3</sup> /uL
<b>Differential Count</b>			
Neutrophils	60%	40 to 60	%
Lymphocytes	40	25 to 45	%
Mixed	15	11 to 16	%
Monocytes	10	2 to 12	%

Printed On: 08-Mar-2024 2:15 PM

Disclaimer: This report is based on the results of our laboratory experiments and our interpretation of those results. While we took every effort to ensure the accuracy of our data, there may be limitations or errors that could have affected the results. Furthermore, our study was conducted under specific conditions that may not be applicable to other situations or populations. Therefore, any conclusions drawn from this report should be considered in light of these limitations. Finally, we certify that this report is the result of our own work and that any services used have been properly cited.

Printed By: Noor Ul Lab Technician

Fig. 17: Reporting Print Preview

## TIBBIT SETTINGS

Tibbit provides some setting options to entertain the user. These settings are essential or basic for a user to have them. These settings include:

1. Change Password
2. Clear Cache



Fig. 18: Settings

If the Hospital’s Administration grants the user an authority to change the Password, then on clicking “**CHANGE PASSWORD**” option mentioned below drop-down appears having several fields for changing password

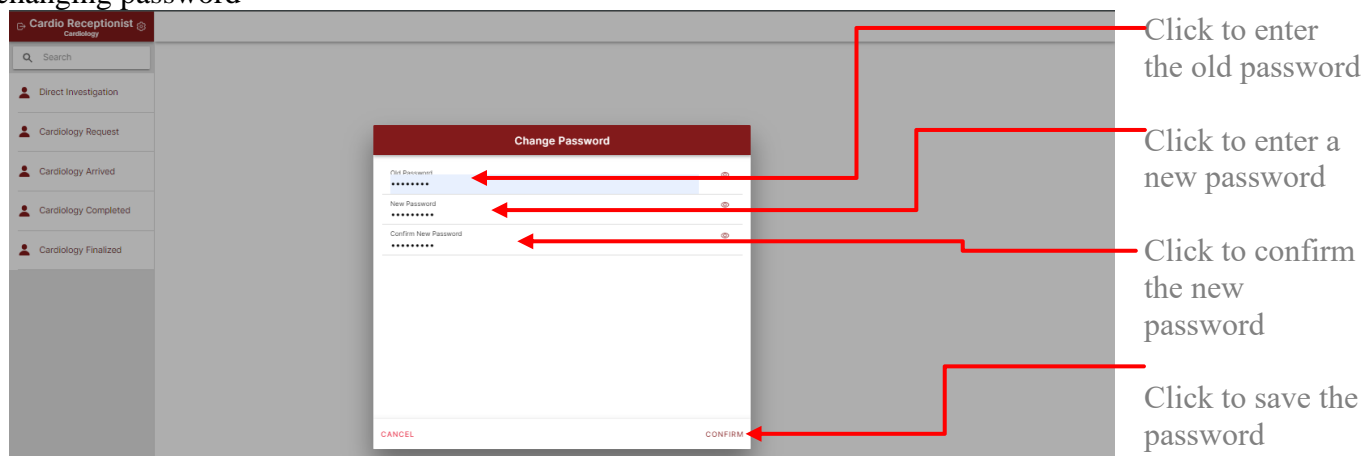


Fig. 19 (a): Change Password

If the user faced any instability regarding using the software, then the other option than the change password is effective in this way. Clicking “**CLEAR CACHE**” will lead to the alert box indicating the **CONFIRM** button to clear it.

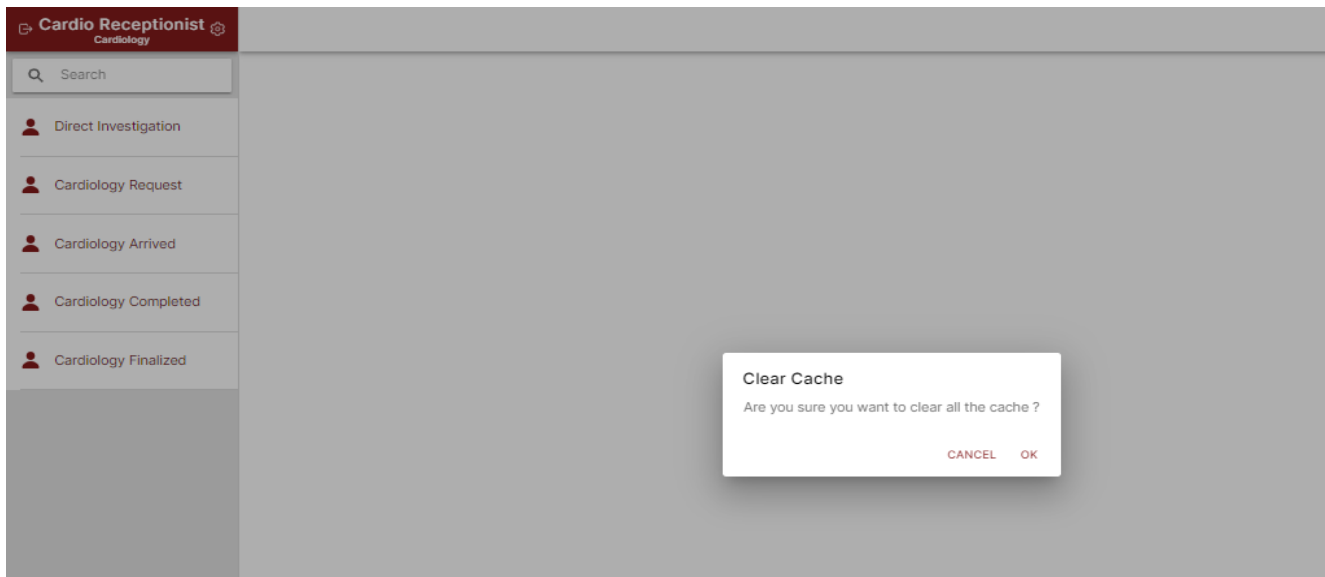


Fig. 19 (b): Clear Cache

## LOGOUT FROM THE TIBBIT SOFTWARE

To close or take yourself out from the Tibbit Software, the mentioned button on the Home Screen gives that availability to do so.

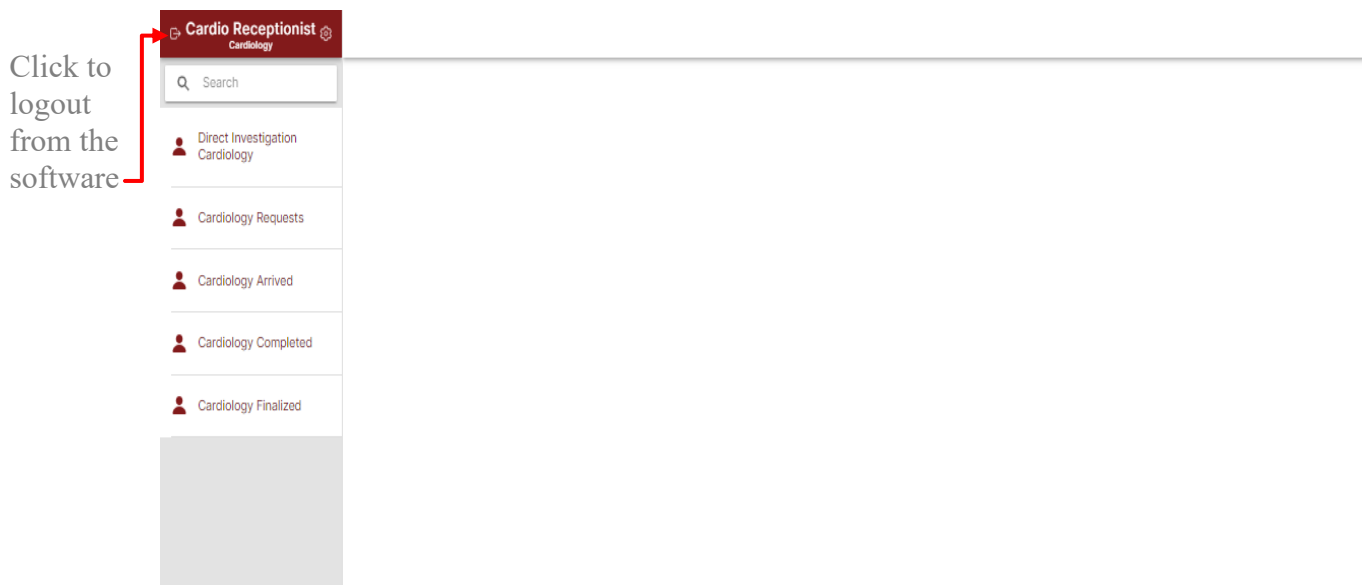


Fig. 20: Logout

### Cardiology Request

In the Cardiology Request module, receptionists can view patient data with service IDs and schedule tests based on availability.

#### Steps:

1. View the patient's data with the service ID.
2. Schedule tests or check availability.

3. Save the data and proceed.

### **6. Cardiology Arrived**

Once tests are scheduled or availability is checked, data moves to the Cardiology Arrived section. Here, receptionists can choose between the ACTION function (view test templates) or view DICOM (view test results in imaging form).

#### **Steps:**

1. Choose between the ACTION function or view DICOM.
2. View selected test templates or test results in imaging form.
3. Save templates and test results.

### **7. Cardiology Completed**

In the Cardiology Completed module, authorized receptionists sign test templates and can print test reports.

#### **Steps:**

1. Authorize and sign test templates.
2. Print test reports.

### **8. Cardiology Finalized**

The Cardiology Finalized section contains all reports with finalized status. Here, users can view and print reports, including previous ones.