



Quality service is our strength

Cystal Technology Bangladesh Ltd. (cTech) follows and implements best practices for ICT development, automation, project management, quality control and quality assurance to ensure that projects are delivered to clients with the highest quality and minimal cost within schedule. Our team consists of highly dedicated and experienced members such as project managers, programmers, QA engineers, documentation specialists, trainers and support personnel who are capable of implementing and sustaining the project in the short, medium and long term.



Crystal HIS

Crystal Hospital Information Systems (Crystal HIS) is an open source and web based software. Which is comprehensive, integrated information system designed to manage all the aspects of a hospital operation, such as medical, administrative, financial, and legal and the corresponding service processing. Crystal HIS is very accurate in its approach and suit all environments including large, medium or small size hospitals. Crystal HIS enables hospitals and doctors to better serve their patients. This system offers paperless environment and accelerate administrative process.

A Complete Solution for Hospital and Diagnostic Center...



Crystal Technology Bangladesh Ltd.

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- | | | | |
|----|--|----|--|
| 01 | Registration | 12 | Operation Theatre Management System |
| 02 | OPD (Out Patient Department) | 13 | Electronic Medical Record Management |
| 03 | IPD (In Patient Department Management) | 14 | Linen & Laundry |
| 04 | Laboratory | 15 | Inventory Management |
| 05 | Emergency Department | 16 | Radiology & Imaging |
| 06 | Pharmacy Control | 17 | Nursing & Doctor Workbench |
| 07 | Material Management | 18 | Human Resource Management |
| 08 | Billing | 19 | PACS |
| 09 | Accounts & Finance | 20 | Laboratory Interfacing System (LIS) |
| 10 | Blood Bank | 21 | User Control Security and Administration |
| 11 | Information/Scheduling | | |

Development Tools

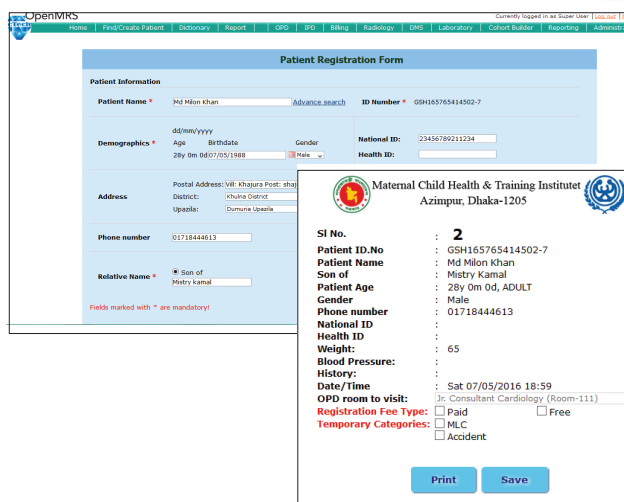
Front end : JQuery, HTML, XHTML, JSP
 Application Framework : Spring
 Language Used : Java
 Data Model : REST API
 Database : MySQL
 ORM Tools : Hibernate
 Reporting Tools : Jasper report, BIRT report

Patient Registration & Appointments

This module maintains doctor's appointment (walk in and future), registers patient with relevant information (Hospital ID, Name, Address, Age, Sex, DOB, Photograph etc.) to keep and track records for current and future references.

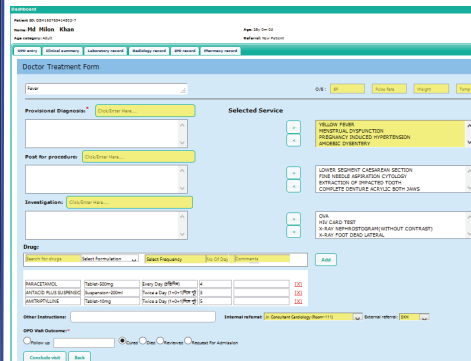
Registration

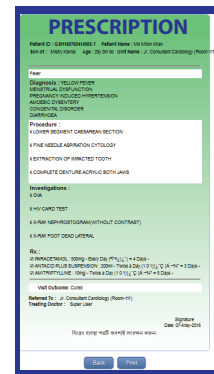
1. New patient registration
2. Patient details information
 - i. Patient ID
 - ii. Fathers / Mothers name
 - iii. Date of Birth
 - iv. Health ID
 - v. Birth Registration
 - vi. Mobile No.
 - vii. Address



Out Patient Management

This module prepared for the physicians to keep detailed record on patient clinical information. It provides opportunity to request required investigation, drugs, diagnosis (ICD 10) and finally generate prescription for the patients.

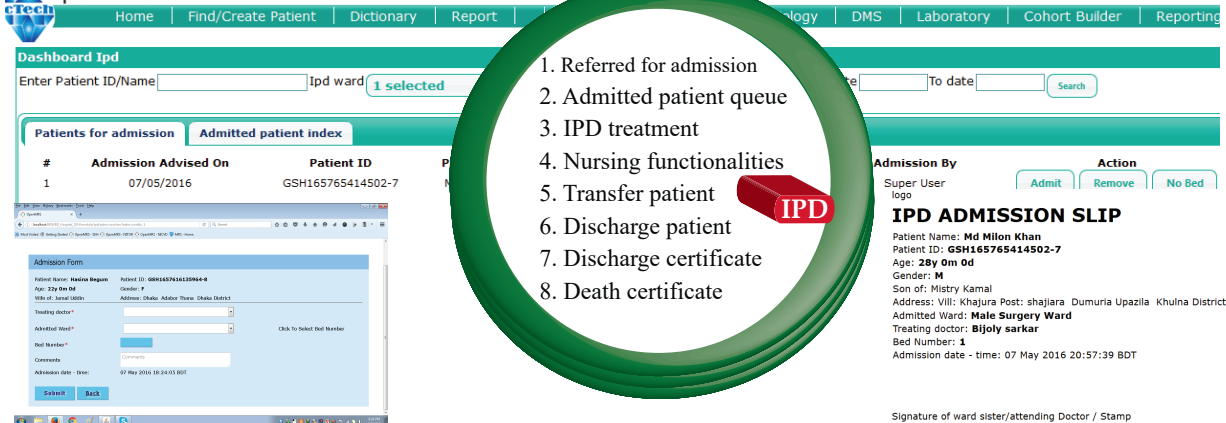




In Patient (Ward) Management

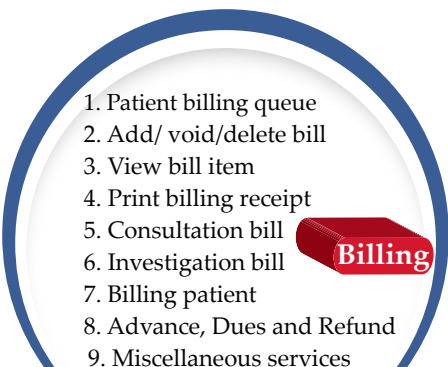
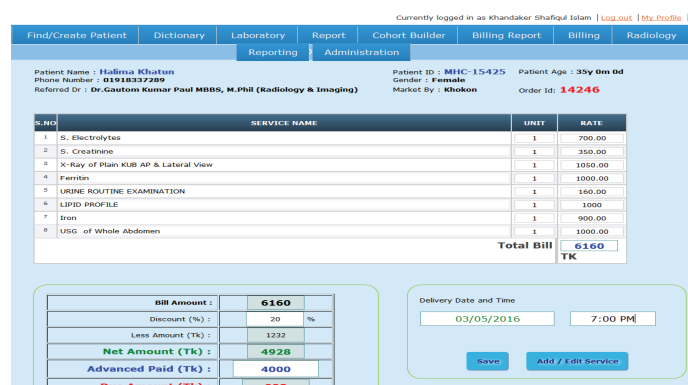
In patient or ward management module prepared for those patients who were recommended for admission at hospital. This module also provides opportunity to keep record on doctors' visit, patient clinical information, request required investigation, drugs, diagnosis (ICD 10), pathology, imaging and other advises to nurses by using both computer and mobile devices with barcode system. Prepare patient case sheet/summery and patient discharge certificate.

OpenMRS



Billing

Billing system is highly automated and proven systems that optimize workflow, provide real-time system interoperability, and include robust safeguards that reduce errors, and compliance risk. Our solution is specifically designed to improve the accuracy of claims submissions, increase cash collections, ensure compliance, and supply unique visibility into opportunities for growth.

| S.NO | SERVICE NAME | UNIT | RATE |
|-------------------|--------------------------------------|------|-------------|
| 1 | S. Electrolytes | 1 | 700.00 |
| 2 | S. Creatinine | 1 | 350.00 |
| 3 | X-Ray of Plain KUB AP & Lateral View | 1 | 1000.00 |
| 4 | Ferritin | 1 | 160.00 |
| 5 | URINE ROUTINE EXAMINATION | 1 | 1000.00 |
| 6 | LIPID PROFILE | 1 | 900.00 |
| 7 | Iron | 1 | 1000.00 |
| 8 | USG of Whole Abdomen | 1 | 1000.00 |
| Total Bill | | | 6160 |

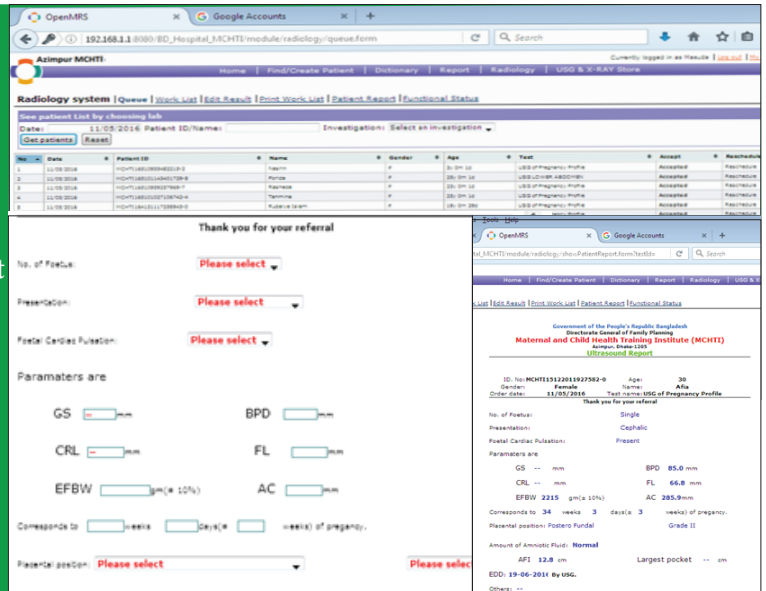
| Billing Summary | |
|-----------------------------|-------------|
| Bill Amount : | 6160 |
| Discount (%) : | 20 % |
| Less Amount (Tk) : | 1232 |
| Net Amount (Tk) : | 4928 |
| Advanced Paid (Tk) : | 4000 |
| Due Amount (Tk) : | 928 |

Delivery Date and Time: 03/05/2016 7:00 PM

Radiology

Radiology module is one of the important module for Hospital and Diagnostic Center, enabling a center to operate more efficiently in every aspect. With the right suite of solutions, centers are able to create effective workflow, read more images faster.

1. Patient queue for Radiology investigation
2. Accept or Rescheduling
3. Input, edit, print radiology investigation result
4. Find patient's report
5. Functional status
6. Integrated with PACS

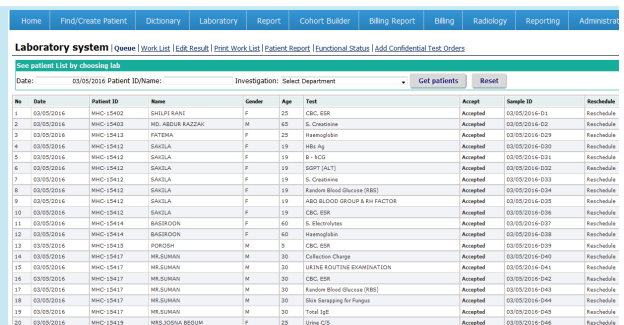


The screenshot displays the Radiology system interface. The top section shows a patient queue with columns for No., Date, Patient ID, Name, Gender, Age, Test, Accept, and Reschedule. Below this, there is a 'Thank you for your referral' section with fields for No. of Foetus, Presentation, Fetal Cord Position, and Parameters (GS, BPD, CRL, FL, EFW, AC). The bottom section shows a detailed patient report for a patient named 'MCHT15121212121212121212' with a date of 13/05/2016. The report includes a 'Thank you for your referral' message, a 'Comment of the Radiologist' (Dr. MCHT15121212121212121212), and a 'Maternal and Child Health Training Institute (MCHTI)' logo. The report also includes a 'No. of Foetus' (Single), 'Presentation' (Cephalic), 'Fetal Cord Position' (Present), 'Parameters are' (GS: 85.0 mm, BPD: 66.8 mm, CRL: 235 mm, FL: 285.9 mm, EFW: 2315 gm, AC: 285.9 mm), 'Corresponds to' (34 weeks 3 days), 'Placental position' (Posterior Fundal), 'Amount of Amniotic Fluid' (Normal), 'AFI' (12.8 cm), 'Largest pocket' (10.0 cm), and 'EDD' (19-06-2016 by USG).

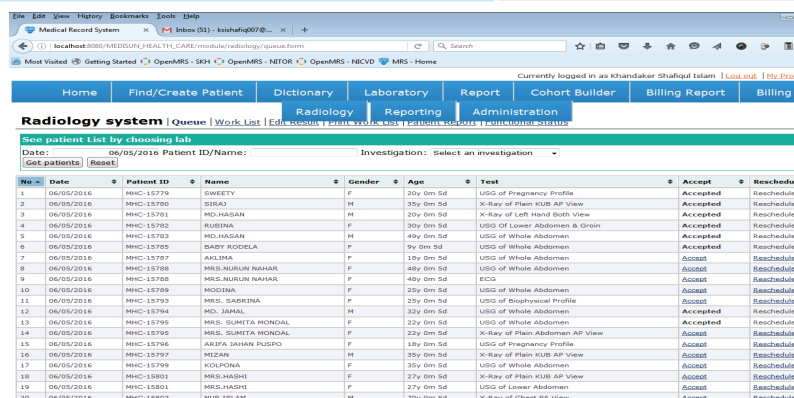
Pathology

This module covers all ranges of diagnostic test requested from OPD, IPD and Emergency. It will also generate sample collection label with barcode to reduce human error. Final report will be provided with digitalized signature of authorized person and will be displayed to consultant, emergency ward and nurse station as well as report will be delivered to the patients through email (if any).

1. Patient queue for lab investigations
2. Accept or Rescheduling investigation date
3. Input, edit, print radiology investigation result
4. Find patient's report
5. Functional status (enable/disable) of all laboratory investigations
6. Integrated with LIS



The screenshot displays the Pathology system interface. The top section shows a patient queue with columns for No., Date, Patient ID, Name, Gender, Age, Test, Accept, Sample ID, and Reschedule. The table contains 20 rows of patient data, including names like 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', and 'MCHT15121212121212121212'. The 'Test' column lists various laboratory tests such as 'CBC', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', and 'HbA1c'. The 'Accept' column shows 'Accepted' for all entries. The 'Sample ID' column shows '01/05/2016-01', '01/05/2016-02', '01/05/2016-03', '01/05/2016-04', '01/05/2016-05', '01/05/2016-06', '01/05/2016-07', '01/05/2016-08', '01/05/2016-09', '01/05/2016-10', '01/05/2016-11', '01/05/2016-12', '01/05/2016-13', '01/05/2016-14', '01/05/2016-15', '01/05/2016-16', '01/05/2016-17', '01/05/2016-18', '01/05/2016-19', and '01/05/2016-20'. The 'Reschedule' column shows 'Reschedule' for all entries.



The screenshot displays the Pathology system interface. The top section shows a patient queue with columns for No., Date, Patient ID, Name, Gender, Age, Test, Accept, Sample ID, and Reschedule. The table contains 20 rows of patient data, including names like 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', 'MCHT15121212121212121212', and 'MCHT15121212121212121212'. The 'Test' column lists various laboratory tests such as 'CBC', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', 'HbA1c', and 'HbA1c'. The 'Accept' column shows 'Accepted' for all entries. The 'Sample ID' column shows '01/05/2016-01', '01/05/2016-02', '01/05/2016-03', '01/05/2016-04', '01/05/2016-05', '01/05/2016-06', '01/05/2016-07', '01/05/2016-08', '01/05/2016-09', '01/05/2016-10', '01/05/2016-11', '01/05/2016-12', '01/05/2016-13', '01/05/2016-14', '01/05/2016-15', '01/05/2016-16', '01/05/2016-17', '01/05/2016-18', '01/05/2016-19', and '01/05/2016-20'. The 'Reschedule' column shows 'Reschedule' for all entries.



Pharmacy Control

Crystal HIS has identical pharmacy management system for pharmacy. Both the system has the option for placing purchase order of products from central store, distribution to other relevant departments, sale/issue to patients (with instructions) and return to store. This system will allow configuring product details such as setting TP, actual cost price, MRP, sale price as well as alarm expiry data of products. Finally, it creates stock ledger, consumption and requirement analysis of the product.

Detail drug indent...

| # | Category | Name | Formulation | Quantity indent | Batch No. | Date of expiry | Company name | Transfer quantity |
|----|------------|-----------------------------|-------------------|-----------------|-------------------------|----------------|-----------------------|-------------------|
| 1 | Infusion | INFUSION 5% DA | Infusion-1000ml | 300 | 68 | 31/12/2018 | Monarch Establishment | 300 |
| 2 | Infusion | INFUSION 5% DNS | Infusion-1000ml | 300 | 68 | 31/12/2018 | Monarch Establishment | 300 |
| 3 | Infusion | Infusion Lactide | Infusion-1000ml | 300 | N/A | N/A | N/A | 0 |
| 4 | Infusion | INFUSION HARTMAN'S SOLUTION | Infusion-1000ml | 300 | 88 | 31/01/2018 | Monarch Establishment | 300 |
| 5 | Injection | LINEAL/ANTHETIC OXYTOCINE | Injection-10 L/Um | 2000 | 88 | 31/12/2018 | Monarch Establishment | 2000 |
| 6 | Antibiotic | CEFTIAZIME | Injection-1g | 300 | N/A | N/A | N/A | 0 |
| 7 | Antibiotic | CEFTIOXIME | Injection-750mg | 300 | N/A | N/A | N/A | 0 |
| 8 | Antibiotic | CEPHRADIN | Injection-500mg | 600 | N/A | N/A | N/A | 0 |
| 9 | Antibiotic | GENTAMYCIN | Injection-80mg | 500 | 013414-01381430/11/2016 | 20/02/2019 | EDCL | 500 |
| 10 | Analgesic | DICLOFENAC | Injection-5mg | 300 | 0248.13 | 20/02/2019 | EDCL | 500 |
| 11 | Analgesic | TRAMADOL | Injection-100mg | 300 | 88 | 31/01/2018 | Monarch Establishment | 300 |

Manage Receipt drug

Drop info

Category

Formulation

Quantity

Unit price

SATIN

Total price

Batch No.

On

Off

Set

RD

Inventory

Through Inventory module we can issue and indent drugs or any item. We can easily check stock availability of drugs or items. It has facility to create store as per need.

Medical Record System

Commission Calculation

Doctor ID / Name: [Please Enter Doctor ID / Name] Start Date: [Please Enter Start Date] End Date: [Please Enter End Date] Get View

No Bill Found.

Doctor ID / Name: [Please Enter Doctor ID / Name] Start Date: [Please Enter Start Date] End Date: [Please Enter End Date] Get View

| DATE | BILL ID | PATIENT NAME | INVESTIGATION | SERVICE PRICE | LESS AMOUNT | COMMISSION(%) | PAYABLE |
|------------------------|---------|--------------------|-----------------------------|---------------|------------------------|---------------|---------|
| 20/04/2016 | 13962 | HARESHA RAY /13962 | X-Ray of Lumbar spine (B/V) | 700.00 | 139.50 | 20 | 140 |
| 20/04/2016 | 13962 | HARESHA RAY /13962 | TSH | 700.00 | 139.50 | 20 | 140 |
| 20/04/2016 | 13962 | HARESHA RAY /13962 | LIPID PROFILE | 1000.00 | 190.00 | 20 | 200 |
| 20/04/2016 | 13962 | HARESHA RAY /13962 | USG of whole Abdomen & PVR | 1200.00 | 230.00 | 20 | 240 |
| 20/04/2016 | 13962 | HARESHA RAY /13962 | Needle & Devices | 15.00 | 0.00 | 20 | 0 |
| 20/04/2016 | 13962 | HARESHA RAY /13962 | ECHO COLOR DOPPLER | 2000.00 | 380.00 | 20 | 400 |
| 20/04/2016 | 13962 | HARESHA RAY /13962 | Fasting blood glucose | 100.00 | 20.00 | 20 | 20 |
| 20/04/2016 | 14039 | MRI HARESHADAN | ECG | 300.00 | 0.00 | 20 | 0 |
| 20/04/2016 | 15136 | MRS. SEGUN | ECHO COLOR DOPPLER | 2200.00 | 440.00 | 20 | 440 |
| 20/04/2016 | 15188 | NOOR MOHAMMAD | USG of abd. | 800.00 | 160.00 | 20 | 160 |
| 20/04/2016 | 15188 | NOOR MOHAMMAD | SGPT (ALT) | 350.00 | 70.00 | 20 | 70 |
| 20/04/2016 | 15188 | NOOR MOHAMMAD | B. Bilirubin (Total) | 250.00 | 50.00 | 20 | 50 |
| 20/04/2016 | 15188 | NOOR MOHAMMAD | Needle & Devices | 15.00 | 0.00 | 20 | 0 |
| Total Service Amount : | | | | 9730 | Total Payable Amount : | | 2875 |
| Total Less Amount : | | | | 1373 | Doctor Commission : | | 1502 |

Save Print

OT Management

Operation Theater Management System (OT) helps for booking OT, assesses cost of surgery and provides details of pre-post operative diagnosis records and final OT reports.

Blood Bank

This module keep records and provides reports of stock availability of blood, donors data to meet the request of specific blood group for the patients.

Master Health Setup

This module offers one stop services for the patients for regular health checkup. It helps physicians to compile all clinical and pathological records of patients for suggesting diagnosis and advice if required.

Information Desk and Scheduling

Reception is the first point of interaction for anybody coming to the Hospital. We can pick all the information in short about patients, doctors, departments and activities by using this module. It has online and walk in patient scheduling facilities.

Medical Record (MRD)

The purpose for this module is to utilize the patient's medical information and use it for analysis thereby improving patient care. The features of the module are Statistical reports based on diagnosis, age, sex, geographical areas and other parameters, Discharge Summary with details of test reports, Reports on departments, consultants, etc. Birth & Death Records with full details.

PACS

Picture Archiving and Communication System (PACS) is a technology for the short- and long-term storage, retrieval, management, distribution and presentation of medical images.

LIMS

A laboratory information management system (LIMS), sometimes referred to as a laboratory information system (LIS) or laboratory management system (LMS), is a software-based laboratory and information management system with features that support a modern laboratory's operations.

Diet & Nutrition

This system provides opportunity to the ward management staff for sending dietary request for patients to the diet and nutrition department. Then this department will prepare an instruction of menu/food to meet the required calories and will send it to the food and beverage department/canteen for preparation and supply.

Finance & Accounting

This system establishes a linkage among all departments to maintain financial issue. It maintain chart of account, financial data posting, cost center wise (account head) general ledger and other entry. It is integrated with General Ledger (GL), Accounts Receivables (AR) and Accounts Payable (AP).

Bed (ATD) Management

This system offers patient's admission record with notification to the respective consultant, transfer provision from bed to bed and doctor to doctor for consultation and provide discharge certificate. This will support to provide information about bed occupancy.

Management Information System (MIS)

This system is truly web based system so any one can easily view all sorts of reports from the computer and mobile devices. It has facility to view statistical report of clinical and administrative information to all concerned wing of hospital.



Crystal Diagnostic Management System

Crystal Diagnostic Management System (Crystal DMS) is a fully integrated web based Diagnostic Management System specially designed for diagnostic centers. It consists of several modules that cover all activities of diagnostic center, which includes **Patient Registration, Appointments, Billing, Consultation tracking, Investigation, Pathology, Imaging & Radiology** etc. Crystal DMS also provides valuable management information in the form of MIS (Management Information System) Reports allowing effective and easy management from smaller operations to global network of Diagnostics Centers. Anyone can view any report through using PDA or mobile phone as well. It can be deployed in any size environment, from a single center to a full-fledged, multi-location Diagnostics center.

The screenshot displays the Crystal Diagnostic Management System (Crystal DMS) web interface. The top navigation bar includes links for Home, Find/Create Patient, Dictionary, Laboratory, Report, Cohort Builder, Billing Report, and Billing. The main content area is divided into several sections:

- Laboratory system**: Includes Queue, Work List, Results, and Administrative Status. A link to "Add Confidential Test Orders" is also present.
- See patient List by choosing lab**: A section for viewing patient lists.
- Due Collect / Reprint Invoice**: A section for managing invoices, including a "Find" button and a "Patient Queue for Billing" table.
- Patient Registration Form**: A form for entering patient details, including Name, Demographics, Referral Information, and Marketed By.
- Medical Record System**: A section for viewing patient medical records, including a table of services and a summary of the patient's history.

The interface is designed to be user-friendly, with clear navigation and a focus on providing comprehensive diagnostic management tools.



01

Crystal has an extraordinary record in networking tasks. It also has some high quality professional and efficient manpower to build any kind of networkig infrastructure within a specific time-frame.

Networking

02

Crystal has a professional web development team for website development an maintenance.

Web Development

03

In computing, a web application or web-app is a client-server software application in which the client runs in a web browser. Crystal can also offer consultancy services for web applications.

Web Application

04

Crystal has an efficient data entry team to provide services anytime anywhere.

Data Entry

Hopital Automation

Diagnostic Centre Automation

IT Consultancy

ICT Training

Software Development

MAJOR CLIENTS



National Institute of Traumatology &
Orthopedic Rehabilitation (NITOR), Dhaka



Sarkari Karmachari Hospital

বাংলাদেশ সচিবালয় ক্লিনিক
Secretariat Clinic



MCHTI & MFSTC
Directorate General of Family Planning



Bangabandhu Sheikh Mujib
Medical University of Bangladesh



Ministry of Health and Family Welfare
Ministry of Health and Family Welfare



Government of the People's Republic of Bangladesh
Directorate General of Health Services (DGHS)
Directorate General of Health Services



Dhaka North City Corporation



MEMBERSHIP

