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| **Diagnostic Centre SYSTEM**    **Version :1.0**    **Prepared By Inspected/Reviewed By Approved By**  **NAME: Bhrahmagna Trivedi Mr. Shrikanth Nivarathi**  **SIGNATURE:**  **DATE:** 20/10/2008 |

**VERSION HISTORY**

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| **Version No.** | **Date** | **Changed By** | **Changes Made** |
| 1.0 | 20/10/2008 | Bhrahmagna Trivedi | Base Version |
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**Insurance Automation System**

1. **Objectives**

The objective of this case study is to apply the learnt concepts and acquired skills (SQL \* Server, ASP.NET, ADO.NET, Web Services). On completion of the case study participant should be able to:

* Create the required SQL \* Server Tables.
* Create the required SQL \* Server Views
* Generate unique Application Id using index or sequence.
* Create web services.
* Maintain state management.
* Generate the report in PDF Format using ASP tool.

1. **Pre-requisites**

The participant should have

1. Knowledge of Normalization
2. Working knowledge of creating tables, views, stored procedures with Transact-SQL
3. Implementation Knowledge of SQL and Joins
4. Familiarization with Visual studio
5. Good knowledge of establishing connections with ADO.NET
6. 3-Tier implementation knowledge with web services
7. **Skills/concepts**

Participant should be able to demonstrate Database design, Coding and Testing skills.

with SQL \* Server, ASP.NET, ADO.NET and Web Services

Concepts – Normalization

1. **Duration in hours**

This is an individual case study and the duration is 24 hours (3 days)

1. **Scenario**

A major healthcare center chain spread across many locations in India has opened a 200-bed hospital in a coastal town in Andhra Pradesh. There are no such healthcare centers in 200 km radius and thus this center became the main hospital to nearly 7 lacs people in and around that town. Being part of a major chain it has its own software implemented across all departments. They are outpatient department, inpatient department, nursing stations, billing counter, pharmacies, central drug stores, diagnostic center, ambulance, intensive care units, operation theatres, emergency ward, mortuary, patient room management, staff management and training departments. Each department has its own manager and few staff given to it to manage its operations. All staff are trained to use the healthcare software provided by the management. The staff can never afford to forget data entry as otherwise they will not be able to fulfill their duties with appropriate inputs.

**Staff:** Staff can login and enter all data entry for patients. Also can see the schedule of everyday.

**Patient:** Patient can register and login and take the appointment for

Particular services.

1. **Assumptions:**

The healthcare center’s diagnostic center provides all test facilities to patients.

1. **Features:**

The objectives of this system are:

* The diagnostic center has facilities and personnel to conduct all common tests and provide test reports within minimum time periods as mentioned below:

1. blood report (8 hr)
2. urine report (8 hr)
3. lipid profile (8 hr)
4. Thyroid test (16 hr)
5. Ultra sound test (2hr)
6. x ray (2 hr)
7. ECG (0.5 hr)
8. EEG (1 hr)

* Test facilities for conducting 1-4 tests are available for only 16 hr (6 am – 10 pm) in a day. But, 5-8 tests are available for 24 hr every day. It normally receives requisitions for various test reports from nursing stations and out patients and it manages its operations through its own software module.
* A doctor orders certain specific reports for his patient and then the tests are conducted on him after noting –

1. Patient name
2. Age
3. Tests to be done
4. Referred by doctor
5. Reports required immediately

1. **Resources(hardware and software)**

Environment : Net Framework, Visual Studio 2005

Operating System : Windows

Programming Language : C#/VB

Scripting Language : Java Script

Database : SQL Server 2005

1. **Deliverables**

* The system should have a separate page for registration and login.
* The system should have very easy navigation from one screen to other.
* The system should be extensible for new services and new customers.
* User should be able to generate various reports.

1. **Common mistakes**

* Giving incorrect data type and length while creating Table
* Trying to create Table without mentioning the database and Table space name
* Commenting the non executable lines.
* Not following the Coding standards.
* Not providing Logout and Change Password options.

1. **Check list for deliverables**

* Refer to checklist for deliverables

1. **Reflection upon learning**

* Discussion on alternate solution provided by others.
* Lessons learnt

1. **References**

* ASP.NET 2.0 by Wrox Publication.
* SQL Server 2005 by Wrox Publication.