1. INTRODUCTION

Tourism is an important, even vital, source of income for many countries. Its importance was recognized in the Manila Declaration on World Tourism of 1980 as "an activity essential to the life of nations because of its direct effects on the social, cultural, educational, and economic sectors of national societies and on their international relations."[1][2]

Tourism brings in large amounts of income into a local economy in the form of payment for goods and services needed by tourists, accounting for 30% of the world's trade of services, and 6% of overall exports of goods and services.[3] It also creates opportunities for employment in the service sector of the economy associated with tourism.[4]

The service industries which benefit from tourism include transportation services, such as airlines, cruise ships, and taxicabs; hospitality services, such as accommodations, including hotels and resorts; and entertainment venues, such as amusement parks, casinos, shopping malls, music venues, and theatres. This is in addition to goods bought by tourists, including souvenirs, clothing and other supplies.

The tourism industry of India is economically important and grows rapidly. The World Travel & Tourism Council calculated that tourism generated INR6.4 trillion or 6.6% of the nation's GDP in 2012. It supported 39.5 million jobs, 7.7% of its total employment. The sector is predicted to grow at an average annual rate of 7.9% from 2013 to 2023.[5] This gives India the third rank among countries with the fastest growing tourism industries over the next decade.[6] India has a large medical tourism sector which is expected to grow at an estimated rate of 30% annually to reach about ₹ 95 billion by 2015.

According to provisional statistics 6.29 million foreign tourists arrived in India in 2011, an increase of 8.9% from 5.78 million in 2010. This ranks India as the 38th country in the world in terms of foreign tourist arrivals. Domestic tourist visits to all states and Union Territories numbered 1,036.35 million in 2012, an increase of 16.5% from 2011.[7] The most represented countries are the United States (16%) and the United Kingdom (12.6%). In 2011 Maharashtra, Tamil Nadu and Delhi were the most popular states for foreign tourists. Domestic tourists visited the states Uttar Pradesh, Andhra Pradesh and Tamil Nadu most frequently.[8] Chennai, Delhi, Mumbai and Agra have been the four most visited cities of India by foreign tourists during the year 2011. Worldwide, Chennai is ranked 41 by the number of foreign tourists, while Delhi is ranked at 50, Mumbai at 57 and Agra at 65 and Kolkata at 99.[9]

The Travel & Tourism Competitiveness Report 2013 ranks India 65th out of 144 countries overall. The report ranks the price competitiveness of India's tourism sector 20th out of 144 countries. It mentions that India has quite good air transport (ranked 39th), particularly given the country’s stage of development, and reasonable ground transport infrastructure (ranked 42nd). Some other aspects of its tourism infrastructure remain somewhat underdeveloped however. The nation has very few hotel rooms per capita by international comparison and low ATM penetration.[10] The World Tourism Organization reported that India's receipts from tourism during 2012 ranked 16th in the world, and 7th among Asian and Pacific countries.[11]

In 1994, the United Nations identified three forms of tourism in its Recommendations on Tourism Statistics:[12]

Domestic tourism: involving residents of the given country traveling only within this country.

Inbound tourism: involving non-residents traveling in the given country.

Outbound tourism: involving residents traveling in another country.

The number of domestic tourist visits to states and union territories registered an increase of about 20% during the year 2012 over 2011 as compared to an increase of about 16% in the corresponding period last year.   
  
According to the latest statistics on tourism in India released by ministry of tourism, the number of domestic tourist visits to the states and union territories was 1,036 million in 2012 as compared to 865 million in 2011 and 748 million in 2010.[13]

**1.1 IDENTIFICATION OF NEED**

Provision of health care services to the population at district level is a set of integrated activities. Some of these activities are part of categorical programmes for disease control; others reflect a response to common individual health needs. All should be planned, monitored and evaluated. The responsibility for planning, monitoring and evaluation; for ensuring regular supplies and staff training; and for adequate functioning of the system to serve the needs of the community and reduce the burden of disease monitoring which falls on the district health management team.

The district team responsibilities have different weight for individual care - given by public and private health providers and for public health interventions to improve the health of the community, which are mainly provided by the public system. These public health interventions deal mainly with infectious diseases, which represent a risk of epidemic or endemic transmission and with common causes of disease and death such as dehydration and pneumonia in young children. The interventions must be effective, accessible to the community (particularly the poorest sectors of the population), efficient and affordable for the community to ensure sustainability. The district team must select the pertinent interventions and ensure resources, quality of delivery, coverage and health impact.

To carry out these functions the team must collect and analyze standard data and use indicators of process, quality and outcome. Some categorical programmes dealing with tuberculosis, leprosy, immunisation, and control of diarrhoeal and respiratory diseases in children have developed very detailed data collection and monitoring systems, which are applied in many countries. However, those systems are specific for each disease control programme and at district level may, depending on the organisation of the health system, result in duplication of administrative work, large number of forms to be filled and difficulties to evaluate the performance of primary health care (PHC) as a whole.

A core group of indicators, useful to evaluate the integrated PHC services and including indicators for triggering action are essential for the district team to function effectively. According to needs and capacity of the district level other indicators could be added. The core would be also useful for planners during health sector reform, to ensure that the reform process does not result in deterioration of the public health interventions addressing the priority health problems of the country or district.

**3. SYSTEM ANALYSIS**

**3.1 EXISTING SYSTEM**

The existing system [1] provides only a district level entry to the database. The problem is that for a big district, it is also become quite difficult to collect the data form different parts of the district such that they can give the details to the government in time. There is no forum and complaint session for the users to interact with the admin. Also, there is no disease diagnosis.

**3.2 PROBLEM STATEMENT**

**3.3 PROPOSED SYSTEM**

CDMS is a computerized implementation, to enter data, generate reports and perform queries. The reports will be in the form of tables, graphs and maps. It is an online version of a web application. It has provision for online data entry and some useful advance reports can also be viewed through this application. The data entry can be done in hospital level. The details of a patient are entered to the system through any agents in the hospital. The project included activities such as evaluation of surveillance and Early Warning Systems (EWS), GIS or Health maps. Using data that indicates spatial distributions of cases, CDMS software can assist public health officials to identify the location of an outbreak. It also includes forum and complaint session which helps the user to complaint and these complaints can be forwarded to concerned officials by the admin. CDMS also adds disease diagnosis feature.

**9. SYSTEM DESIGN**

9.7 DATABASE DESIGN

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general way is to make information accessing easy, quick, inexpensive and flexible for the user. In the database design several objectives are considered controlling redundancy, ease of learning and use, data dependence, more information at low cost, accuracy and integrity are some of them.

In this phase, information from the ER-diagram is used to design the database. The entities in the ER-diagram represent the table that have to be created and the attributes represent the fields that are in each table.

9.8 INPUT DESIGN

It is the process of converting a user oriented description of the input to a computer based system into a programmer oriented specification .Here in this system we collect input from user, proper validation checks are performed in the input page to check whether the user had not left the required field blank or incorrect data has been placed if so, message will be generated by the system. The system uses the following pages as input pages.

Administrator

1. Admin Login Page
2. Change Password Page
3. Agent Signup Page
4. Communicable Disease Page
5. Pathogens Page
6. Preventive Measures Page
7. Disease Preventive Measures Page
8. District Page
9. Area Page
10. Living Environment Page
11. Occupation Page
12. Mode of Transmission Page
13. Disease Mode of Transmission Page
14. Agent Page
15. Alert Page
16. Forum Answer Page
17. View Complaint List Page
18. View Complaint Page
19. Forward Complaints
20. Disease Entry Page
21. Symptom Entry Page
22. Symptom Category Page
23. Disease Symptom Category Page

User/Agent

1. Agent Login Page
2. Change Password Page
3. Forum
4. Complaints
5. Diagnosis
6. Patient Details
7. Patient Details Entry

The descriptions of the above pages are as follows:

1. Admin Login Page

This page accepts admin name and password

2. Change Password Page

Allows the administrator to change his/her password

3. Agent Signup Page

This page is meant for the registration purpose of the agent. It collects all the details about the agent such as name, email id etc. A unique username is accepted from the customer for identification.

4. Communicable Disease Page

It displays all communicable diseases on a grid view and the administrator can make modifications like adding, editing and deleting the details by using object data source.

5. Pathogens Page

This page displays all the pathogens with its corresponding communicable disease on a grid view. It uses sql data source for listing out the diseases in a drop down list. It allows the administrator to make modifications such as adding, editing and deleting the details by using object data source.

6. Preventive Measures Page

This page displays all the preventive measures on a grid view. It allows the administrator to make modifications such as adding, editing and deleting the details by using an object data source.

7. Disease Preventive Measures Page

This page displays all the preventive measures to be adopted for the corresponding communicable disease on a grid view. It uses sql data source for listing out the diseases and preventive measures in drop down lists. It allows the administrator to make modifications such as adding, editing and deleting the details by using an object data source.

8. District Page

This page displays district names on a grid view and the administrator can make modifications like adding, editing and deleting the details by using object data source.

1. Area Page

It displays the areas with its corresponding district on a grid view. It uses sql data source for listing out the districts in a drop down list. It allows the administrator to make modifications such as adding, editing and deleting the details by using object data source.

1. Living Environment Page

It displays living environment of the patients on a grid view and the administrator can make modifications like adding, editing and deleting the details by using object data source.

1. Occupation Page

It displays occupation of the patients on a grid view and the administrator can make modifications like adding, editing and deleting the details by using object data source.

1. Mode of Transmission Page

It displays mode of transmission of diseases on a grid view and the administrator can make modifications like adding, editing and deleting the details by using object data source.

1. Disease Mode of Transmission Page

It displays mode of transmissions along with its corresponding communicable disease on a grid view. It uses sql data source for listing out the diseases and mode of transmissions in drop down lists. It allows the administrator to make modifications such as adding, editing and deleting the details by using an object data source.

1. Agent Page

It displays agent name and details on a grid view and the administrator can make modifications like adding, editing and deleting the details by using object data source. Administrator can block and unblock agents.

1. **Alert Page**

It displays the alerts for disease outbreaks along with its date of posting on a grid view. It allows the administrator to make modifications such as adding, editing and deleting the details by using an object data source.

1. Forum Answer Page

It displays the questions posted by users along with its date of posting. It allows the administrator to submit answer for the corresponding question. It also allows the administrator to omit irrelevant questions by using an object data source.

1. View Complaint List Page

It displays complaints from the users, date of posting, user name and the status of action taken.

1. View Complaint Page

This page allows the administrator to view the complainer’s details and the corresponding complaint.

1. Forward Complaints

This page allow administrator to forward the complaint viewed in “view complaint page” to corresponding agents in that area.

1. Agent Login Page

This allows the agent to log on to the system.

1. Change Password Page

It allows the agent to change his/her password.

1. Forum

It allows all the users to post questions, complaints and suggestions. The users can view the administrator’s reply to the post.

1. Complaints

It allows visitors and agents to post complaints.

1. Diagnosis

It gives a vague idea about the disease when a user enters the disease symptoms

1. Patient Details

It displays patient name and details on a grid view which have been entered by an agent.

1. Patient Details Entry

It allows the agent to enter patient details and also allows the agent to make modifications like editing and deleting by using object data source.

27. Disease Entry Page

It allows admin to enter disease names and to make modifications.

28. Symptom Entry Page

It allows admin to enter symptoms.

29. Symptom Category Page

It displays the symptoms with its corresponding symptom category on a grid view. It uses sql data source for listing out the symptom in a drop down list. It allows the administrator to make modifications such as adding, editing and deleting the details by using object data source.

30. Disease Symptom Category Page

It displays disease and its corresponding symptom, and symptom category.

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