 

Sikkim-Manipal University

Of Health, Medical and Technological Sciences

Manipal-576104.

PROJECT REPORT

Submitted in partial Fulfillment of **Bachelor of Science in Information Technology (BSCIT)**

Entitled

**“Library Management System”**

By

**SATYAJIT NATH**

**Roll no: 520928214**

Study Center: Eduway Academy Pvt. Ltd.

CBD Belapur, Navi Mumbai (Center code-1736)

Sikkim-Manipal University of Health,

Medical and technological Sciences

Distance Education Wing

Syndicate House

Manipal-576104.

**September 2012**

***Acknowledgements***

I would like to take this opportunity to thank all those people without whom this project would have been impossible.

First and foremost, Mr Arvind Sonawane, for his expert guidance, and encouragement.

I would like to thank Mr. Bipul Barman, Data Analyst, GE Company, Delhi also for guiding me to prepare this project.

I am extremely grateful to those who directly and indirectly helped me in completing my project work and making it successful.

SATYAJIT NATH

Roll no: 520928214

BSCIT Student

# Students Declaration

I, **Satyajit Nath** student of **BSCIT Programme,** (Roll no 520928214), Sikkim-Manipal University studying through Eduway Academy Pvt.Ltd (center code: 01736) CBD Belapur hereby declare that this project is entitled as

**“LIBRARY MANAGEMENT SYSTEM”**

This project is submitted in partial fulfillment for the degree of **Bachelor of Science in Information Technology (BSCIT)** to Sikkim-Manipal University, India. It is my original work and not submitted for the award of any Degree, Diploma, Fellowship or any other similar Title or Prizes.

All the above information provided from our institution is true to the best of my knowledge to fulfill and restrict this project work only and his information exceeds beyond. These facts and figures quoted here are correct to the best of any knowledge but not to quote or publish elsewhere i.e. other than this project work.

Place: Eduway Academy Pvt Ltd,

CBD Belapur SATYAJIT NATH

Roll no: 520928214

BSCIT Student

### Date:

Sikkim-Manipal University

**Bonafide Certificate:**



BONAFIDE CERTIFICATE

This is to certify that this project report titled

**“LIBRARY MANAGEMENT SYSTEM”**

is the bonafide work of SATYAJIT NATH who carried out the project work under my supervision.

SIGNATURE SIGNATURE

HEAD OF THE DEPARTMENT FACULTY INCHARGE

Department: MANAGEMENT Department: MANAGEMENT Institution: EAPL Institution: EAPL

##### Study center: Eduway Academy Pvt. Ltd.

###### Project Assessment

Examiner’s Certification

**This BSCIT Project Report**

By

**SATYAJIT NATH**

**Roll no: 520928214**

Of Sikkim-Manipal University

Undertaken through Eduway Academy, CBD Belapur

Entitled

Is approved and Accepted in Quality and Form

Internal Examiner: Signature:

Name: Mohammed Arshad

Qualification: MBA

Designation: DIRECTOR

Department: MANAGEMENT

Institution: EDUWAY ACADEMY PVT. LTD.

External Examiner: Signature:

Name: Mohammed Hanif Lakdawala

Qualification: MPHIL

Designation: HOD

Department: Management

Institution: AP COLLEGE

###### University Guide’ Certification

This is to certify that this MBA Project Entitled

**“LIBRARY MANAGEMENT SYSTEM”**

is submitted in partial Fulfillment of the requirement Degree of

**BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (BSCIT)**

By

**SATYAJIT NATH**

**Roll no: 520928214**

Under

Sikkim-Manipal University of Health, Medical and Technology Sciences, Manipal.

He has worked under my supervision and guidance. I hereby state that no part of this report has been submitted for the award of any Degree, Diploma, Fellowship or any other similar titles or prizes and that the work has not been published in any journal or magazine.

Certified By

Name: Mohammed Arshad

Designation: DIRECTOR

Organization: EDUWAY ACADEMY PVT. LTD.

Signature:

Date :

The HR Manager

XYZ Pvt. Ltd. Date:

Dear Sir/Madam,

SATYAJIT NATH is a bonafide student of Sikkim Manipal University Department of Distance Education, currently enrolled in the Six semester of the BSCIT program, with specialization in the area of Information Technology.

As part of the requirements of the MBA degree, he/she is required to complete a Project of approximately eight months’ duration in his/her area of specialization. This should ideally be a live Project on an ongoing problem faced by the organization, under the supervision of a company guide. The objective of the project is to enable the student to apply his/her theoretical knowledge, problem solving and analytical skills and to equip himself/herself to face the challenges of the real world. Evaluation of the project will be based on a written report, as well as an oral presentation, after which a certificate of completion should be given by the organization.

I would be grateful if an opportunity could be given to \_\_\_\_\_\_\_\_ to work on such a project in your esteemed organization. Please review his/her enclosed resume and let me know if a suitable project would be available in his/her area of specialization.

Looking forward to a positive response,

Sincerely,

Company Head

Signature with Seal

**Table of Contents**

**Chapter 1:** **Introduction** 1

1.1 Background: 1

1.2 Problem Statements: 2

1.3 Objectives 3

1.4 Scope 3

1.5 System Specification 4

**Chapter 2: System Study and Analysis** 5

2.1 Study of Existing System 5

2.2 Study of Proposed System………………………………………………………………….5

2.3 Technologies used 6

Frontend Technology 6-15

Backend Technology ….16-19

Middleware Technology………………………………………………………………..20-25

2.4 Feasibility Analysis 26

Technical Feasibility 26

Operational Feasibility 26

Economical Feasibility 27

2.5 System Planning 28

2.5.1 Software Development Methology 28-30

2.5.2 Time Scheduling (GANTT Chart) 31

**Chapter 3 System Design** 32

3.1 Introduction 32

3.2 Diagram 33

3.2.1 UML diagram 33

3.2.2 Use case diagram 34-35

3.2.3 Sequence Diagram 36

3.2.4 State Chart Diagram 37

3.2.4 DFD 38-41

3.3 Database Design 42-45

34 Module Descriptions 46-47

**Chapter 4 Development and Testing** 48

4.1 Coding (Back End and Front End) 48

4.2 Testing (Methods, Techniques, Test Plan and Test Case, Tools ) 49-52

**Chapter 5: Support** 53

5.1 Implement Plan 53

5.2 Maintenance 53-55

**Chapter 6: Conclusion and Future Plan** 56

6.1. Conclusion 56

6.2 Future plan 57

6.3 Bibliography………………………………………………………………………............58

6.4 Source Codes 59-134

6.5 Snap Shots 135-139