NATIONAL COLLEGE OF INFORMATION TECHNOLOGY

(BLANTYRE CAMPUS)

L5BIT MAIN PROJECT PROPOSAL

ONLINE TRAIN TICKET BOOKING SYSTEM FOR CENTRAL EAST AFRICAN RAILWAYS (CEAR)

BY

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**OVERVIEW**

Central East African Railways (CEAR) runs a concession to manage and operate the Nacala Railway Corridor. The railway covers a lot of including Malawi. The network in Malawi was constructed between 1908 and 1980 extending approximately 797 km from Mchinji at the Zambian border in the west, through Lilongwe, Blantyre, Makhanga in the South, up to the border Mozambique border at Marka. They additionally operate a regular passenger train service with Premium and Executive Coaches along Limbe-Balaka-Liwonde and Nayuchi. These are further available for special hiring arrangements.

The current booking system involves a customer getting tickets from the headquarters as booking only takes place at the head office. Customers call the office or send emails to make a booking as alternatives to going to the head office. For any enquiries, customers either visit or call the headquarters. All booking, customer and employee details are on paper placed in folders.

This system has several problems where lack of communication diversification is the first. Customers can only access information when they visit CEAR headquarters. Another problem is the paper that the system is paper based. Data is more likely to easily go missing, get damaged and altered. It is additionally tiresome and costly to update details written on paper. Furthermore, the system lacks an efficient way of communicating updates to customers.

The solution to these problems is the development of an online web application that will enable customers to book train trips at the convenience of a customer from anywhere at any time. Customers will be able to enter their personal details and book the train trip according to the available days. This system will end the offices reliance on papers for storing information and will incorporate a database to store all company associated data. Updates will be always available at the fingertips of users as well as the company’s basic information as they just must access the web apps website. In addition, any changes made to the trip schedule will be updated onto the web app.

*2.0* **AIMS, OBJECTIVES AND SCOPE**

*2.1* ***AIM***

Creating an online web app that enables customers to book tickets at their convenient time, view updates, trip schedules as well as give out basic information about the company.

*2.2* **OBJECTIVES**

*2.2.1* ***Investigate and Analyze Current System***

* Conducting an Interview to gather user requirements.
* Handing out a questionnaire to further understand what needs to be done.
* Investigating how competitors work and making comparisons to help gather information that will help in the development of the system.

*2.2.2* ***Design the System***

* Designing the Graphical User Interface of the site using HTML and CSS.
* Mapping how the system elements will communicate with one another using models such as the UML diagrams to develop the Entity Relationship Diagram, Use Case and Sequence diagrams.

*2.2.3* ***Develop the System***

* Actual codding and development of the user interface
* Creating the databasea from the ERD.
* Producing the code that will make the system function.

*2.2.4* ***Test and Implement the System***

* Conducting users acceptance test to check whether users like the designed system.
* Conducting Testing the system to see if it meets customers’ requirements

*2.2.5* ***Documentation***

* Production of User Manual detailing user and technical documentation

*2.3* **SCOPE**

This system will focus on

* Enabling customers to book train tickets online
* View updates and basic information of the company
* View train trip schedules

*2.4* **RESOURCES**

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| **SOFTWARE** | **DESCRIPTION/PURPOSE** |
| PHP | For manipulation and creation of Databases |
| HTML AND CSS | For presentation and layout of the system |
| MySQL | For database and Storage and Data |
| MS Word and MS Project | For creating documents and Gantt Chart |
| Adobe Photoshop | For graphics |
| **HARDWARE** | **DESCRIPTION/PURPOSE** |
| Computers | For writing codes, typing documents and information storage |
| Printers | For printing documents |
| Stationary | Used for taking notes and keeping files |

*3.0* **WORK BREAKDOWN STRUCTURE AND GANTT CHART**

