



Sri Lanka Institute of Information Technology

Information Technology Project

Year2, Semester 2 - 2023

Project Charter

Title of the Project :	Network Tower Management System for Engenuity Telco Pvt Ltd	
Campus & Batch :	Malabe Weekday – Batch1	Group No: T8
Development Technology :	MERN Stack Technology	

Description of the Project:

Engenuity Telco Pvt Ltd is a leading company in the Telecommunication industry, offering a wide range of services, including Civil, Minor Civil, Survey, and TL. The company's major clients, such as Dialog, Mobitel, and Hutch, consistently receive top-notch services and customer satisfaction. However, the complexity of the Telecommunication industry, with its numerous site installations, requires a robust monitoring system to ensure that ground-level activities are carried out efficiently and on time.

One of the major challenges faced by the company was the inability to view data of sites located in different areas from a single location. This prompted the need for a user-friendly web application that would address the company's needs and provide a solution to the challenges faced by the clients. The web application, built on the MongoDB database, which is cloud-based and secure to international standards, was designed with a user-friendly interface to make it easy for users to access and manage information.

The web application consists of eight main functions, each linked to the others and readily accessible through either the Site ID or Site Name. These functions include the Tower Information System, Finance Management, Contractor Information Management, Environment and Safety Management, Contact Information System, Transport Management, Staff Management, and Document Management System. The system is monitored by four privileged assigns, but the main administrator has full control over the system and can grant client access as needed.

This web application has proven to be a valuable asset to the company, helping clients to monitor activities, share details, and identify their financial status on time. The ground-field staff receive support information in a timely manner, while top management is kept informed of pending activities and the current handler. The web application has fulfilled the client requirements and has solved the challenges faced by the company, ensuring customer satisfaction and on-time billing.

Details of the Group Members: *(Provide the details of the group leader in the first row)*

	Name with Initials	Registration Number	Contact Phone Number	Email
1.	Bandara K.M.V.T.	IT21266300	0713293907	it21266300@my.sliit.lk
2.	Bandara R.M.D.L	IT21266096	0716816224	it21266096@my.sliit.lk



Sri Lanka Institute of Information Technology

Information Technology Project

Year2, Semester 2 - 2023

3.	Chandrasena H.M.K.G.J.K	IT21268830	0779273741	it21268830@my.sliit.lk
4.	Kiriwaththuduwa K.C.N	IT21298158	0701399308	it21298158@my.sliit.lk
5.	Chamodya W.A.H	IT21355882	0767536025	it21355882@my.sliit.lk
6.	Wimalarathna DMAT	IT21238444	0701399308	it21238444@my.sliit.lk
7.	Nanayakkara A.A.R	IT21700156	0719663229	it21700156@my.sliit.lk
8.	Senadheera WDND	IT21220388	0702774093	it21220388@my.sliit.lk

List of Functions Developed by the Group Members:

	Name with Initials	Brief Description of the Function
1.	Bandara K.M.V.T.	The primary function of the web application is Tower Information System . This system must contain all relevant details about network towers and should facilitate the downloading of permission letters. Every user should be able to search for tower details using the site name. The system should be designed so all users can easily view tower details and download the necessary permission letters. The system's admin can add new tower details, update existing details, or delete them as needed. The project manager checks the completion steps and updates the site's status (Civil). The admin panel is also responsible for updating the status of the towers(TI). Additionally, the system generates weekly reports related to the sites.
2.	Bandara R.M.D.L	Finance Management - In this section, the company is given the option to monitor the financial data of each site. The Finance executive has the authority to make improvements to the revenue and expense data, which is suitably categorized based on the appropriate site. Project Manager, Rollout Manager and Business Development Manager can check track of revenue, expenses, losses, and profit margins for all sites, allowing them to make informed decisions on time. Furthermore, the system can generate a financial report, which serves as a complete summary of the company's financial condition.
3.	Chandrasena H.M.K.G.J.K	Contractor information Management -In this section, the company can add their contractor, sub-contractor, and team details to the system. Also, the system should be able to change those details. Furthermore, the company can assign project sites to the teams. If one team is already assigned to one project site, that team cannot be assigned to another. System users should be able to see contractor and team details by searching site id/name. Additionally, the system generates reports related to the assigned site.
4.	Kiriwaththuduwa K.C.N	Environment Health and Safety Management - The principle cause of this section is to manipulate the protection equipment used to protect workers and the encompassing environment in each construction site. The system admin can create a safety equipment count related to every construction section, replace or update the



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		equipment count when necessary, and delete them when unnecessary. Any other important point here is that the company can get a comprehensive file on the usage of safety items used in every construction site.
5.	Chamodya W.A.H	Contact information system- This contact information is valuable for finding staff details and site contact details. Staff contact details can be obtained site- or group-wise. When an issue arises, it can be resolved immediately by a responsible person. Also, reduce the time spent on this and increase the efficiency of the rollout process. Here, the contact details of the client and the staff can be easily obtained. Employees can search contact details and generate information as a report. Furthermore, the site map makes all ongoing, pending, and forecasted site locations visible simultaneously. As a result, management has created a massive capability for planning site activities
6.	Wimalarathna D.M.A.T	Transport management is an essential part of the system. There are three main parts, collection of material from a customer, delivery of material to the site, and removal of material to the warehouse. Transport details can be updated, deleted, and inserted. All employees can view Transport details, and only the admin can update, delete and insert transport details. Drivers can update the GPS location of vehicles Employees can search transport details and generate information as a report. This function also helps minimize transportation costs and utilize limited vehicles.
7.	Nanayakkara A.A.R	Staff Management- This function impact utilizing the limited human resource of the company. Top management can monitor field staff activities and can make decisions on time. Each member of the ground field can forecast their scope. Staff management is divided into five teams. They are Doc team, Rollout team, Warehouse Operation team, Revenue &Commercial team and the project team Management allows updating the database, and everyone can see staff details.
8.	Senadheera W.D.N.D	Document Management system manages all documents for sites. Show document status like rejection, approval, approval pending, and submission. Also, the system creates status reports for documents. Staff members can view and download documents from the system. However, only admin can upload, update and delete documents. A staff member should be able to search for the current status of the site documentation using the site ID. The system generates an ID for every document based on date, time, and site. This function reduces time wasted on file searching, and management can make decisions on time analyzing with accurate data.