BMS WEB APPLICATION

AMPTON ENERGIES

USER MANUAL

TABLE OF CONTENTS

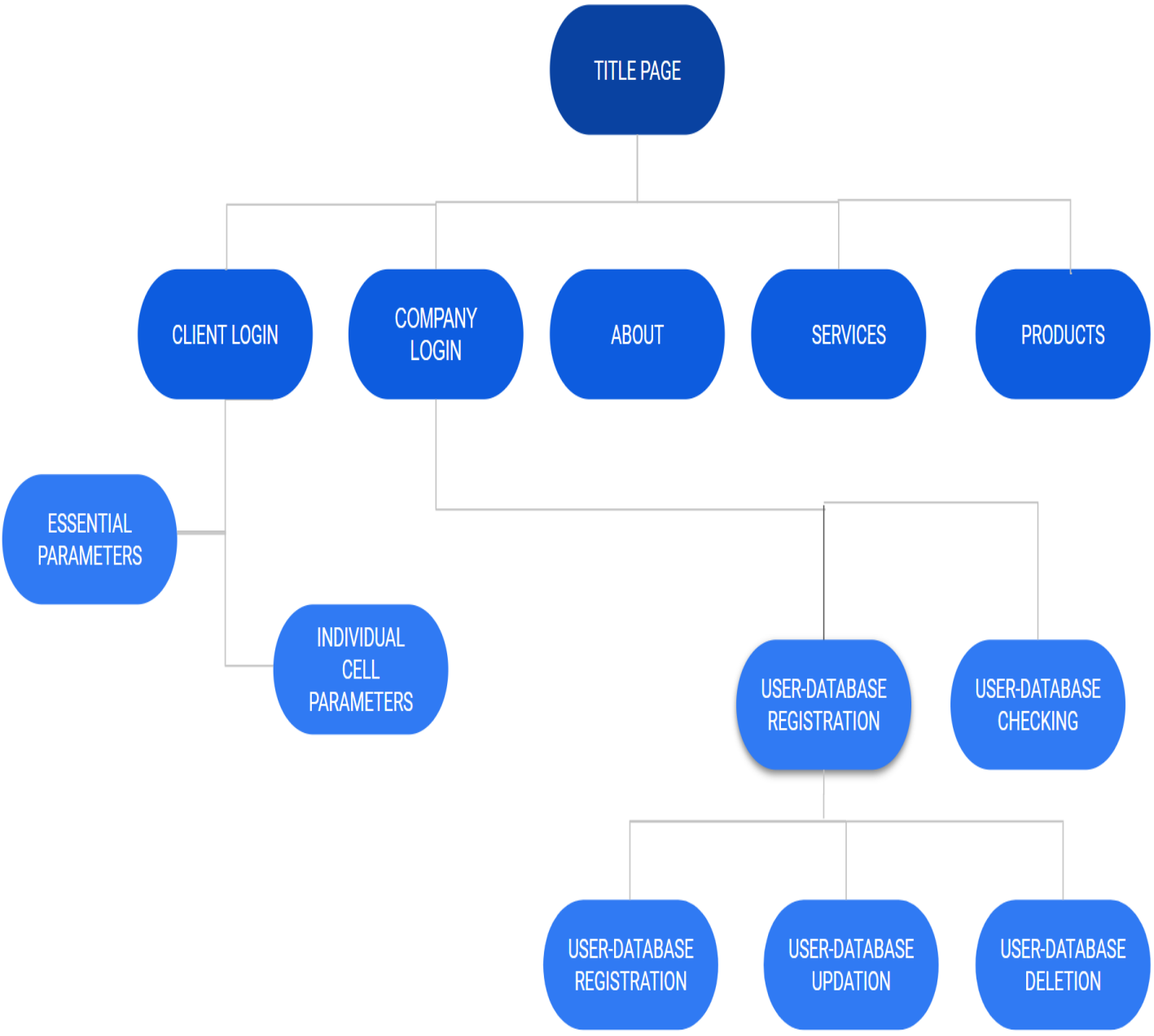
INTRODUCTION

A PC-Laptop Compatible User-Friendly web application enabling the client for Real Time monitoring of the developed Battery and facilitation of adding the client data to the realtime database. Google's Firebase is the database that has been used to store and retrieve real time data from the Battery monitoring system. Basically the front end of this web application has been developed using HTML, CSS and Bootstrap. Javascript language has been used to make the website more responsive and also to acquire and display the required parameters from the database. JQUERY has been used for the validation of the company's and the client's login page. The web application also provides a prompt if there is any issue with any cell which denotes "Cell Failure status". We have a separate login for the company side and the client side.

INSTRUCTIONS

Action	Description
Navigation Bar	Located at the top right corner, provides easy access to different sections of the application.
Client Login	Click on "Client Login" in the navigation bar to access the client login page.
	Enter your login credentials (username and password).
	Upon successful login, you will be redirected to the BMS Monitor, where battery parameters are displayed.
Company Login	Click on "Company Login" in the navigation bar to access the company login page.
	Enter your company login credentials (username and password).
	Upon successful login, you will be redirected to the BMS Database, where company-related data is stored and managed.
BMS Monitor	Accessible after successful client login.
	Displays battery parameters such as health, voltage, temperature, and other relevant information in real-time.
	Provides monitoring tools and options for efficient battery management.
Company Database	Accessible after successful company login.
	Allows adding, updating, and deleting user information within the company's database.
	Enables efficient management of user accounts and permissions for company personnel.
Additional Notes	Ensure that correct credentials are used for login to access the respective sections (client or company).
	Contact support if you encounter any login issues or require assistance with using the application's features.

HIERARCHICAL USAGE CLASSIFICATION



WEB-PAGES

TITLE PAGE:

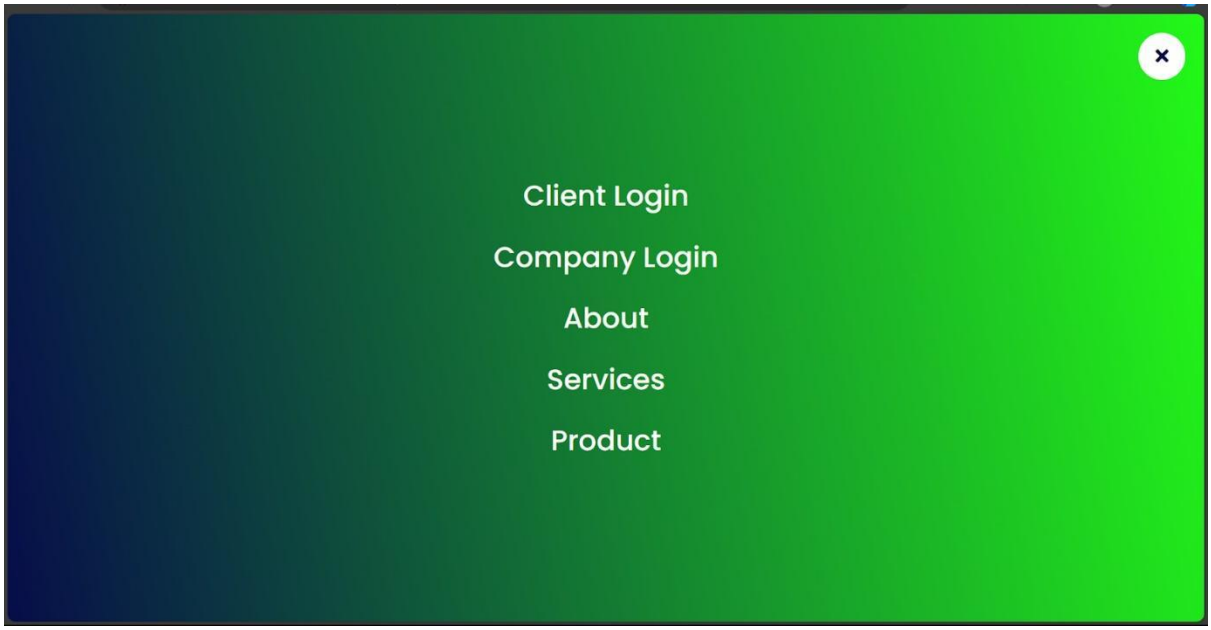
Path : Website_link / Title_page /

Instructions:

1)This is the title page that appears on the users device when one opens the BMS Website link.

2)This screen is equipped with a navigation bar at top right corner inorder to navigate to various related screens such as Client Login, Company Login ,About , Services and Products.

NAVIGATION BAR:



Path: Website_link/Title_Page/Navigation_Bar/

Instructions:

1) This is the screen that appears when one clicks on the navigation bar icon.

2) It has the anchor links to Client Login , Company Login , About , Service and Products.

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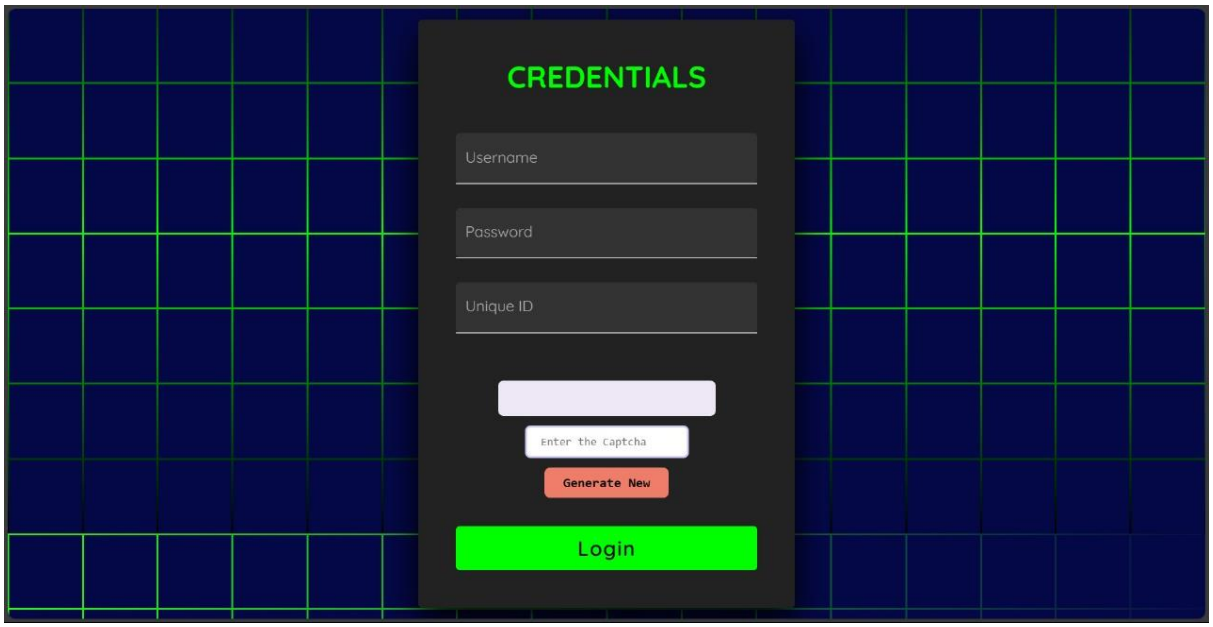
CLIENT LOGIN:



Path: Website_link/Title_Page/Navigation_Bar/Client_Login/

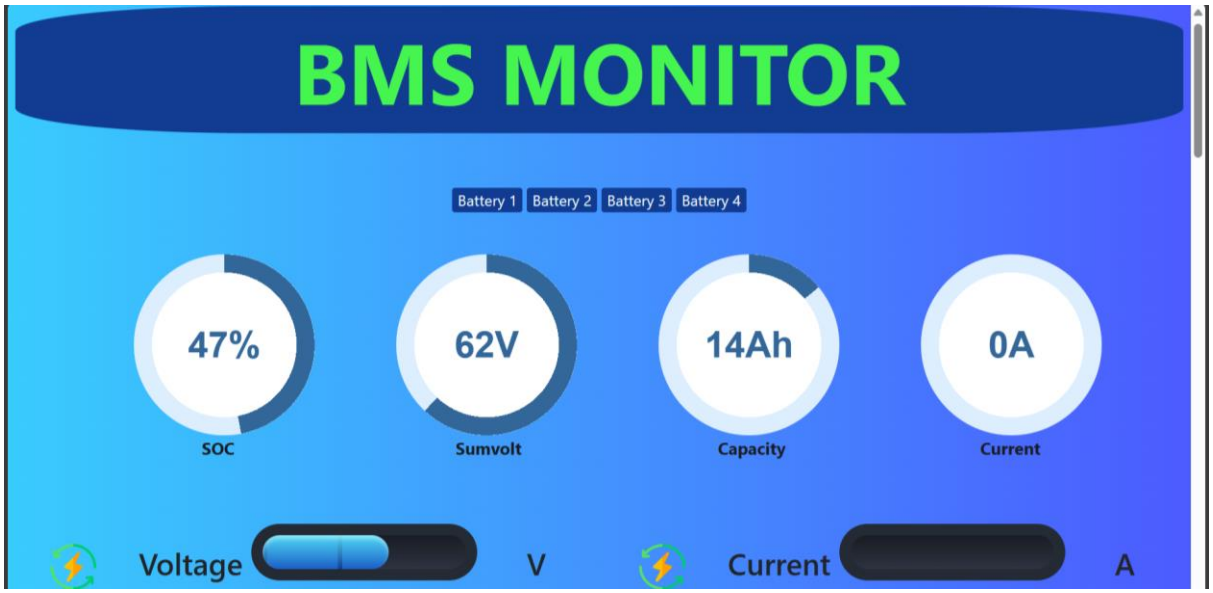
Instructions:

1)The client login screen is reached by navigating via the navigation bar present in the title screen.

2)The Username , Password and the UID for the client login is set by registering via BMS database.

3)The generated Captcha has to be entered in the input Captcha Box for Logging in Successfully.

BMS MONITOR:



Path:

Website_link/Title_Page/Navigation_Bar/Client_Login/BMS_Monitor/

Instructions:

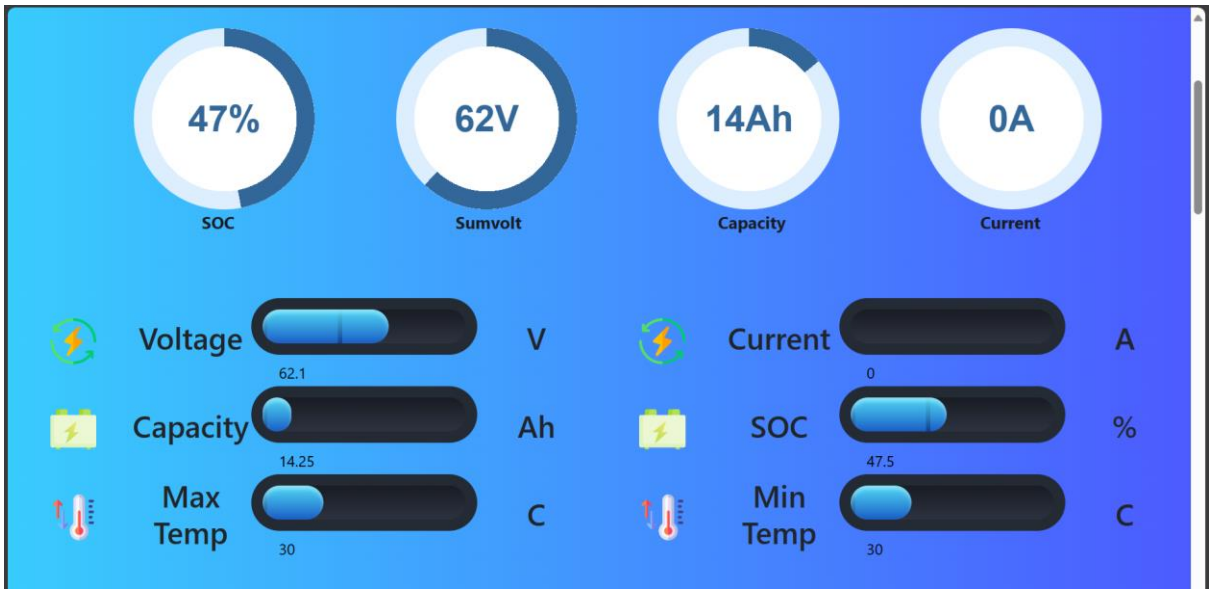
1)The BMS Monitor screen is reached by logging in successfully into the client login page.

2)The BMS Monitor screen Displays 6 Essential Parameters and Individual Cell Parameters(19 cells).

3) The Battery button at the top of the screen helps to navigate to different battery models when the appropriate link is anchored to the code

4) 4 Essential Parameters out of the 6 Essential Parameters are displayed via Circular Progress bars.

ESSENTIAL PARAMETERS:



Path:

Website_link/Title_Page/Navigation_Bar/Client_Login/BMS_Monitor/

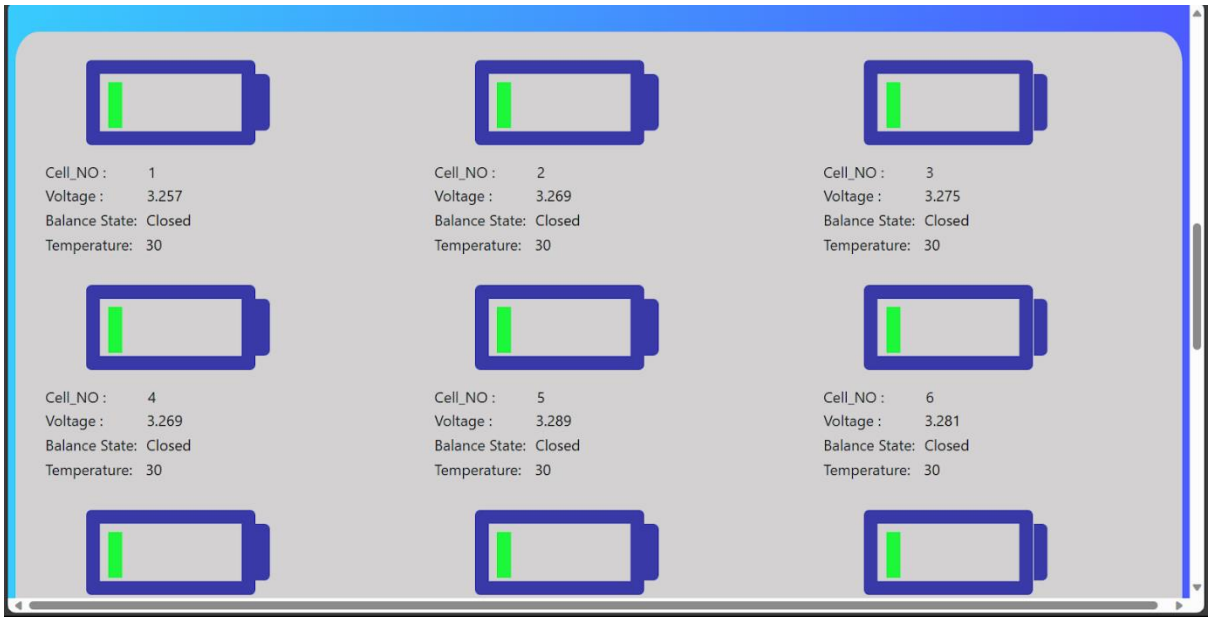
Instructions:

1)After Logging in and scrolling down we will be able to view these essential parameters.

2) 4 essential parameters have been displayed using circular progress bars.

3) 6 parameters have been displayed both using progress bars and numerical values which are : Voltage, Capacity, Current, SOC, Maximum and minimum temperature of a cell in a battery.

INDIVIDUAL CELL PARAMETERS:



Path:

Website_link/Title_Page/Navigation_Bar/Client_Login/BMS_Monitor/

Instructions:

1)On scrolling down , we reach a layout where 19 different cell images along with 4 parameters are displayed.

2)On hovering over the cells, as a part of attractive animation the cells get filled with fluorescent green bars.

3)The individual cell parameters such as Cell No. , Voltage , Balance State , Temperature are displayed for the 19 cells.

INDEXES

Essential Parameters: The parameters like SOC , Capacity , Voltage , Current , Maximum and Minimum Temperature which are monitored for the Overall Battery are called Essential Parameters.

Individual Cell Parameters: The parameters like Cell Voltage ,Balance State , Cell Temperature that are monitored for individual cell are called Individual Cell parameters.