COLLEGE OF BUSINESS EDUCATION

INDUSTRIAL PRACTICAL TRAINING REPORT(IPT)

DEPARTMENT OF ICT & MATHEMATICS

BACHELOR DEGREE IN INFORMATION TECHNOLOGY

FIELD PRACTICAL TRAINING REPORT

CONDUCTED AT : XFREY GLOBAL COMPANY LTD.

DAR ES SALAAM SOKOINE DRIVE STEET (Tancot House)

PREPAREDBY MWASILE PROSPER YALEDI.

Duration: 22 JULY – 14 SEPTEMBER 2024(8 weeks)

NTA Level :7

Field Report is submitted to the Department of ICT & MATHEMATICS in partial fulfillment of the Requirement for the award of Bachelor Degree in Information Technology of Collage of Business Education (CBE).

Acknowledgment

First and foremost, I would like to express my heartfelt gratitude to the Almighty God for His unwavering blessings and guidance, which have enabled me to successfully complete my practical training. The compilation of this report was made possible through the combined efforts of many individuals, both directly and indirectly involved. While it is challenging to acknowledge all of them individually, those mentioned here represent a collective effort.

I am also deeply indebted to my parents for their invaluable support throughout my educational journey. Their unwavering assistance has been a source of great motivation.
I extend my special thanks to the management of **XFREY Company LTD** for their moral support and for providing me with the opportunity to undertake practical training within their organization.

Furthermore, I would like to express my sincere gratitude to **Mr. Iman Xavery, Miss. Marceline** from the Technical Accountant department for their continuous guidance and support throughout my practical training, from the very first day to its successful completion.

DECLARATION

I Mwasile Prosper Registration:03.021.01.01.2023. I, hereby declare that the report has been prepared by me for partial fulfillment of the Bachelor Degree in Information Technology of Collage of Business Education (CBE).Any matter discussed here does not. Offend any person or institution but only reflect experience and knowledge gained during the training period

However, my field work was under high efficiency and I gained a remarkable that could be memorable and for future activities.

Signature………………………

Mwasile Prosper.

DATE………………………….

Abstract

This document serves as my comprehensive practical training report, conducted at **XFREY Company LTD** from the **5th of August** to the **4th of October** 2022. The report is structured into distinct chapters, each dedicated to specific areas focusing on Web design and development, including Organization Background, Git, Github and Github-desktop, Bootstrap 5, Laravel, PHPMailer, Google App Password.

Contents

INTRODUCTION

Background of XFREY Ltd.

XFREY Ltd, headquartered in Dar es Salaam, is a multi-service private company offering comprehensive solutions across various sectors. Their primary services include **land surveying**, helping clients **procure legal documents**, **pest management**, **fumigation**, and **professional cleaning**. They also specialize in **deep cleaning**, **data analysis and visualization**, as well as **home services**, providing essential support to both individual and business clients.

Committed to customer satisfaction, XFREY ensures tailored services designed to address the specific needs of their clients, with the goal of creating long-term value and strong community engagement.

VISION

To establish XFREY Ltd as the premier provider of multi-service solutions across Tanzania, recognized for its superior quality, reliability, and impact in both residential and commercial markets.

MISSION

Xfrey Ltd is guided by the following principles:

- **Speed:** Meeting client demands on time without compromising service quality.
- **Quality:** Delivering precise, effective, and dependable solutions that adhere to the highest standards.
- **Value:** Offering cost-efficient services that provide clients with meaningful and measurable returns.

The company constantly evolves to adapt to industry changes while maintaining a customer-centric approach. XFREY’s mission is rooted in building trust through seamless service delivery, ensuring that every interaction creates a positive and lasting impression on clients

CHAPTER 1

Windows 10 Pro Installation

The following are outlines the process for installing Windows 10 Pro, highlighting system requirements, installation methods, and post-installation setup. Windows 10 Pro is designed for professional users, offering enhanced security and management features.

System Requirements

Before installation, ensure the following minimum requirements are met:

- Processor: 1 GHz or faster compatible processor with at least 2 cores.

- RAM: 4 GB or more. But I used 8GB.

- Storage: 64 GB or larger storage device.

- Graphics Card: DirectX 9 or later with WDDM 1.0 driver.

- Display: > 800 x 600 resolution.

- Internet Connection: Required for updates and certain features. Update of window drivers need more network example Microsoft office 2021.

Installation there are different methods like to upgrade from Previous Versions, Installation via Windows Media Creation Tool, but I used a clean installation using USB

Windows 10 Pro can be installed through various methods:

Installation Using USB

Prerequisites: A USB flash drive (at least 8 GB) and the Windows 10 Pro ISO file. Power ISO file can be downloaded from official website, also you can use Rufus tool.

Process

1. Create a bootable USB drive using tools Rufus.

2. Insert the USB drive into your target computer.

3. Restart and enter the BIOS/UEFI settings to boot from USB.

4. Follow the on-screen instructions to complete the installation.(make sure you follow right instruction)

Installation Process

1. Booting from Installation Media: Select the language and preferences.

2. Installation Type: Custom installation.

3. Partitioning: Select the hard drive partition for installation. (For clean installs, delete existing partitions as needed.) Be careful here if you have more important things make sure you do back up by moving to other storage device where you can get any time you want apart from targeted computer.

4. Setup: The installation will copy files and install features, requiring several restarts.

5. Configuration: After installation, set up preferences, including region, keyboard layout, and account setup.

Post-Installation Setup

Activation

- Activate Windows: Use a valid product key to activate Windows 10 Pro through Settings > Update & Security > Activation.

Driver Installation

- Update Drivers: Ensure all hardware drivers are up-to-date via Device Manager or manufacturer websites.

System Updates

- Check for Updates: Go to Settings > Update & Security > Windows Update and download any available updates.

Security Configuration

- Windows Defender: Activate Windows Defender and set up a firewall.

- Backup: Set up a backup solution using Windows Backup or third-party software.

Conclusion

Installing Windows 10 Pro enhances system capabilities and security for professional users. Following the outlined steps ensures a smooth installation and setup process. Proper preparation, including meeting system requirements and backing up data, is crucial for successful installation.

Some tools and Commands I used to manage the website which I was producing (Databenki.co.tz)

This provides an overview of essential commands and tools for web development, particularly in a PHP and Node.js environment. These tools facilitate the development and management of web applications, making the process more efficient for developers.

Composer Install

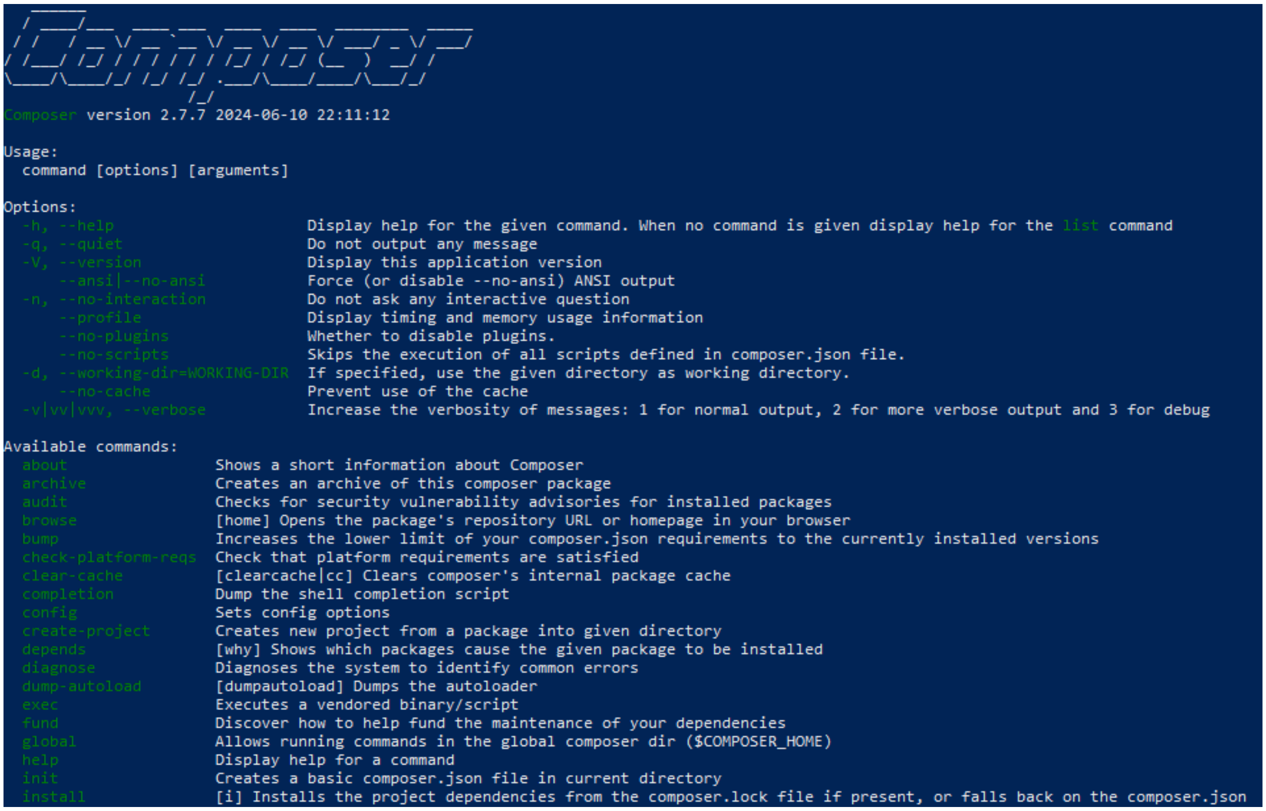
Command: *composer install* (run the command on Window Power shell, or on terminal of visual studio code wherever you want, but I run on both Window power shell and Terminal of visual studio code.

Purpose: This command is used to install all the dependencies listed in the composer.json file for a PHP project.

Usage:

- It reads the dependencies and versions specified in composer.json and installs them into the vendor directory.

- Useful for setting up a project environment quickly after cloning a repository.



```
Composer version 2.7.7 2024-06-10 22:11:12

Usage:
  command [options] [arguments]

Options:
  -h, --help                     Display help for the given command. When no command is given display help for the list command
  -q, --quiet                    Do not output any message
  -V, --version                  Display this application version
      --ansi|--no-ansi           Force (or disable --no-ansi) ANSI output
  -n, --no-interaction           Do not ask any interactive question
      --profile                  Display timing and memory usage information
      --no-plugins               Whether to disable plugins.
      --no-scripts               Skips the execution of all scripts defined in composer.json file.
  -d, --working-dir=WORKING-DIR  If specified, use the given directory as working directory.
      --no-cache                 Prevent use of the cache
  -v|vv|vvv, --verbose           Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug

Available commands:
  about                 Shows a short information about Composer
  archive               Creates an archive of this composer package
  audit                 Checks for security vulnerability advisories for installed packages
  browse                [home] Opens the package's repository URL or homepage in your browser
  bump                  Increases the lower limit of your composer.json requirements to the currently installed versions
  check-platform-reqs   Check that platform requirements are satisfied
  clear-cache           [clearcache|cc] Clears composer's internal package cache
  completion            Dump the shell completion script
  config                Sets config options
  create-project        Creates new project from a package into given directory
  depends               [why] Shows which packages cause the given package to be installed
  diagnose              Diagnoses the system to identify common errors
  dump-autoload         [dumpautoload] Dumps the autoloader
  exec                  Executes a vendored binary/script
  fund                  Discover how to help fund the maintenance of your dependencies
  global                Allows running commands in the global composer dir ($COMPOSER_HOME)
  help                  Display help for a command
  init                  Creates a basic composer.json file in current directory
  install               [i] Installs the project dependencies from the composer.lock file if present, or falls back on the composer.json
```

PHP Artisan Serve

Command: *php artisan serve*

Purpose: This command starts the built-in PHP development server for Laravel applications. This command gives you a clear link to follow to go to see the results of the whole website which is already saved to a DNS.

Usage

- Typically runs on http://localhost:8000 but I ran more on terminal of visual studio code.

PS C:\xampp\htdocs\Databenki> php artisan serve

- Simplifies local development by automatically handling routing and serving requests without requiring a full web server setup.

NPM Run Watch

Command: *npm run watch*

Purpose: This command compiles assets and watches for changes in JavaScript/CSS files using Node Package Manager (NPM).

Usage

- Continuously monitors files and automatically recompiles them when changes are detected.

- Essential for front-end development to streamline the workflow, particularly with frameworks like Vue.js or React.

PHP Version Check

Command: php –v

PS C:\xampp\htdocs\bomba> php -v

PHP 8.1.10 (cli) (built: Aug 30 2022 18:05:49) (ZTS Visual C++ 2019 x64)

Copyright (c) the PHP Group

Zend Engine v4.1.10, Copyright (c) Zend Technologies

Usage

- Helps ensure compatibility of the PHP environment with project requirements.

- Useful for debugging or confirming the installation of PHP.

Node Version Check

Command: node -v

Purpose: Displays the current version of Node.js installed on the system.

PS C:\xampp\htdocs\bomba> node –v

v20.16.0

Usage:

- Similar to php -v, it confirms the installation of Node.js and checks compatibility with project dependencies.

XAMPP Installation

Purpose: XAMPP is a free and open-source cross-platform web server solution stack package.

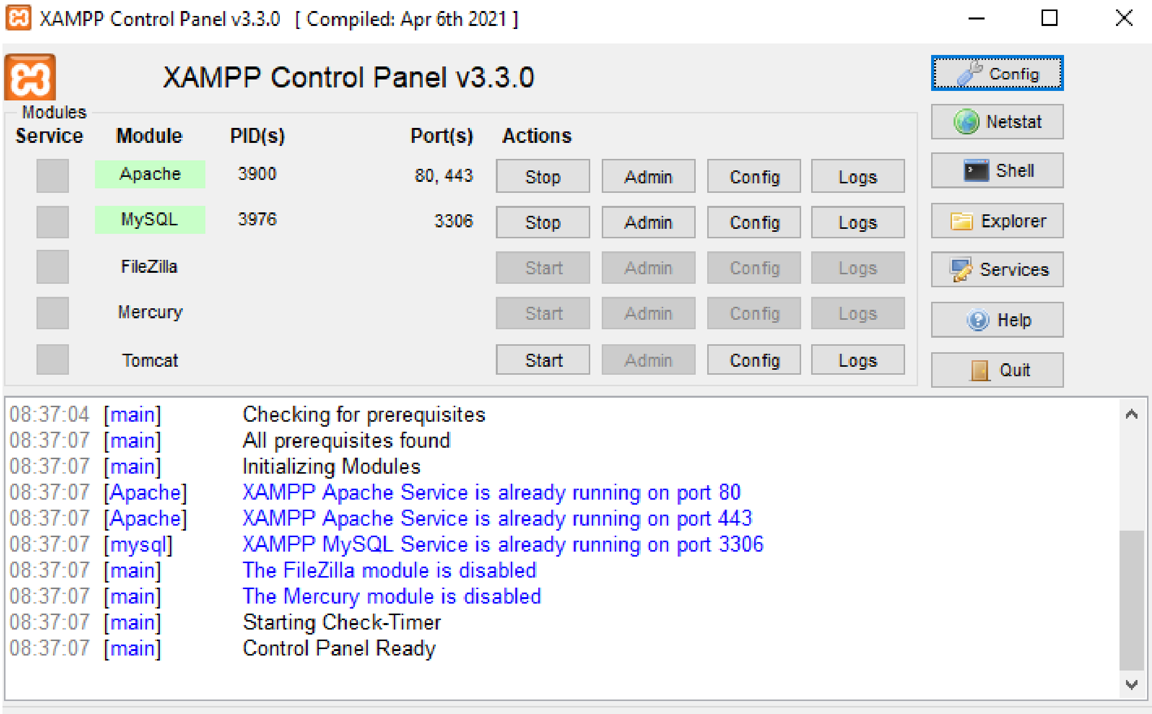
Installation Steps

1. Download the XAMPP installer from the official website.

2. Run the installer and follow the setup prompts.

3. XAMPP is beneficial for developing PHP applications locally.

4. Start the XAMPP Control Panel to manage services like Apache and MySQL.



Visual Studio Code Installation

Tool: Visual Studio Code (VS Code)

Purpose: VS Code is a lightweight but powerful source code editor.

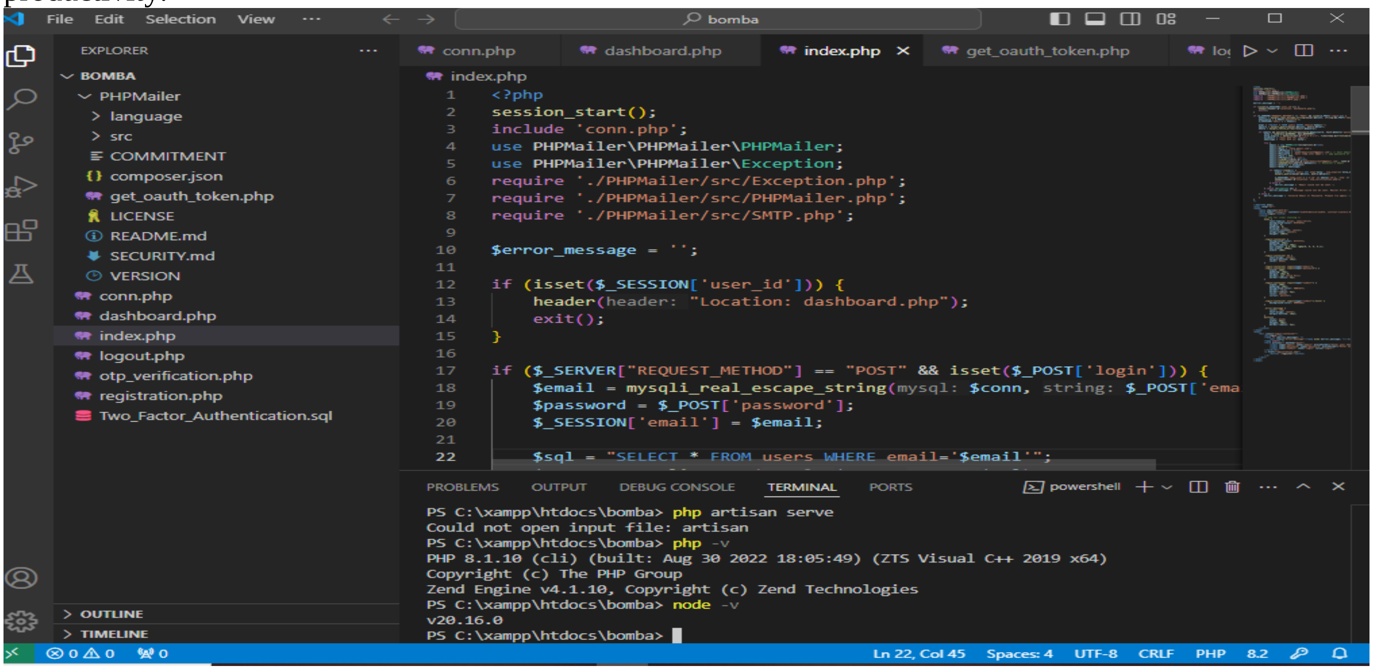
Installation Steps

1. Download the installer from the official Visual Studio Code website.

2. Run the installer and follow the setup instructions.

3. After installation, customize settings and install extensions for PHP, Node.js, and other languages as needed.

4. VS Code supports features like debugging, version control, and code completion, enhancing productivity.



Conclusion

Understanding and effectively using these commands and tools is essential for web development. They streamline workflows, manage dependencies, and provide robust environments for building and testing applications. Mastery of these tools is particularly beneficial for university developers pursuing careers in software development

Changing Execution policy

Windows PowerShell uses execution policies to determine the conditions under which PowerShell loads configuration files and runs scripts. By default, the execution policy may restrict the execution of scripts for security reasons. This report outlines how to check and change the execution policy using PowerShell commands.

Checking the Current Execution Policy

To view the current execution policy, use the following command:

powershell

Get-ExecutionPolicy

This command returns the current execution policy setting, which could be one of several options, including:

- Restricted: No scripts can be run.

- AllSigned: Only scripts signed by a trusted publisher can be executed.

- RemoteSigned: Scripts created locally can run, but scripts downloaded from the internet must be signed.

- Unrestricted: All scripts can run, but warnings will appear for scripts downloaded from the internet.

Changing the Execution Policy

To change the execution policy to RemoteSigned, use the following command:

powershell

Set-ExecutionPolicy RemoteSigned

Execution Policy Change

The execution policy helps protect you from scripts that you do not trust. Changing the execution policy might expose

you to the security risks described in the about_Execution_Policies help topic at

https:/go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?

[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"):

Important Considerations

1. Administrator Privileges: Changing the execution policy may require running PowerShell as an administrator.

2. Scope: You can specify the scope of the change (e.g., -Scope CurrentUser, -Scope LocalMachine) to limit the policy change to a specific user or the entire system.

Example Command with Scope:

powershell

Set-ExecutionPolicy RemoteSigned -Scope CurrentUser

The execution policy helps protect you from scripts that you do not trust. Changing the execution policy might expose

you to the security risks described in the about_Execution_Policies help topic at

https:/go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?

[Y] Yes

CHAPTER 2

WEBSITE CREATIONS

Creating a Live Notification Icon with Vue.js

Introduction

In modern web applications, live notifications are crucial for enhancing user engagement and experience. This report outlines the process of implementing a live notification icon using Vue.js that fetches notifications from a database. It covers the architecture, data fetching mechanisms, real-time updates, and best practices.

Requirements

Technical Stack

1. Vue.js: Framework for building the user interface.

2. Axios: For API requests to fetch notifications.

3. Node.js with Express: For backend services to handle database interactions.

4. Socket.IO: For real-time updates (optional).

5. MongoDB (or any database): For storing notifications.

Environment Setup

1. Create a Vue Project:

2. Install Dependencies:

3. Set Up Backend:

Implementation Steps

Step 1: Setting Up the Backend

1.1. Create Express Server

In server/index.js, set up a basic Express server:

```
// API endpoint to fetch notifications
app.get('/api/notifications', async (req, res) => {
  const notifications = await Notification.find().sort({ timestamp: -1 });
  res.json(notifications);
});

// Start the server
app.listen(port, () => {
  console.log(`Server running on http://localhost:${port}`);
});
```

Step 2: Creating the Vue Notification Icon Component

2.1. Create NotificationIcon Component

Create a new file src/components/NotificationIcon.vue:

Step 3: Integrating the Notification Icon in the Main Application

3.1. Update App.vue

Modify src/App.vue to include the NotificationIcon component:

Step 4: Optional Real-time Notifications with Socket.IO

To enable real-time notifications, set up Socket.IO on both the server and client sides.

4.1. Update Server with Socket.IO

In server/index.js, add Socket.IO functionality:

DATABASE USING SQL COMMANDS -- phpMyAdmin SQL Dump

-- version 5.2.0

-- https://www.phpmyadmin.net/

--

-- Host: 127.0.0.1

-- Generation Time: Sep 21, 2024 at 01:29 PM

-- Server version: 10.4.25-MariaDB

-- PHP Version: 8.1.10

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";

START TRANSACTION;

SET time_zone = "+00:00";

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;

/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;

/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;

/*!40101 SET NAMES utf8mb4 */;

--

-- Database: `notification`

```sql
--

-- --------------------------------------------------------

--
-- Table structure for table `notifications`
--

CREATE TABLE `notifications` (
  `id` int(11) NOT NULL,
  `user_id` int(11) NOT NULL,
  `message` varchar(255) NOT NULL,
  `is_read` tinyint(1) DEFAULT 0,
  `created_at` timestamp NOT NULL DEFAULT current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `notifications`
--

INSERT INTO `notifications` (`id`, `user_id`, `message`, `is_read`, `created_at`) VALUES
(1, 1, 'Welcome to our website!', 0, '2024-08-13 13:30:18'),
(2, 2, 'You have a new message from John Doe.', 0, '2024-08-13 13:30:18'),
```

```
(3, 3, 'Your profile has been updated.', 0, '2024-08-13 13:30:18');


--
-- Indexes for dumped tables
--


--
-- Indexes for table `notifications`
--
ALTER TABLE `notifications`
  ADD PRIMARY KEY (`id`);


--
-- AUTO_INCREMENT for dumped tables
--


--
-- AUTO_INCREMENT for table `notifications`
--
ALTER TABLE `notifications`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=11;
COMMIT;
```

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;

/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;

/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;

Creating a Live Map Using Leaflet.js

Introduction

Leaflet.js is a powerful, open-source JavaScript library for interactive maps. It provides a variety of features that enable developers to create dynamic, customizable maps suitable for web applications. This report details the process of creating a live map using Leaflet.js, emphasizing advanced functionalities such as real-time data updates, custom layers, and event handling.

Requirements

Technical Stack

1.Leaflet.js: The core library for map rendering.

2. JavaScript: For scripting and interactivity.

3. HTML/CSS: For layout and styling.

4. WebSocket or API: For real-time data updates.

5. GeoJSON: For geographic data representation.

6. Node.js (optional): For backend server implementation.

Setup

1. Environment: Ensure a modern web development environment with Node.js and a package manager (npm/yarn).

2. Dependencies:

Bash

npm install leaflet

3. Basic HTML Structure:

Step 1: Initialize the Map

In app.js, initialize the Leaflet map and set its view:

javascript

```
const map = L.map('map').setView([51.505, -0.09], 13);

L.tileLayer('https://{s}.tile.openstreetmap.org/{z}/{x}/{y}.png', {

   maxZoom: 19,

}).addTo(map);
```

Step 2: Add Live Data Source

Using WebSockets or an API to fetch live data is crucial for a dynamic map. Below is an example using WebSockets:

javascript

```
const socket = new WebSocket('ws://yourserver.com/live-data');

socket.onmessage = function(event) {

   const data = JSON.parse(event.data);

   updateMap(data);

};
```

Step 3: Updating the Map with Live Data

Create a function to update the map with new markers or layers based on incoming data:

javascript

```
const markers = {};
function updateMap(data) {
    data.forEach(item => {
        const { id, lat, lng } = item;
          if (markers[id]) {
            // Update existing marker position
            markers[id].setLatLng([lat, lng]);
        } else {
            // Create a new marker
            const marker = L.marker([lat, lng]).addTo(map);
            markers[id] = marker;
        }
    });
}
```

Step 4: Custom Layers and Styling

You can enhance the map by adding custom layers or styles based on the data type:

javascript

```
function createCustomLayer(data) {
    const geoJsonLayer = L.geoJSON(data, {
        style: function(feature) {
            return { color: feature.properties.color || '#3388ff' };
        }
    });
```

```javascript
    geoJsonLayer.addTo(map);
}
```

Step 5: Adding Event Listeners

To improve interactivity, attach event listeners to markers or layers:

```javascript
markers[id].on('click', function() {
    // Display additional information or perform an action
    alert(`Marker ${id} clicked!`);
});
```

Step 6: Handling Map Events

Utilize map events for further interactivity, such as zooming or dragging:

```javascript
map.on('zoomend', function() {
    const zoomLevel = map.getZoom();
    console.log(`Current zoom level: ${zoomLevel}`);
});
```

Advanced Features

Clustering Markers

For maps with numerous markers, consider using the Leaflet.markercluster plugin to group nearby markers:

```bash
npm install leaflet.markercluster
```

Implement it as follows:

javascript

```
const markersCluster = L.markerClusterGroup();

map.addLayer(markersCluster);

// Inside updateMap function

markersCluster.clearLayers();

data.forEach(item => {

   const marker = L.marker([item.lat, item.lng]);

   markersCluster.addLayer(marker);

});
```

Creating Interactive Charts Using Vue.js

Introduction

Vue.js is a versatile JavaScript framework that facilitates the development of user interfaces. It excels in integrating with various libraries to produce dynamic and interactive visualizations. This report delves into advanced techniques for implementing charts in Vue.js applications, focusing on performance optimization, customization, interactivity, and best practices for large-scale applications.

Requirements

Environment Setup

1. Create a Vue Project:

bash

vue create advanced-chart-app

cd advanced-chart-app

2. Install Dependencies:

For Chart.js:

bash

npm install chart.js vue-chartjs

Implementation Steps

Step 1: Setting Up the Project Structure

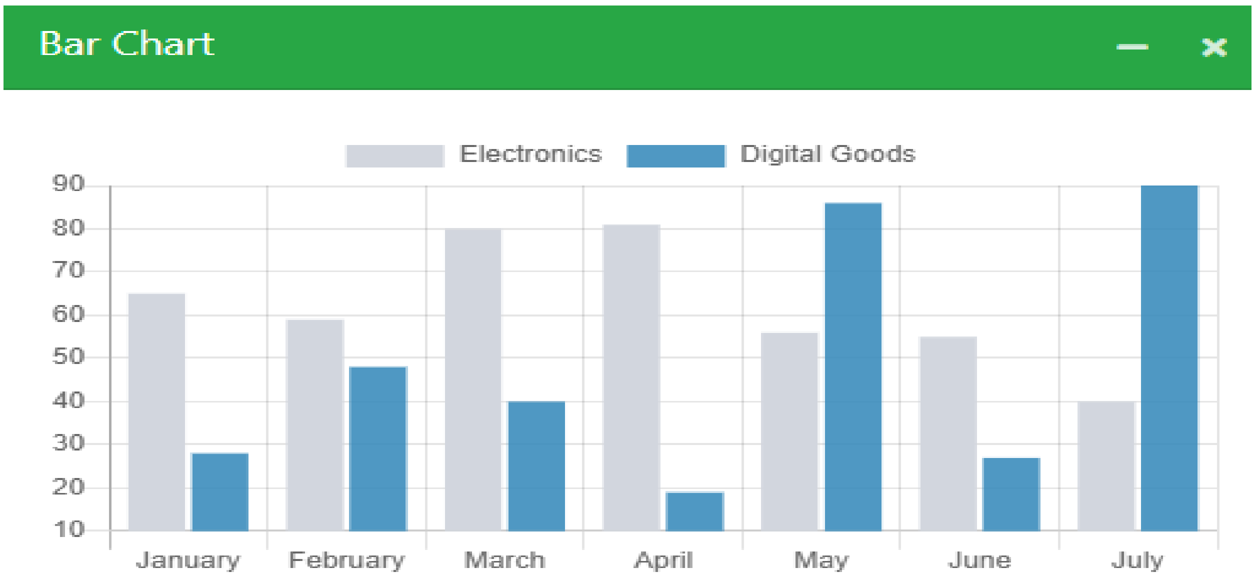
Organize your project with clear directories:

- src/components: For reusable chart components.

Step 2: Creating the Chart Component

Using Chart.js

Create a BarChart.vue component:



How to share files on local area network (LAN)……?!

Sharing files between two computers is a common task in offices, schools, and homes. One of the most reliable methods for transferring files directly between two systems is by using an Ethernet cable.

. **Benefits of Sharing Files via Ethernet Cable**

Using an Ethernet cable for file sharing between two computers offers several advantages:

- High-Speed Data Transfer: Ethernet connections can provide much faster transfer rates compared to Wi-Fi or external storage devices.

- Secure and Direct Connection: Since the connection is limited to the two devices, there's no risk of external interference or data breaches from online sources.

-No Need for Additional Hardware: No external devices like USB drives are needed for the file transfer.

- Works Without Internet Access: The two computers can transfer data directly without requiring an active internet connection.

. Equipment Required

- Ethernet Cable:A standard Cat5e or Cat6 Ethernet cable is needed. You can use either a straight-through cable or a crossover cable, as modern network cards support Auto MDI-X, which allows devices to communicate using either type.

- Two Computers: Both computers should have Ethernet ports and be turned on.

- Operating System Compatibility: The method works on various operating systems, including Windows, macOS, and Linux. I will show you on windows especially window ten.

. Step-by-Step Guide to Sharing Files via Ethernet Cable

Connect the Computers A and B Using the Ethernet Cable (cross over cable due to are same devices)

1. Plug One End of the Ethernet Cable into Computer A: Connect one end of the Ethernet cable to the Ethernet port of the first computer.

2. Connect the Other End to Computer B: Plug the other end of the Ethernet cable into the second computer's Ethernet port.

Configure Network Settings

Each computer needs to be configured so they can communicate over the Ethernet connection.

For Windows Users:

1. Open the Network and Sharing Center:

   - Go to Control Panel> Network and Internet > Network and Sharing Center.

   - On the left side, click on Change adapter settings.

2. Configure IP Addresses Manually:

   - Right-click on the Ethernet connection and choose Properties.

   - Select Internet Protocol Version 4 (TCP/IPv4) and click Properties.

   - Choose Use the following IP address:

   -For Computer A:

   - IP Address: 192.168.1.1

     - Subnet Mask: 255.255.255.0

   - For Computer B:

     - IP Address: 192.168.1.2

     - Subnet Mask: 255.255.255.0

   - Leave the default gateway and DNS server fields blank and click *OK*.

3. Verify Connection:

   - Open the Command Prompt (type cmd in the search bar) on Computer A.

   - Type ping 192.168.1.2 (the IP address of Computer B) and press Enter.

   - If you get a successful ping response, the two computers are successfully connected.

Follow these all steps on both computers

1. Turn On Network Discovery and File Sharing:

- In Network and Sharing Center, click Change advanced sharing settings.

- Under the Private section, ensure that Turn on network discovery and Turn on file and printer sharing are both enabled.

-In all networks turn off the window security and password for easy transfer. Note if you will not turn off it will make restriction for security purpose just temporary.

- Click Save changes.

2. Share a Folder:

- Right-click on the folder you want to share, select Properties, and go to the Sharing tab.

- Click Share and choose who can access the folder (usually select Everyone).

- Click Apply and "OK".

How to access Shared Files

Once both computers are connected and file sharing is enabled, you can access the shared files.

1. Access the Shared Folder:

- Open File Explorer and click on Network on the left sidebar.

- You should see the other computer listed. Click on it to access shared folders.

2. Transfer Files:

- Drag and drop files between the two computers or copy and paste as needed.

5. Conclusion

Using an Ethernet cable to share files between two computers is an efficient, fast, and secure method, especially for large file transfers. The process involves configuring the network settings, enabling file sharing, and directly transferring files without the need for external storage devices or the internet. The speed and directness of Ethernet make it an ideal solution for scenarios requiring secure and high-speed transfers.

This method is especially useful for local environments like small offices or homes where a quick, reliable connection is required for large data transfers.

Sharing Computer Networks Using AnyDesk

. Introduction

Sharing computer networks remotely has become increasingly essential in today's digital age, especially with the growing need for remote collaboration and troubleshooting. AnyDesk is one of the leading remote desktop software solutions that allows users to access and control devices from remote locations. This explores how AnyDesk facilitates sharing computer networks, its features, benefits, and security considerations.

Overview of AnyDesk

AnyDesk is a lightweight remote desktop application that provides fast, secure, and easy-to-use remote access. It is cross-platform, compatible with Windows, macOS, Linux, Android, and iOS, and allows users to connect to computers and mobile devices remotely. AnyDesk is particularly popular for technical support, IT troubleshooting, and collaborative work.

Key Features:

- Remote Access and Control: Provides full control of a remote device as if the user were sitting in front of it.

- High Performance: Utilizes DeskRT, a proprietary codec, which ensures low latency and high frame rates, even over weak internet connections.

- File Transfer:Enables users to copy files between connected devices easily.

- Cross-Platform Compatibility: Supports a wide range of operating systems, allowing access across devices.

- Security: Uses banking-standard TLS 1.2 technology and RSA 2048 encryption to ensure secure connections.

- Session Recording:Allows for session recording, which can be valuable for audits and training purposes.

Steps for Sharing a Computer Network Using AnyDesk

To share a computer network using AnyDesk, follow these steps:

Installing AnyDesk

1. Download AnyDesk: Visit the [AnyDesk official website](https://anydesk.com) to download the application on both the host (the computer to be controlled) and the client (the device accessing the remote network).

2. Install the Software: Complete the installation on both devices. AnyDesk is available for multiple platforms, so select the appropriate version for your operating system.

Connecting to the Remote Device

1. Open AnyDesk on Both Devices: Launch AnyDesk on both the host and client devices.

2. Enter the AnyDesk Address: Each device will display a unique AnyDesk address (ID). The client enters the host's AnyDesk ID to request access.

3. Grant Permission: The host will receive a prompt asking for permission to allow the connection. Once the host accepts, the client can view or control the host device, depending on the permissions granted.

Network Sharing

- Accessing Files and Applications: Once connected, the client can access the host's files, applications, and network resources. This is useful for accessing shared folders, using enterprise software, or managing network settings.

- File Transfer: To transfer files, the client can drag and drop files from their local computer to the host or use the clipboard synchronization feature to copy and paste content between devices.

. **Benefits of Using AnyDesk for Network Sharing**

Remote Work and Collaboration

AnyDesk allows employees or IT personnel to work remotely by accessing office networks from anywhere. It enables real-time collaboration, allowing users to work on shared documents, access software, and manage network devices from different locations.

Technical Support

AnyDesk is widely used by IT professionals for troubleshooting and resolving issues on client machines. By sharing networks remotely, support teams can diagnose and fix problems without physically being present, reducing downtime and increasing efficiency.

Cross-Platform Compatibility

With AnyDesk, users can access different operating systems without the need for multiple software solutions. This flexibility is critical in environments with mixed OS infrastructures.

Security

AnyDesk's encryption protocols and session permissions provide a secure environment for network sharing. The ability to restrict access, define permissions, and monitor remote sessions ensures that sensitive information is protected.

Security Considerations

While AnyDesk provides secure remote access, some key security practices should be followed when sharing networks:

- Authentication: Always authenticate the identity of the person requesting access to avoid unauthorized use.

- Permissions:Set appropriate permissions to limit the client's access to sensitive files and applications.

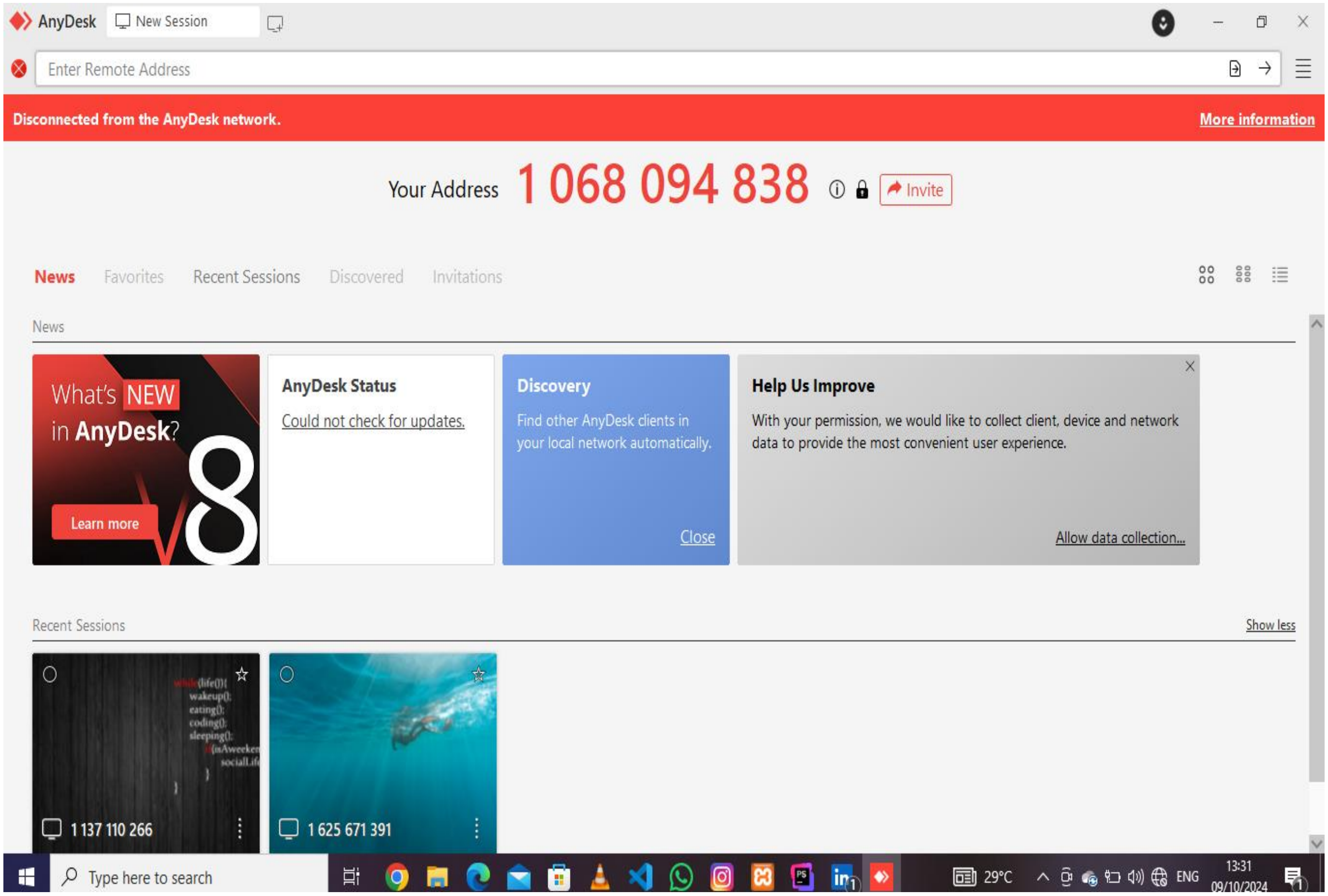
- Encryption: Ensure all connections are encrypted using AnyDesk's built-in encryption protocols.

- Session Monitoring: It is recommended to monitor and record remote sessions for auditing purposes.

- Update Software: Regularly update AnyDesk to benefit from the latest security features and patches.

Conclusion

Sharing computer networks using AnyDesk is an efficient and secure solution for remote access and collaboration. With its fast performance, ease of use, and robust security, AnyDesk facilitates seamless network sharing across different devices and operating systems. Proper security measures and access control are essential to safeguard sensitive data during remote sessions. In conclusion, AnyDesk is a valuable tool for organizations and individuals needing remote access, technical support, and network resource sharing.


AnyDesk
New Session
Enter Remote Address
Disconnected from the AnyDesk network.
More information
Your Address 1 068 094 838
Invite
News
Favorites
Recent Sessions
Discovered
Invitations
News
What's NEW in AnyDesk?
Learn more
AnyDesk Status
Could not check for updates.
Discovery
Find other AnyDesk clients in your local network automatically.
Close
Help Us Improve
With your permission, we would like to collect client, device and network data to provide the most convenient user experience.
Allow data collection...
Recent Sessions
Show less
1 137 110 266
1 625 671 391
Type here to search
29°C
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13:31
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Two factor authentication

Introduction two factor authentication help in managing account and knowing how many session do client logged in at that time.

Requirements of making two factor authentication

1. PHPMailer
2. Message system (SMS) using twilio console.
3. OTP Verification.
4. Database connections.

In order to use PHPMailer you need to have a Gmail account and in Google app you need to have app password in order to use Mail well.
Also there is need of database which will help user in backed to know how many times you login also in how many session you login.

Advantage of two factor authentication is for security purpose help user to manage accounts and also restrict un protective login into account.
This helps much in security and make customers free from blackweb.

CHAPTER THREE

LIMITATION OF THE STUDY (CONCLUTION AND RECOMMENDATIONS CHALLENGES)

Limitation of the study

The limitation that bring some difficult during the IPT duration was some of the area

Conclusion

The supervised industrial attachment of the college give, students the opportunity to apply and put what has been learned in classes into practice. This exposes them to work methods not taught in the class.

It also provides an opportunity for the student to assess their interests in their career been undertaken and also acquaint them with expectations of working in a highly competitive environment.

The training strengthens the linkage between the college and other institution all over the country. In review the training has been a successful and I was able to gain most of it practical skills, I made connection with different types of people.

This attachment with Xfrey Global company Agency has made me gain much practical knowledge and experience in my field of study (technical)

The training has equipped me with some integrity like being punctual, being submissive to and taking views of supervisors, communication skills and efficient in task and problem management.

As a result, my objectives were well achieved. Not only did I gain practical skill but also acquired Self-managerial and good interpersonal skills.

This training was of good help to me therefore it should be maintained for student to learn more practically as I did and I hope other interns achieve as much as I did.

I was able grow my interest in my career and make transition from what I have been learning from school to the outside world of work.

Recommendations

The attachment is very beneficial to students as it assists them to bland academic work with that of the industry therefore much emphasis and importance should be given to attachment exercise by the student.

Since the experience for the 8 weeks was enormous, the following should be put in place to better future benefits of students and the institution at large.

- The institution should allow enough time to the student for their preparation and search of their attachment and their requirement as provided by the institution as early as possible.
- The institution should also help the student with a financing institution and look forward to push grants to support their students on attachment.
- The students should be facilitated as it is as the students lack enough funds to facilitate their upkeep during the attachment training period