



# Brainwave

MATRIX SOLUTIONS

## **TASK LIST FOR 2nd PHASE OF INTERNSHIP**

Below are the details of the Task 2 assigned to you in your respective domain.  
Some domain might have two options separated with “or”. Interns are free to do any one of the tasks.  
All the best and we wish all of you achieve all your desires and future aspirations.

Regards  
Training Management Team  
Brainwave Matrix Solutions

### **1- Blockchain Technology Intern**

#### **a) Basic smart contract on Ethereum**

Create and deploy a basic smart contract on the Ethereum blockchain using Solidity. This project helps you understand the basics of smart contracts and the Ethereum network. Deploy the contract on an Ethereum test network using tools like Remix and MetaMask.

**OR**

#### **b) Supply chain tracking system**

Develop a supply chain tracking system using blockchain technology to ensure transparency and traceability of products. This project involves creating smart contracts and a frontend for tracking products. Write smart contracts for recording and tracking product information.

**Report submission in 15-20 days.**

### **2- Mobile App Development Intern**

#### **NEWS READER APP**

As an intern, your task is to Design and develop a news reader app in which latest and updated news are displayed. You can add as many features you like.

**OR**

### **FITNESS TRACKER APP**

Build an app for tracking fitness activities such as workouts, runs, and calorie intake  
**Report submission in 15-20 days**

### **3- Web Development Intern**

#### **a) Create a blogging platform**

Build a dynamic website where users can sign up, create, edit, and delete blog posts. Implement features like user authentication , comment sections, and a responsive design for optimal viewing on various devices.

**OR**

#### **b) Create an e-commerce website**

Create an e-commerce website using CSS, HTML , and JavaScript. You can add any features you can think of.

**Report submission in 15-20 days**

### **4- UI/UX Design Intern**

#### **User-centered design for healthcare app**

Design two designs for user-centered healthcare app that helps patients manage their health conditions, track medications, and communicate with healthcare providers. Conduct user research, create user personas, and prioritize accessibility and usability considerations in the design process.

**Report submission in 15-20 days.**

### **5- Java Programming intern**

#### **Create a Hospital Management System**

Develop a sophisticated Java program to manage various aspects of a hospital or healthcare facility. This system should include modules for patient registration, appointment scheduling, electronic health records (EHR), billing and invoicing, inventory management for medical supplies, and staff management.

**Report submission in 15-20 days.**

### **6- Python Programming intern**

#### **Create an Inventory Management System**

Build a Python program to manage inventory for a store or warehouse. The system should allow users to add, edit, and delete products, track inventory levels,

and generate reports such as low- stock alerts or sales summaries. Implement features like user authentication, data validation, and graphical user interface (GUI) for better usability.

**Report submission in 15-20 days.**

## **7- C++ Programming intern**

### **Create an online banking system**

Create a comprehensive C++ program for an online banking system. This system should allow users to create accounts, deposit and withdraw funds and transfer money.

**Report submission in 15-20 days.**

## **8- AI/ML intern**

### **CREDIT CARD FRAUD DETECTION**

Develop a fraud detection model to identify fraudulent credit card transactions. Use techniques like anomaly detection or supervised learning with imbalanced data.

**OR**

### **Text to image generation Application**

Develop a text-to-image generation application that takes textual descriptions as input and produces corresponding visual representations or images. The application should leverage techniques from the field of generative models

**Report submission in 15-20 days.**

## **9- Cyber Security Intern**

### **Create a malware detection project**

Create any malware detection tool that can detect malwares or build a sandbox environment for analyzing malware samples in a controlled environment. Implement features for executing malware samples, monitoring behaviour, and analyzing malicious activities.

**OR**

### **PASSWORD STRENGTH CHECKER**

Develop a tool to assess the strength of passwords entered by users. Implement algorithms to analyze factors such as length, complexity, and uniqueness to provide feedback on password strength.

**Report submission in 15-20 days.**

## **10- Data Science/ Data Analytics**

### **Social Media Sentiment Analysis**

Analyze social media data (e.g., Twitter) to understand public sentiment towards specific topics, products, or events. Use natural language processing (NLP) techniques to preprocess text data, extract sentiment scores, and visualize sentiment trends over time.

**Report submission in 15-20 days.**

## **11- Cloud Computing Intern**

### **E-commerce site or any static website with cloud storage**

This project involves creating a simple HTML/CSS website and deploying it to Google Cloud.

**OR**

### **Chat Application with Firebase**

Create a real-time chat application using Firebase. This project involves using Firebase services like Firestore, Authentication, and Hosting.

**Report submission in 15-20 days.**

## **12- Database Management Intern**

### **Database Development**

Develop a database for any entity you like i.e hospital ,library, school, movie rental, online store. This project involves more queries and database design. For example: For a e store database you can design tables for products, customers, orders, and payments. Write SQL queries to handle customer orders.

**Report submission in 15-20 days.**

## **13- Business Development/ Marketing/Finance intern**

**Conduct a comprehensive market analysis and develop a strategic business development plan which can be followed to get clients for our IT and Consulting Business and bring 50 followers to our linkedin page through your marketing skills and keep a track of it.**

**Report submission in 15-20 days.**

#### **14 - Graphic Design Intern**

Design 2 posters for a tech hackathon also design two designs for certificates for the winners of hackathon.

**Report submission in 15-20 days.**

#### **15- Digital Marketing and SEO intern**

Analyze any e-commerce website and marketing analytics data to track key performance indicators (KPIs) and prepare reports for management. This can include metrics such as website traffic, conversion rates, keyword rankings, and social media engagement and prepare a report listing ways to improve their site's SEO also bring 50 followers to our linkedin page through your marketing skills and keep a track of it.

**Report submission in 15-20 days.**

#### **16- Content Writing Intern**

Create 2 High-Quality Blog Posts on Recent Tech Developments

Create a post depicting advantages of linkedin and how one can leverage them to ace their careers

**Report submission in 15-20 days.**

#### **17- Operations/HR intern**

Develop and Implement an Employee Relations Support Program

Create a structured and efficient program that provides assistance with employee relations matters such as conflict resolution, disciplinary actions, and grievance handling. This can involve conducting initial investigations, documenting incidents, and providing administrative support to HR managers..

**Report submission in 15-20 days.**

