



WEB APPLICATION FOR STOCK MARKET TICKER INFORMATION

ROHAN RAMAN

17BCE0266

INTRODUCTION

- My task was to build a website to display the information for the various stock market in the National Stock Exchange (NSE). Since I wasn't very familiar with the terms in the stock market, I was first briefed regarding the same where I was familiarized with the terms and nomenclature. I was given various tasks like calling the company's API endpoint and displaying the required data. For making these HTTP requests I used the axios library which is a part of the react.js framework. Further for certain things the data for which was not included in the database, the information had to be mined/scraped from the web for which I built a scraper using puppeteer. While trying to implement all of the above-mentioned tasks I learnt JavaScript as I went along. I learnt about new concepts like promises, asynchronous JavaScript and much more. I learnt a lot during the 40 days as an intern at DARTS INDIA. I was also introduced to backend development using NodeJS and Express which were later used to setup the various routes of the website. I even learnt version control methods like Git and deploying a website using Heroku for commercial use. It was a very enriching experience and has made me more confident in my skills as a web developer.

ABOUT THE INDUSTRY

- Darts India Private Limited (i-darts™) is a software company specializing in building time critical information delivery products and applications for Capital Markets. Our products serve the various constituents of the Capital Market Ecosystem gain competitive advantage. Financial Market Exchanges (Stocks, commodities and currency derivatives), Brokers, Institutions and financial intermediaries use our products to deliver value added service to their clients.
- Our products are currently being used by brokers, Exchanges and information providers in India and Middle East.
- I-darts™ is founded on the belief that time and information are the key resources for gaining competitive advantage in today's rapidly changing marketplace. Precise information delivered without time delay can place unprecedented advantage in the hands of the user. It enables users to make proactive decisions before decisions are forced on them. I-darts™ expertise is best exploited by organizations where time value of information is very high.

- I-darts™ software applications leverage the power of Internet and electronic medium to the fullest extent and help Businesses and service providers empower their customers, partners and employees with information wherever they are, whenever they need.
- I-darts™ practices a flexible and “easy to do business with” type of culture. Whatever we do, we do it with passion and strive for excellence. Our team is handpicked. They not only possess the necessary technical skills but also share our passion and hunger for making a difference and delivering the best.



DARTS India Pvt. Ltd
Flat 'C', 2nd Floor
Ashika Chambers,
22, Chamiers Road,
Chennai – 600 028, India
Tel: +91 44 52110216, 0217
Email: info@i-darts.com

CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. Rohan Raman**, student of **Vellore Institute of Technology, Vellore** (**R. No – 17BCE0266**) has successfully completed an internship program with **i-Darts** from 22nd June 2020 to 31st July 2020 (40 days).

During the internship **Mr. Rohan Raman** was assigned to create and deploy a website to get the details of the various indicators in the stock market.

The following were introduced to / used by the intern:-

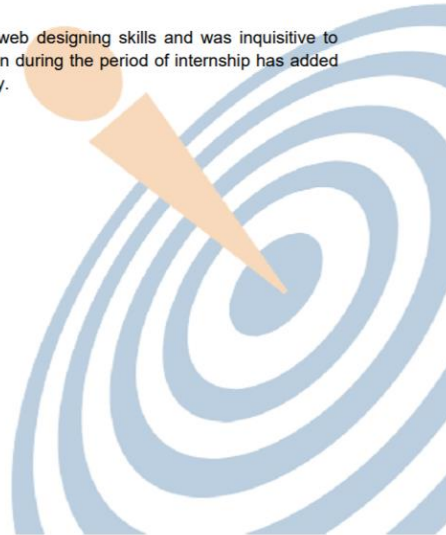
1. Basics of stock market
2. Basic web design
3. Node.js
4. API calling using axios (by facebook)
5. Crawling using puppeteer (by google)
6. Asynchronous Java Script

He demonstrated good coding / web designing skills and was inquisitive to learn new aspects. His contribution during the period of internship has added considerable value to the company.

Best Regards,

A handwritten signature in blue ink, appearing to read "R Venkatachari", is written over a blue diagonal line.

R Venkatachari
CEO



NEW SKILLS/TECHNOLOGIES LEARNT

NODEJS

- As an asynchronous event-driven JavaScript runtime, Node.js is designed to build scalable network applications.
- This is in contrast to today's more common concurrency model, in which OS threads are employed. Thread-based networking is relatively inefficient and very difficult to use. Furthermore, users of Node.js are free from worries of dead-locking the process, since there are no locks. Almost no function in Node.js directly performs I/O, so the process never blocks. Because nothing blocks, scalable systems are very reasonable to develop in Node.js.

PUPPETEER

- Puppeteer is a Node library by google which provides a high-level API to control Chrome or Chromium over the DevTools Protocol. Puppeteer runs headless by default, but can be configured to run full (non-headless) Chrome or Chromium.
- Generate screenshots and PDFs of pages.
- Crawl a SPA (Single-Page Application) and generate pre-rendered content (i.e. "SSR" (Server-Side Rendering)).
- Automate form submission, UI testing, keyboard input, etc.
- Create an up-to-date, automated testing environment. Run your tests directly in the latest version of Chrome using the latest JavaScript and browser features.
- Capture a timeline trace of your site to help diagnose performance issues.
- Test Chrome Extensions.

AXIOS

- Axios is a very popular JavaScript library you can use to perform HTTP requests, that works in both Browser and Node.js platforms. It supports all modern browsers, including support for IE8 and higher. It is promise-based, and this lets us write async/await code to perform XHR requests very easily.
- Using Axios has quite a few advantages over the native Fetch API:
 - supports older browsers (Fetch needs a polyfill)
 - has a way to abort a request
 - has a way to set a response timeout
 - performs automatic JSON data transformation
 - works in Node.js

HEROKU

- Heroku is a cloud platform as a service (PaaS) supporting several programming languages. One of the first cloud platforms, Heroku has been in development since June 2007, when it supported only the Ruby programming language, but now supports Java, Node.js, Scala, Clojure, Python, PHP, and Go. For this reason, Heroku is said to be a polyglot platform as it has features for a developer to build, run and scale applications in a similar manner across most languages.

GIT

- Git is a distributed version control system. So, What is a version Control System?
- A version Control system is a system which maintains different versions of your project when we work in a team or as an individual. (system managing changes to files) As the project progresses, new features get added to it. So, a version control system maintains all your different versions of your project for you and you can rollback to any version you want without causing any trouble to you for maintaining different versions by giving names to it like MyProject, MyProjectWithFeature1, etc.

- THANK YOU