# Cover Page

## Title

Assignment - Financial Tweets

## Live site Link

https://assignment-financial-tweets.herokuapp.com

Admin email: test@admin.com

Admin password: 12345678

## git

<http://gitlab.com/find.aman/assignment-financial-tweets>

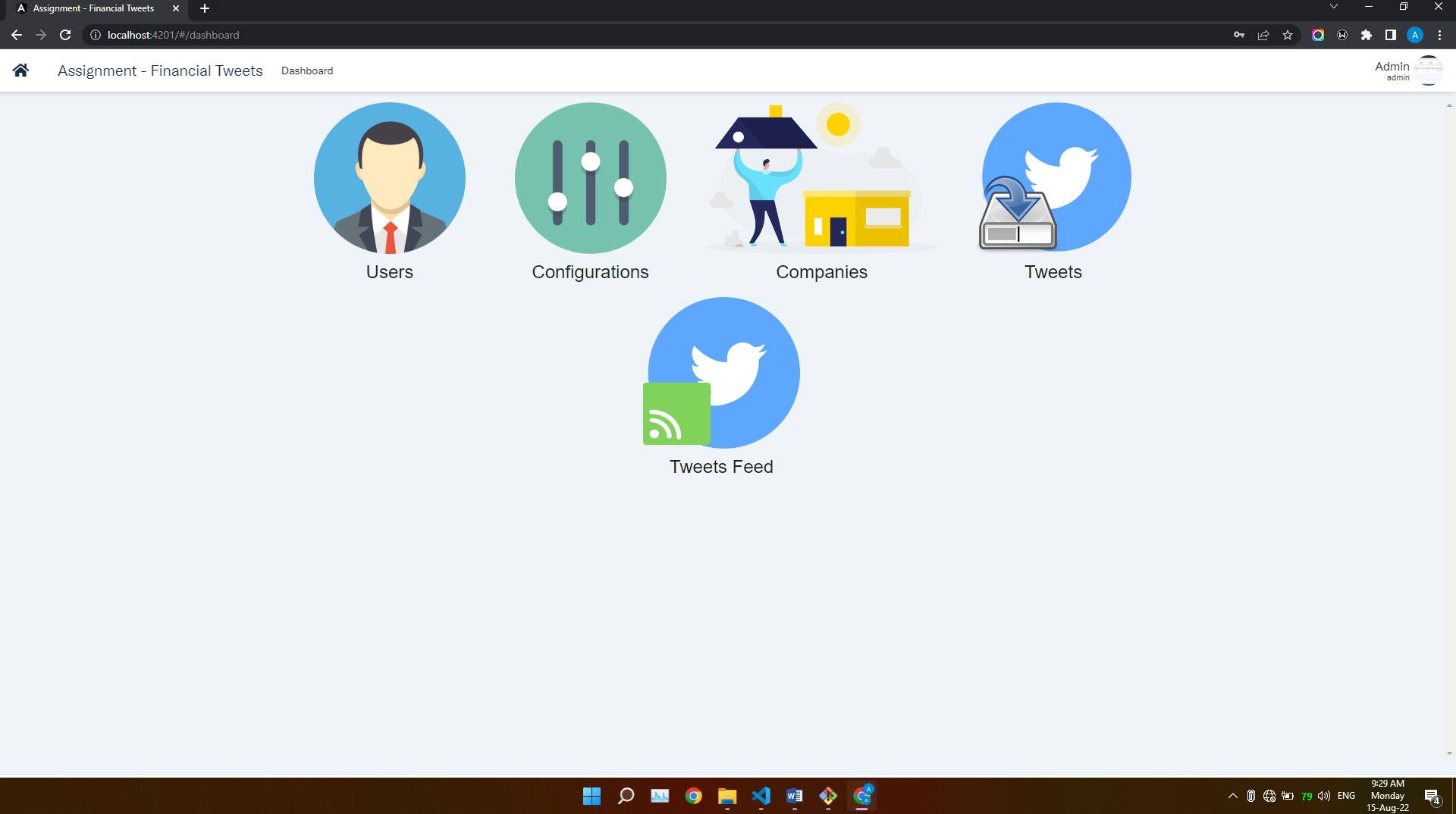
Please go through README.md for environment setup on live/dev

## Introduction

The idea of this project is to scrap the financial related tweets of different organizations on multiple topics and store it in the Indexed NoSql datastore and retrieve the information quickly by searching that how many different organizations are talking about current economic and financial matters on the social media platform e.g Twitter. and what are their beliefs.

## System overview

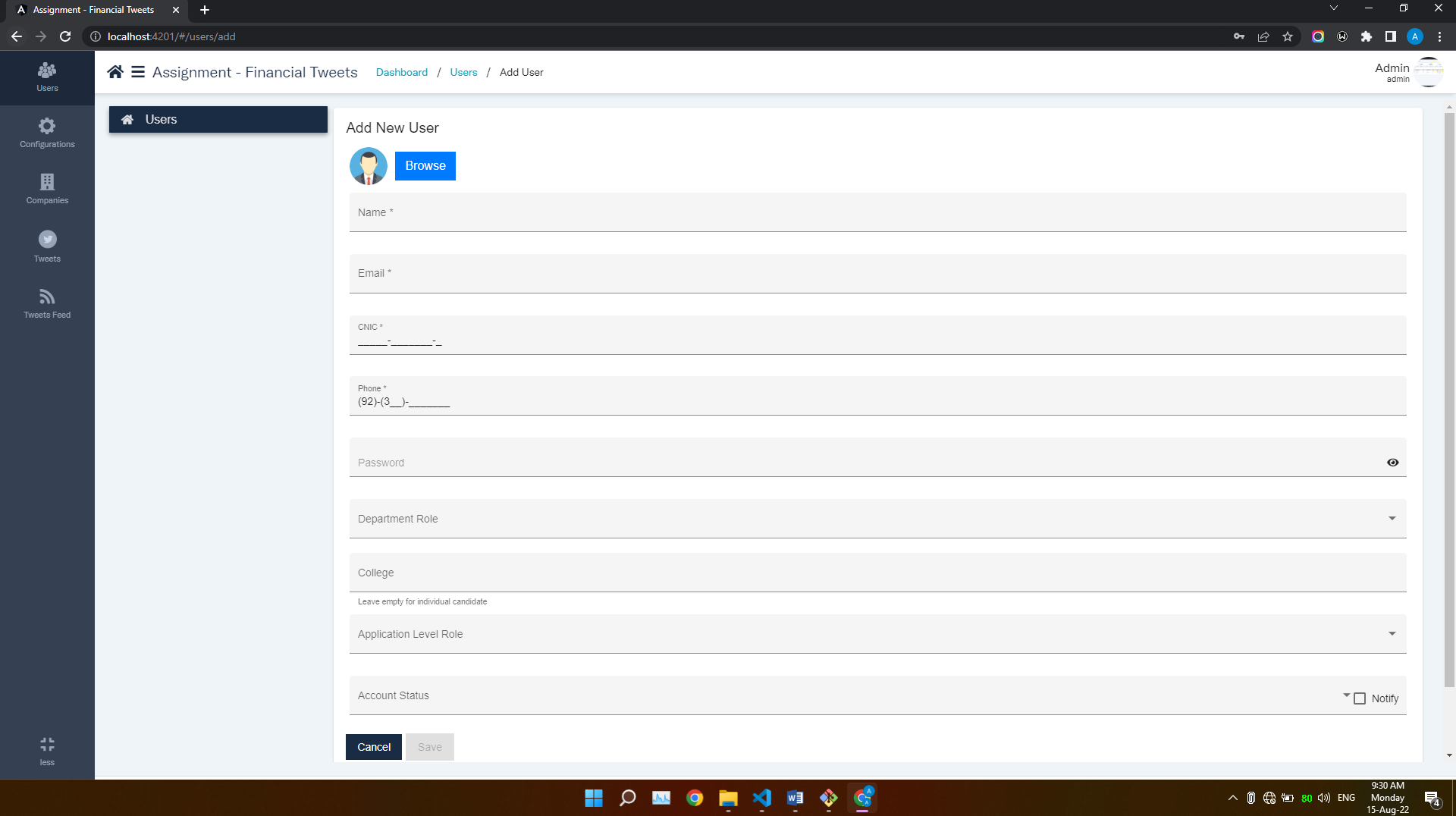
There are 5 major modules in this project

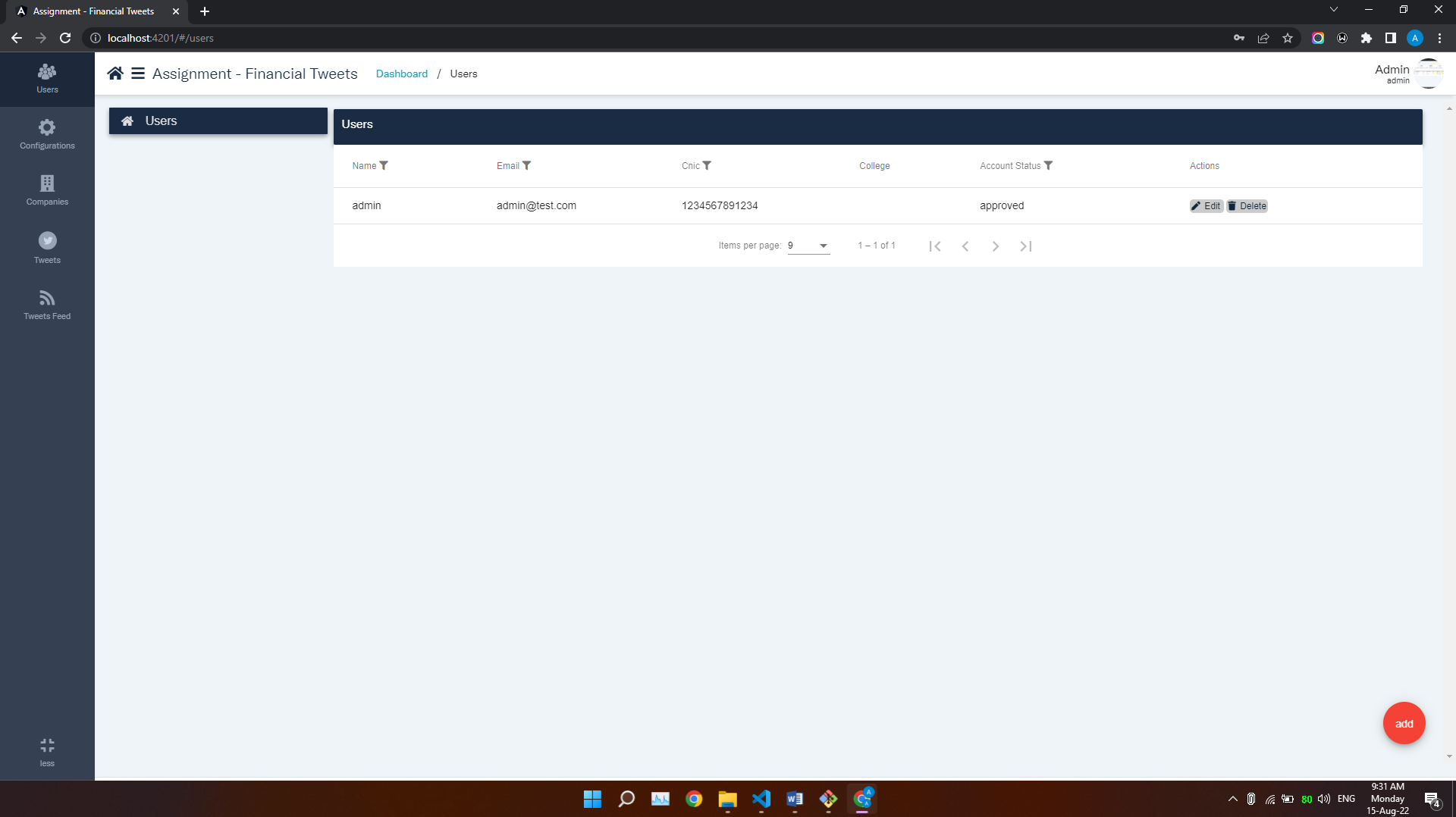


1. Users (for login account management)
2. Configurations (roles / permissions management, release notes management)
3. Companies management
4. Tweets management
5. Feed (tweets view, search & stats)

### Users

In this module, the system is adding, deleting, updating, list of users accounts

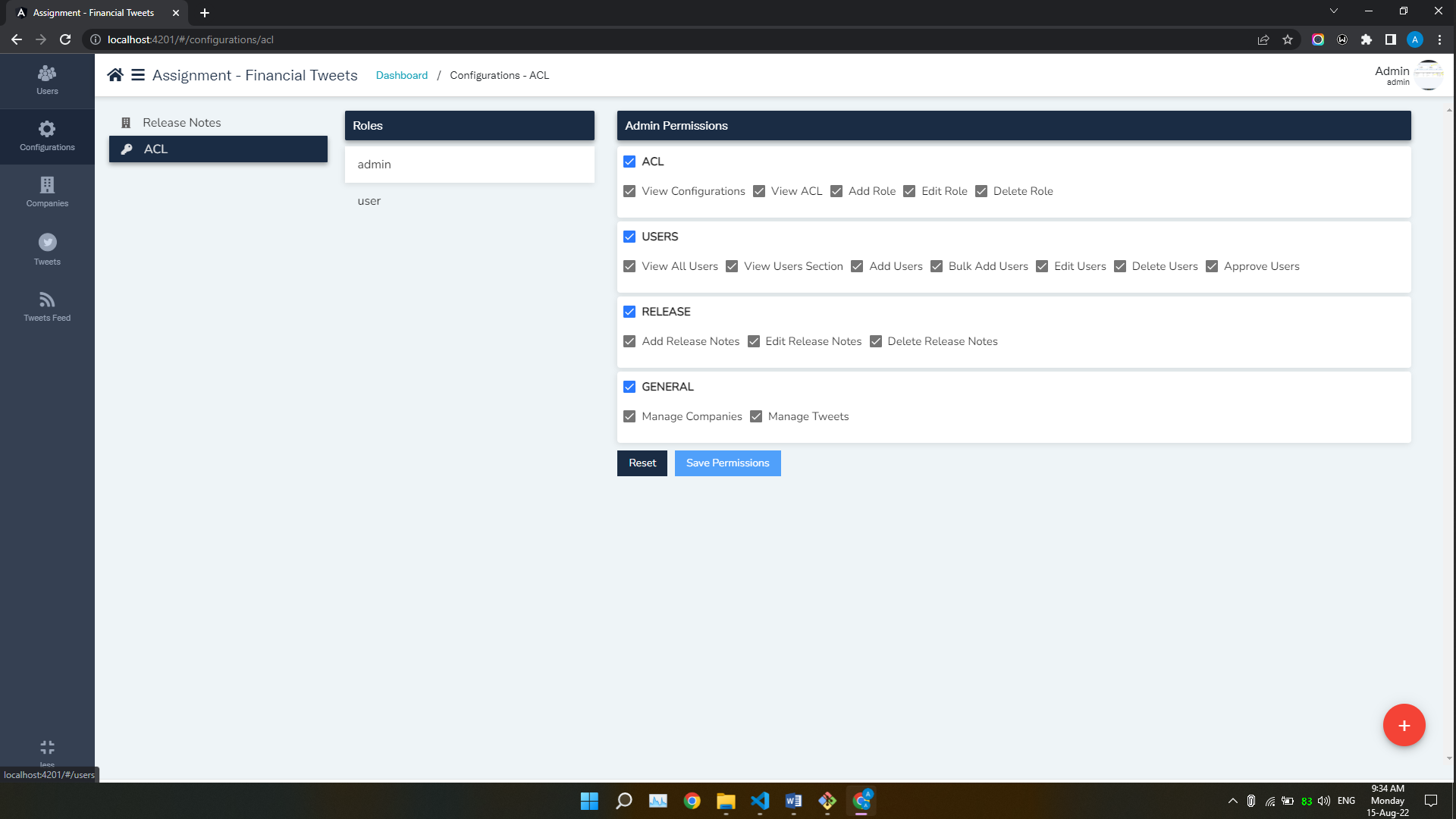


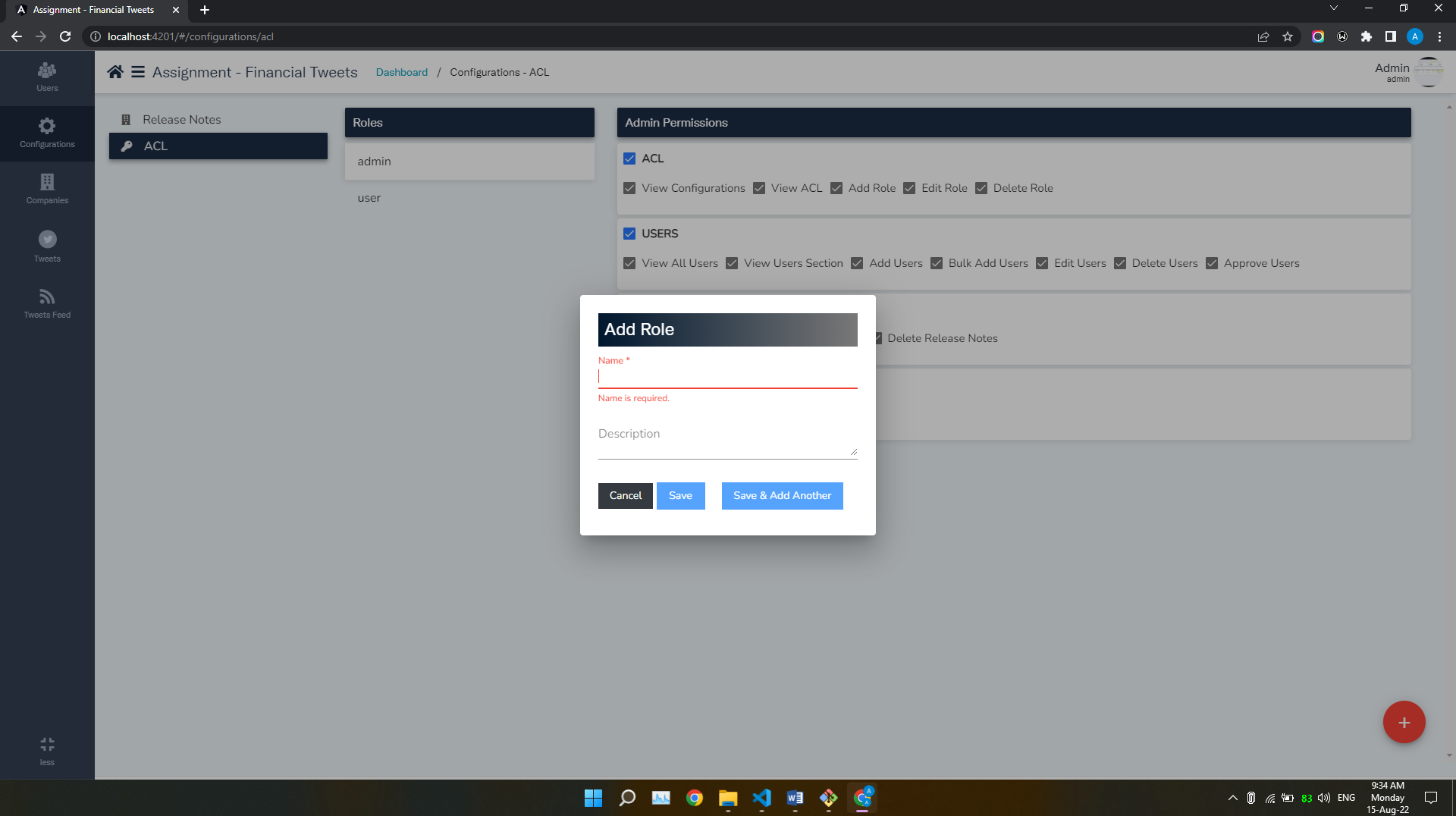


The backend service of the same module also takes care of the users login. Generating the JWT Auth token upon successful login that is supposed to be expired after 24hours.

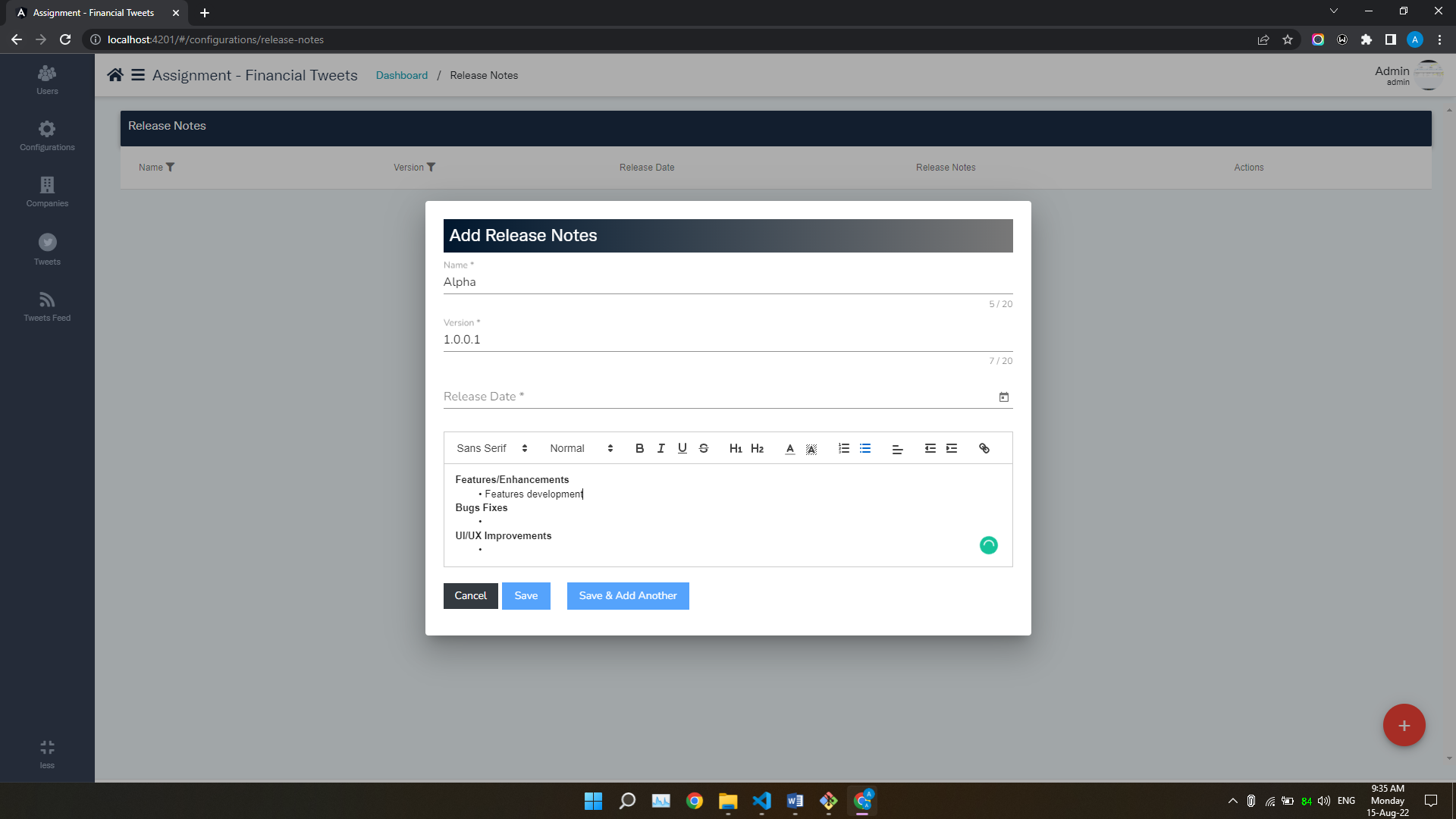
## Configurations module

This module is taking care of ACL (access control list), basically the role/permissions management of the system e.g. admin, user, any other custom made role



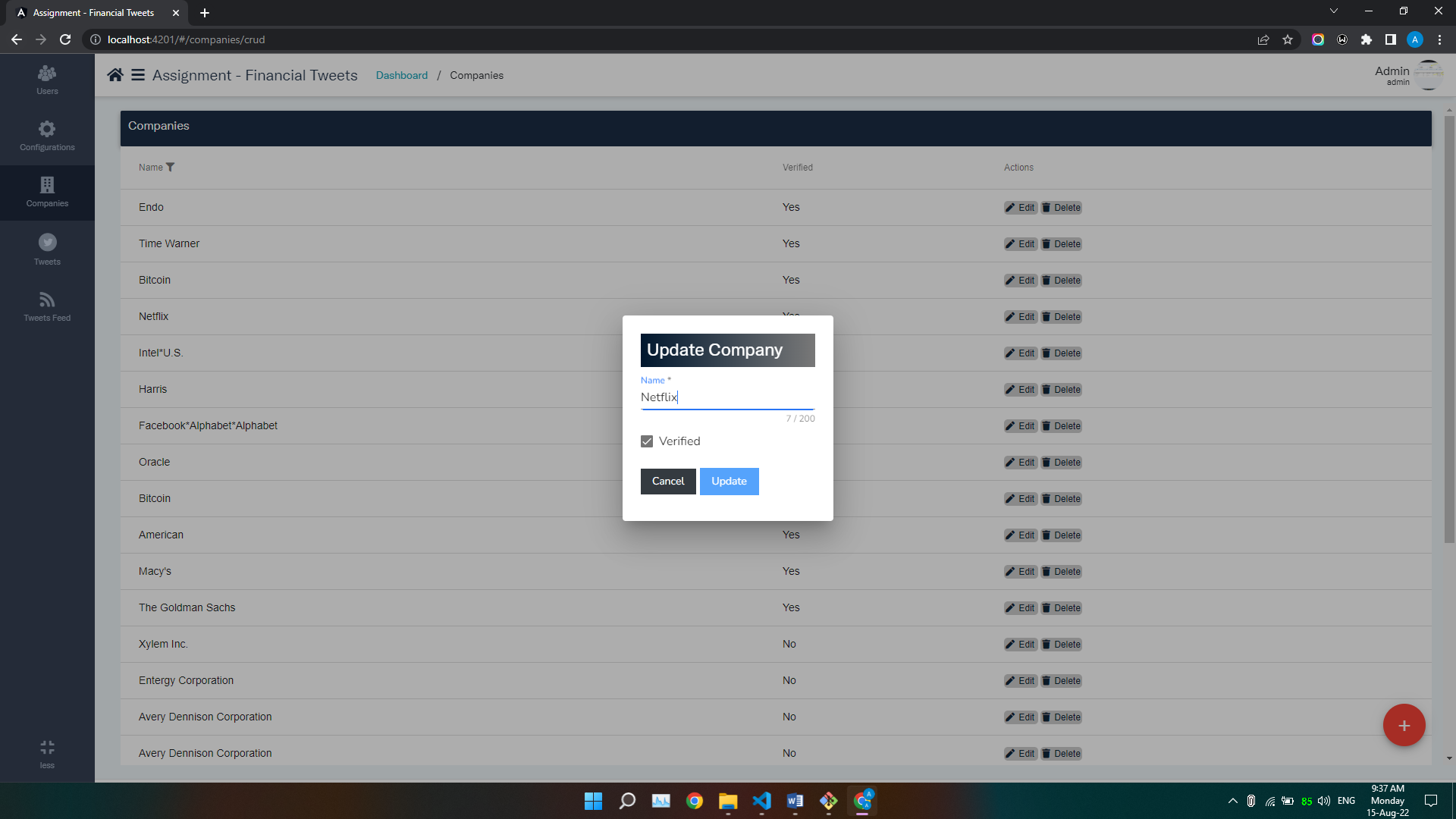


This module also takes care of application version history with release-notes which comes as following



## Companies module

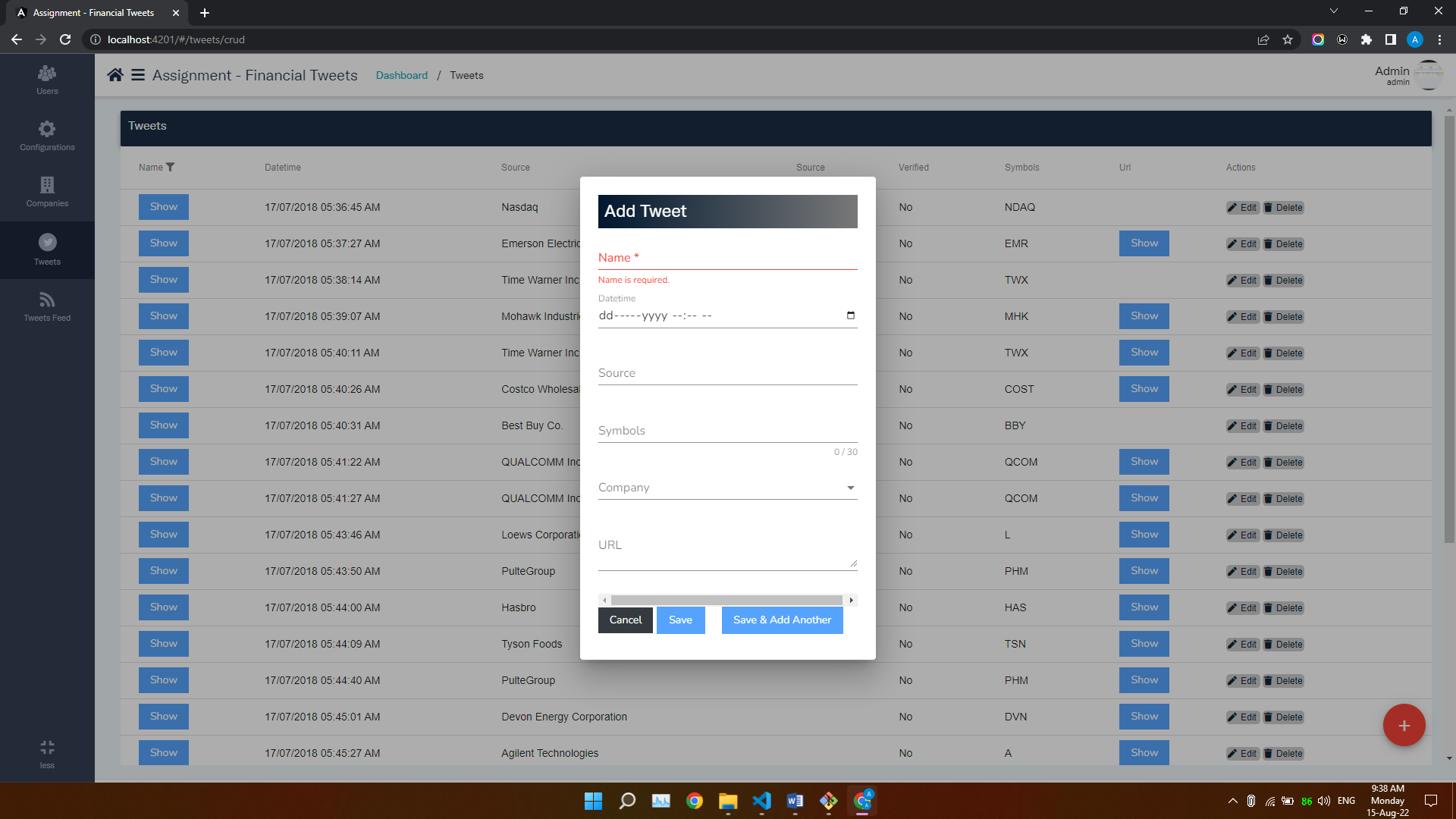
The crud operations for company’s information



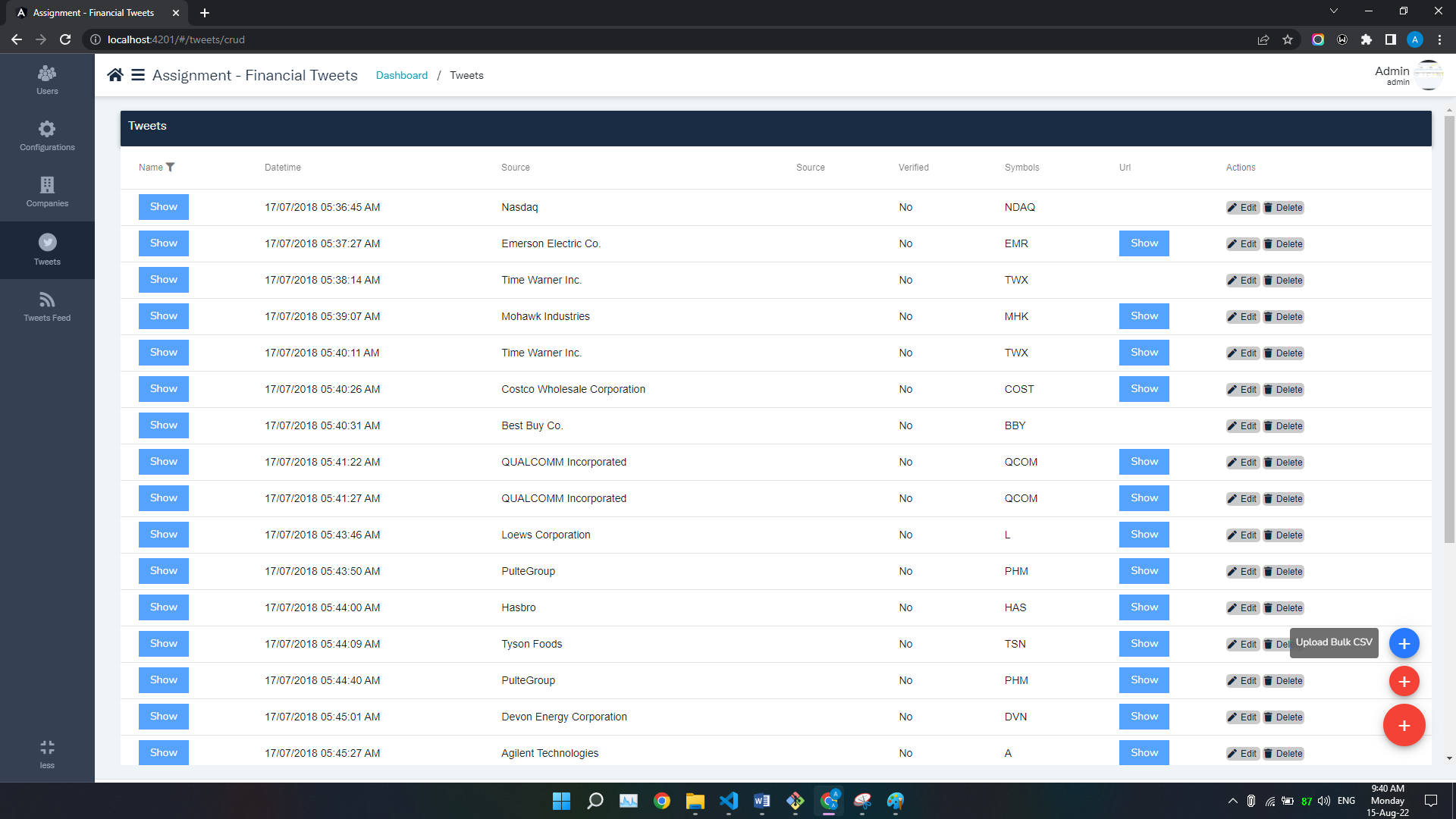
## Tweets module

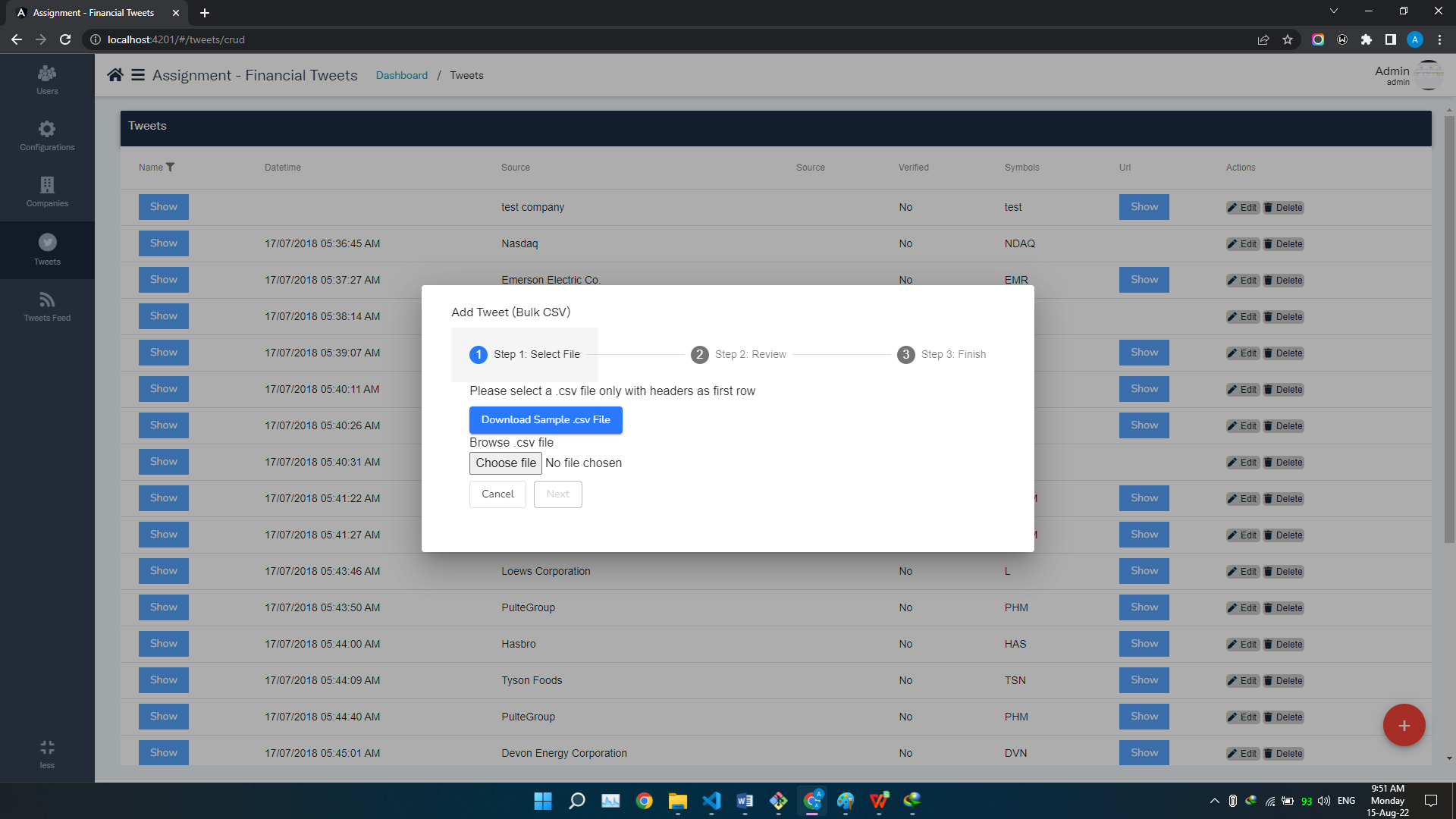
The basic crud operations for tweets data

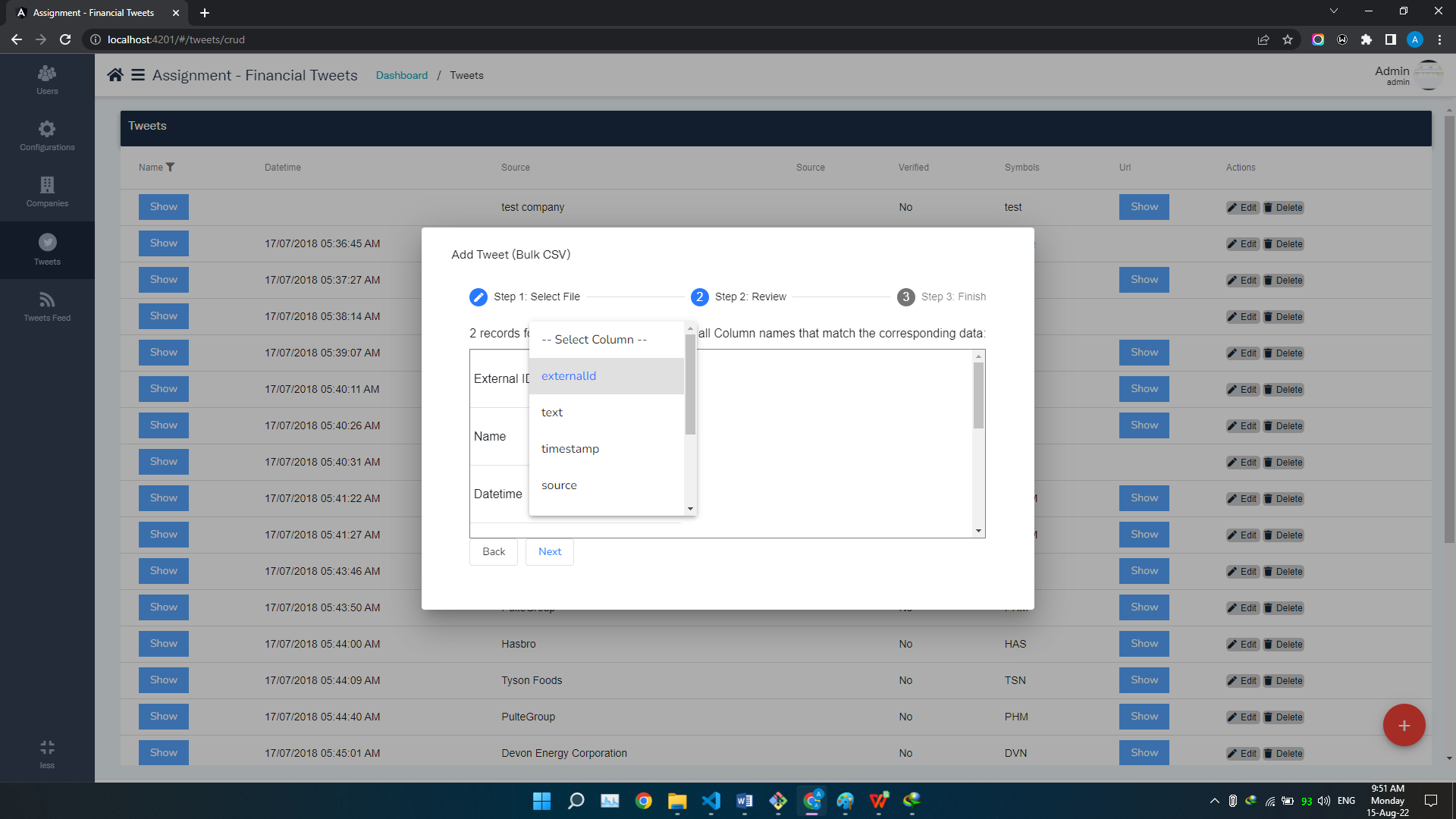
### Input data manually through basic add/update form

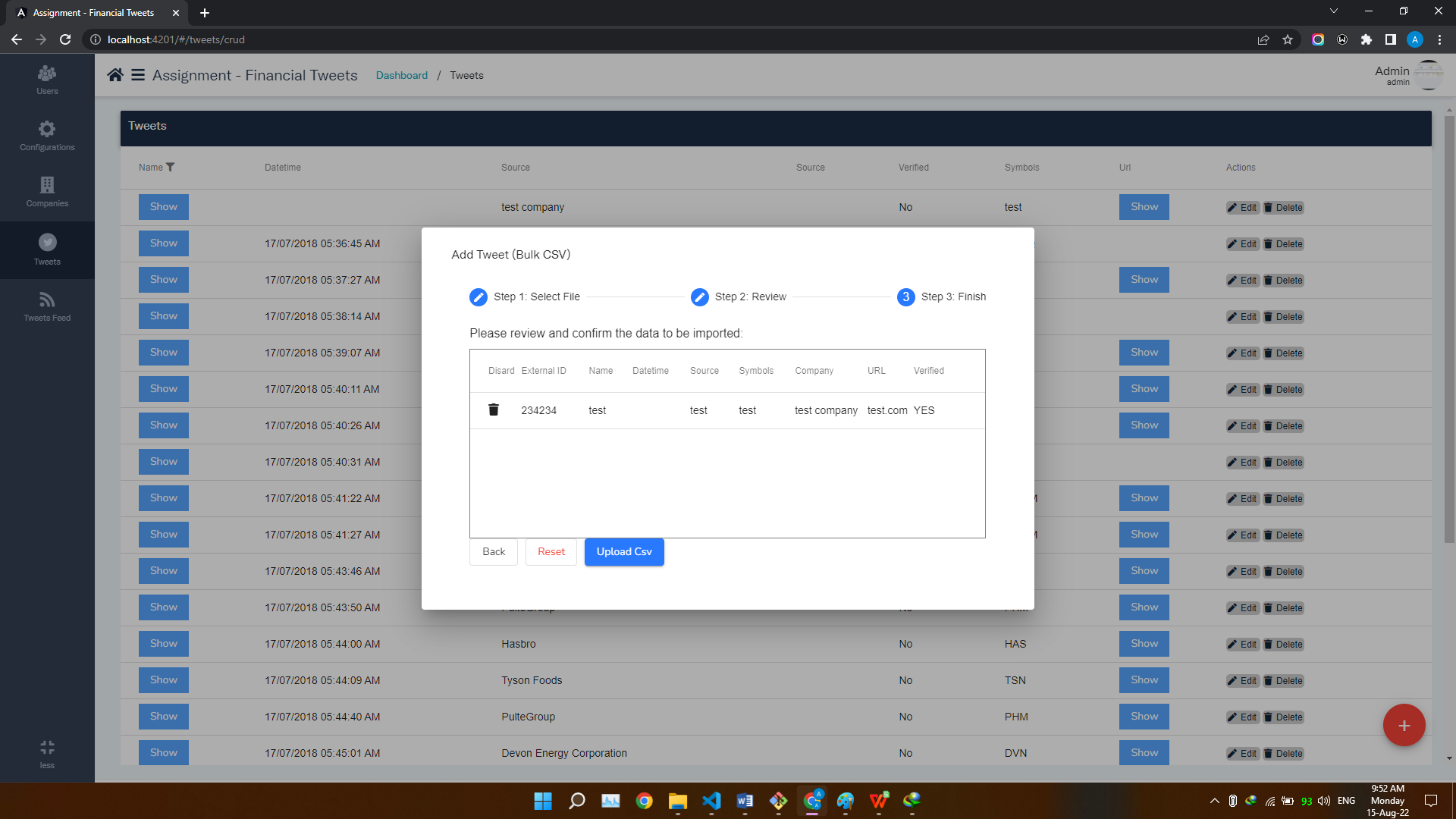


### Bulk import of tweets data through `import csv stepper module`



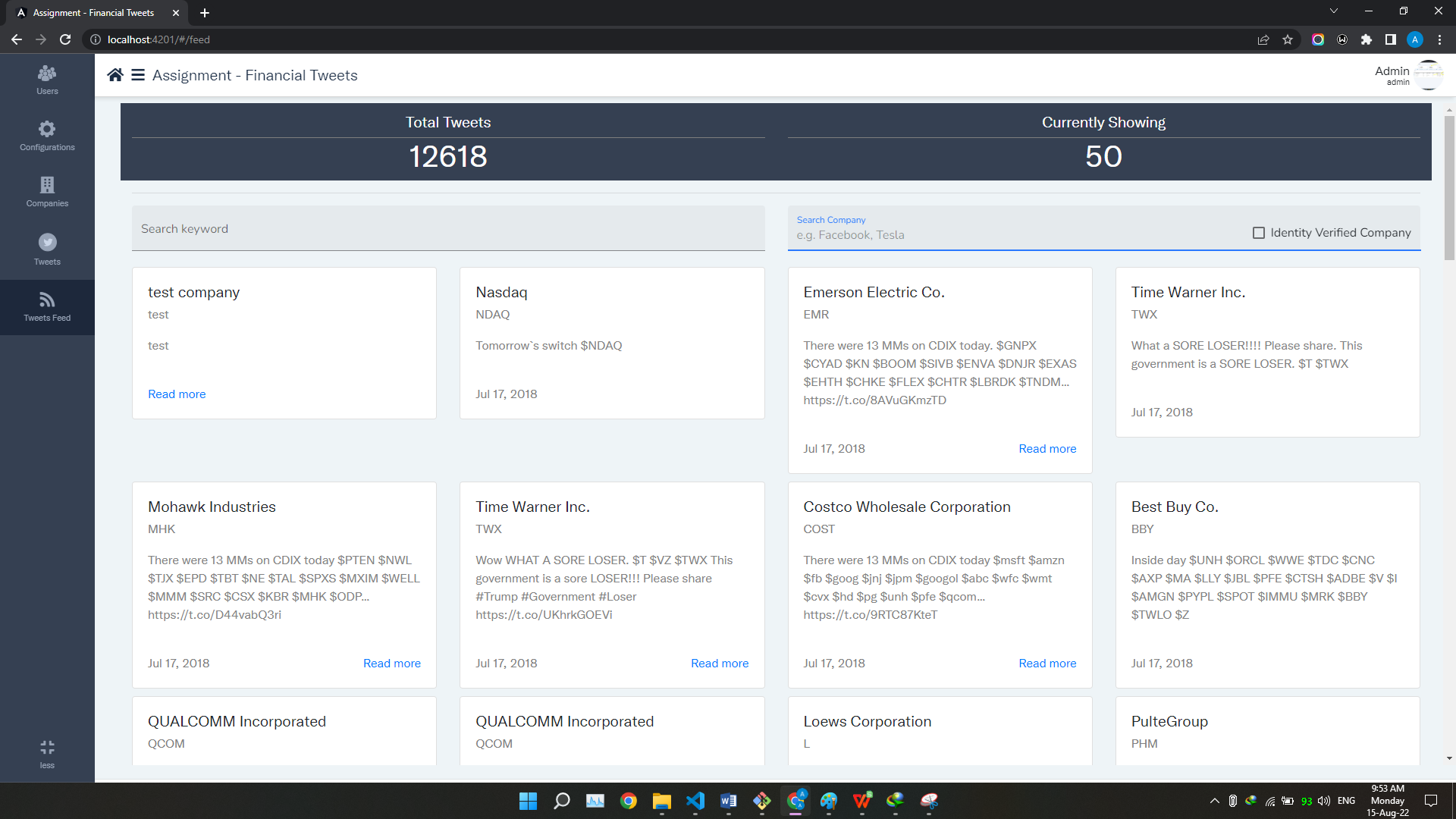






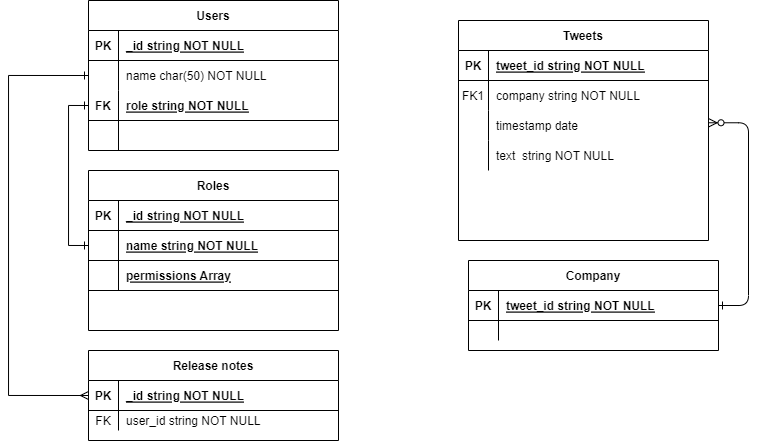
## Feed module / searching

This module shows the tweets in the grid of the cards layout, one card for each tweet data. It also contains search tools e.g. search by keyword, search by company and whether its identity is verified or not. It also has external link to that original link of the post for reading more.



## Key design decisions

I am storing the data in mongodb with documents approach, there are three major data stores that are users, companies and tweets. The other data stores release-notes & systems are being used for storing release notes and system related settings e.g. ACL respectively.



## Security & scalability

The application is using stateless security management which is handled through JWT Authentication tokens. (JSON Web Token). The token information is further encrypted with crypto.js and stored in browser localStorage. Each API HTTP request made to the Node.js / Express.js backend is intercepted by an angular interceptor and it attaches the token with it after retrieving it from localStorage and decrypting it.

Application is highly scalable in terms of parallel instances. As the application is recommended to get deployed on the server with the PM2 (process manager) which is also specified in the README.md file. It takes cares of number of node instances dynamically either we need to upgrade or downgrade.

## Conclusion and reflection

It is a full stack (MEAN Stack) project, frontend side is angular with material design and bootstrap (for layout) mixup, backend side is Node.js / Express.js / MongoDB. It is storing the financial tweets in the NoSql datastore and gives statistics about the keywords used in the tweets.