Annotation 10

Title: Front End Continuous Integration Workflow

Description: This artifact is a collection of screenshots of Github workflow yaml files. It represents an exercise to improve the continuous integration process by automating and integrating with Github. The setup and integration of the Github workflow was written by me and reviewed by the remaining members of the ElectronChat team (James Marshall, Philip Marshall, and Timothy Trusove). We integrated Github workflows to complete the continuous integration step of our development life cycle. As a result of integrating workflows we can reliably maintain our products accessibility for other users, by insuring it will run and pass the testing criteria we have set for the product. This exercise is an example of our ability to use continuous integration tools such as Github workflows to assure a better experience for others.

Reflection: As a result of this exercise I gained insight into developer tools that facilitate automation and accessibility for other users, and integrating them into version control platforms such as Github. I believe that all modern software development projects should contain checks and balances to test new releases and updates. It is especially important to automate it by using tools such as Github workflows to reduce human error. In this particular case I learned the process for setting up multiple workflows to decouple the jobs required for the front end and the back end. In the event that the one of the jobs fails and the other passes I can clearly identify what job requires maintenance.

Artifact 10

```yaml
1    name: Angular GitHub CI
2
3    on:
4      push:
5        branches: [ "main", "Dev" ]
6
7    defaults:
8      run:
9        working-directory: 'front-end-main'
10
11   jobs:
12     build:
13       runs-on: ubuntu-latest
14
15       strategy:
16         matrix:
17           node-version: [14.x, 16.x, 18.x]
18           # See supported Node.js release schedule at https://nodejs.org/en/about/releases/
19
20       steps:
21       - uses: actions/checkout@v3
22       - name: Use Node.js ${{ matrix.node-version }}
23         uses: actions/setup-node@v3
24         with:
25           node-version: ${{ matrix.node-version }}
26       - name: Install Node
27         run: npm install
28       - name: Run Build
29         run: npm run build --if-present
30       - name: Run Tests
31         run: npm test
```

```yaml
4    name: Node.js CI
5
6    on:
7      push:
8        branches: [ "main", "Dev" ]
9
10   defaults:
11     run:
12       working-directory: ./back-end-main
13
14   jobs:
15     build:
16
17       runs-on: ubuntu-latest
18
19       strategy:
20         matrix:
21           node-version: [14.x, 16.x, 18.x]
22           # See supported Node.js release schedule at https://nodejs.org/en/about/releases/
23
24       steps:
25       - uses: actions/checkout@v3
26       - name: Use Node.js ${{ matrix.node-version }}
27         uses: actions/setup-node@v3
28         with:
29           working-directory: './back-end-main'
30           node-version: ${{ matrix.node-version }}
31       - run: npm install
32       - run: npm ci
33       - run: npm run build --if-present
34       - name: Mocha tests
35         run: npm test
```