Response to questions

1. How would you integrate the tests you have written into a continuous integration environment?

Based on my experience with CircleCI, I would first add the configuration file inside the test repository to setup the environment which the Cypress tests will execute in. This configuration file allows me to define the jobs/steps prior to running the tests. An example of a step would be to run "npm install" to install all required packages and run a data seed script to ensure the tests pass reliably. After creating the config file, I would log into CircleCI and point it to the test repository which includes the config file for it to execute. Finally, I would set the time for the tests to run i.e during the morning, night or both.

It would be a similar process for TeamCity apart from the fact that I would define the steps through the TeamCity dashboard and not a config file. Again, such steps would include installing the packages, running data clean-up scripts and then finally running the tests using an npm command, in this case it would be "npm run e2e:tests"

2. How would you approach running the same tests across mobile devices and different browsers?

First, I would try and get data to understand the most used devices and browsers used by the users and create a list from it. Using that list, I would research on tools to enable mobile and browser testing and ensure such tools are able to test the top devices and browsers. I believe Cypress allows the ability to run in different browsers but not for mobile platforms. Essentially, my approach would be to understand the problem better with data and then go ahead and research solutions.

3. If you had more time available, are there any improvements that you would make to the code provided?

My main improvement would be to add better assertions on the sign-up tests. To elaborate, to verify that a valid email was required for the signup, I only wrote code to click the signup button and check that the url is not the Registration page url. Instead, I should've actually found a way to get it to check if any validation messages are present.

Also, I would've used a different tool for the api test instead of Cypress as I experienced the issue of receiving status code 429 instead of 400. Status code 429 meant that the test was executing that endpoint too many times and if I had enough time, I would've investigated why that was the case as cy.request() did work reliably in my last company and hence I used it for this test.