CSE 331
Software Design & Implementation

Spring 2024

Section 9 – More Debugging

Administrivia

- HW9 released later today, due Wednesday (5/29) at **11pm**
- NOTE: The autograder for this Homework will not check your code for correctness! It is up to you to ensure that your code works correctly using the heuristics we have learned throughout this quarter

Client-Server Communication Debugging Steps

1. **Do you see the request in the Network tab?**
   - the client didn't make the request

2. **Does the request show a 404 status code?**
   - the URL is wrong (doesn't match any `app.get` / `app.post`)
     or
     the query parameters were not encoded properly

3. **Does the request show a 400 status code?**
   - *your* server rejected the request as invalid
   - look at the body of the response for the error message **or** add `console.log`'s in the server to see what happened
   - the request itself is shown in the Network tab

Client-Server Communication Debugging Steps

4. **Does the request show a 500 status code?**
   - the server crashed!
   - look in the terminal where you started the server for a stack trace

5. **Does the request say "pending" forever?**
   - your server forgot to call `res.send` to deliver a response

6. **Look for an error message in browser Console**
   - if 1-5 don't apply, then the client got back a response
   - client should print an error message if it doesn't like the response
   - client crashing will show a stack trace

sec-debug coding exercise

debugging practice !!

HW9 Tips

- **Design on paper first!**
  - Draw out UI & decide how to organize into components *before* coding anything

- **Don't reinvent the wheel!**
  - The auction example from lecture will be **very** helpful
  - Stick to the patterns we've taught
    - making requests, type checking, error/success responses
    - Feel free to copy helper functions (e.g. `isRecord`, etc)

- If you're running out of time, watch out for tips in spec for things you can skip and only lose a few points
  - (must complete entire app to get *full* points)

HW9 Tips

- **Recommended implementation order:**
  1. Write the client UI with local data
     - No client/server interaction yet
  2. Write the server
     - Official store of data
       - design appropriate data structures
     - Only provide operations needed by the client
       - look at where state is updated in UI only version to determine what is needed
  3. Connect the client to the server
     - Use fetch to update data on server *before* updating in client
       - Client *always* asks server for data to display in UI
       - Client *always* asks server to perform updates to data