

Review Summary

This code base has 4 independent projects as bot-oc, bot-sdc, bot-sfc, bot1.

Since there is no package.json file included in any of these projects, and the ReadMe file does not explain how the environment variables were set up and configured, this review is limited only to the code snippets and syntaxes and can not address the question of whether or not any of the bot-apps are working properly. I did a line by line commentary explaining what each line of code does. To let the bots work I need to rebuild each project and run it.

In most parts of the code base, standard practices have been maintained and implemented although there is one particular instance where there is a big concern about security vulnerability issues as it involves a private API injected directly into the code. You can find that in bot-sft under bot.js file on line 74

`await page._client.send("Page.setDownloadBehavior", { ...`

`page._client` is used internally by puppeteer classes. Need to avoid using `"page._client"` as it is a private API. instead of `"_client"`, use `"page.target()"` shown here

```
67 const retrieveJudgesData = () =>
68   new Promise(async (resolve, reject) => {
69     let page;
70     try {
71       // Goto Judges Page
72       page = await puppeteerHelper.launchPage(browser, false); // create the new instance of page
73       const pdfPath = path.join( dirName, '/temp/judges'); // get folder path for ./temp/judges
74       await page._client.send("Page.setDownloadBehavior", {
75         // page._client is used internally by puppeteer classes. avoid using page._client as it is a private API. I think instead of _client, use page.target()
76         behavior: "allow",
77         downloadPath: pdfPath,
78       });
79       await page.goto(judgesURL, { timeout: 0, waitUntil: "load" }); // call the judgeURL - https://www.sfsuperiorcourt.org/general-info/judicial-assignments website
```

Also in the run.js line 5, we can see - `const db = require("../config/keys").mongoURI;`

That is the db connection string. This string should be provided in the config file. but it does not exist.

```
const dbController = require("../module_db/db");
const { scraperName } = require("../utils/config"); //
const db = require("../config/keys").mongoURI; // mongodb connection string - no exist

async function run() {
  try {
    await mongoose.connect(db, {
      useNewUrlParser: true,
      useUnifiedTopology: true,
      useFindAndModify: false,
      useCreateIndex: true,
    }); // connect the db
    console.log("MongoDB Connected...");

    const data = await bot.run(); // run the bot to fetch the rulingsData data
```

Over all the 2 bots(bot1 and bot-oc) I couldn't tell if there are any obvious issues without running the project and debugging it, other than the one I mentioned above in the ran.js. On the other hand, bot-sft and bot-sdf needs some debugging, and rewriting.

