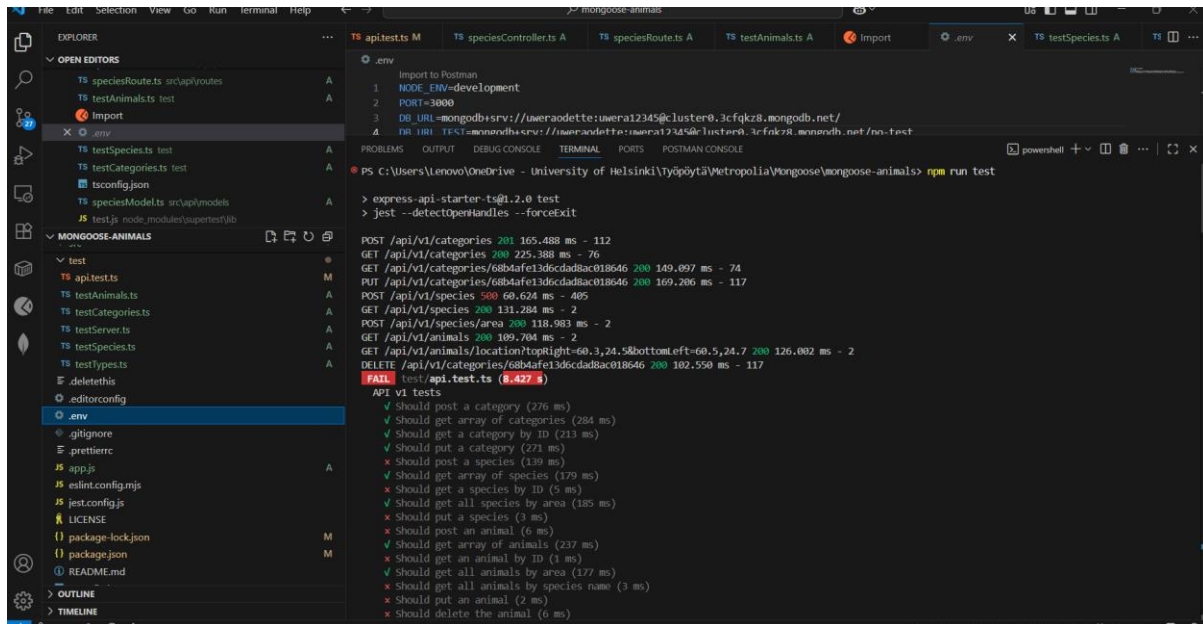


Test results after running npm run test command:



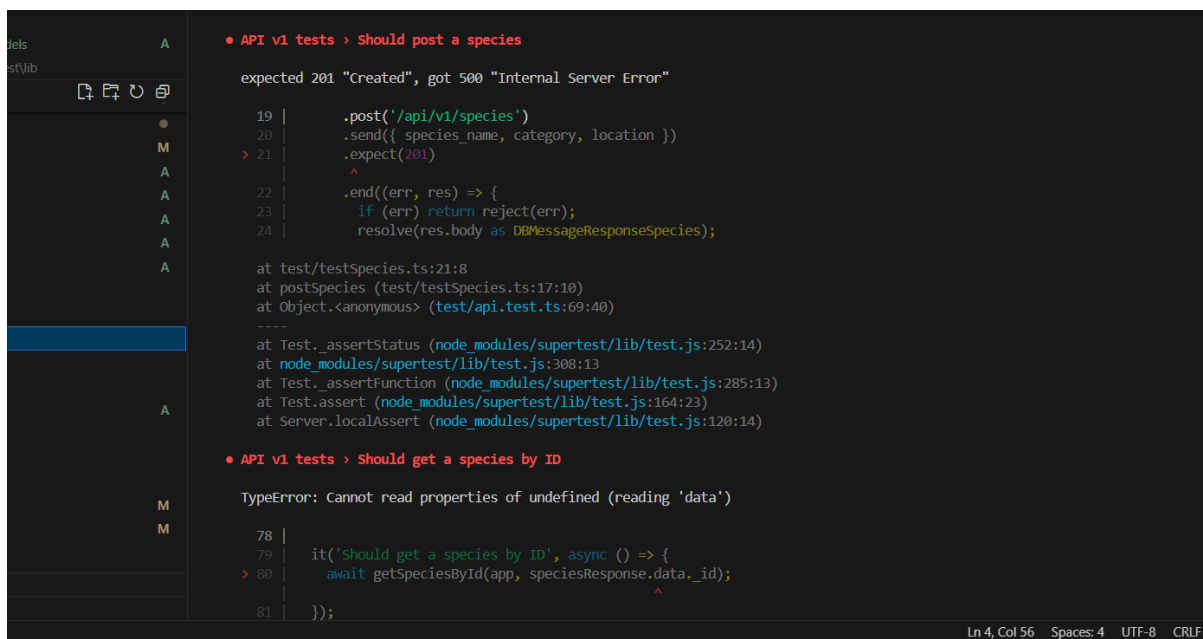
The screenshot shows the VS Code interface with the Explorer on the left, the .env file open in the center, and the terminal at the bottom displaying the output of the `npm run test` command. The terminal output shows a list of tests, with a failure in `test/api.test.ts` at line 8,427. The failure message is "API v1 tests > Should post a species".

```
PS C:\Users\Lenovo\OneDrive - University of Helsinki\Työ\pöytä\Metropolia\Mongoose\mongoose-animals> npm run test

> express-api-starter-ts@1.2.0 test
> jest --detectOpenHandles --forceExit

POST /api/v1/categories 201 165.488 ms - 112
GET /api/v1/categories 200 225.388 ms - 76
GET /api/v1/categories/68b4af13d6cdad8ac018646 200 149.897 ms - 74
PUT /api/v1/categories/68b4af13d6cdad8ac018646 200 169.206 ms - 117
POST /api/v1/species 500 60.624 ms - 405
GET /api/v1/species 200 131.284 ms - 2
POST /api/v1/species/area 200 118.983 ms - 2
GET /api/v1/animals 200 109.704 ms - 2
GET /api/v1/animals/location?toplight=60,3,24.5&bottomleft=60,5,24.7 200 126.002 ms - 2
DELETE /api/v1/categories/68b4af13d6cdad8ac018646 200 102.550 ms - 117
FAIL test/api.test.ts (8.427 s)

API v1 tests
  ✓ Should post a category (276 ms)
  ✓ Should get array of categories (284 ms)
  ✓ Should get a category by ID (213 ms)
  ✓ Should put a category (271 ms)
  ✗ Should post a species (139 ms)
  ✓ Should get array of species (179 ms)
  ✗ Should get a species by ID (5 ms)
  ✓ Should get all species by area (185 ms)
  ✗ Should put a species (3 ms)
  ✗ Should post an animal (6 ms)
  ✓ Should get array of animals (237 ms)
  ✓ Should get an animal by ID (4 ms)
  ✓ Should get all animals by area (177 ms)
  ✗ Should get all animals by species name (3 ms)
  ✗ Should put an animal (2 ms)
  ✗ Should delete the animal (6 ms)
```



The screenshot shows the error details for the failed test in the VS Code editor. The error message is "API v1 tests > Should post a species" and the expected result is "201 'Created'", but the actual result is "500 'Internal Server Error'". The error stack trace shows the test function `postSpecies` in `test/testSpecies.ts` at line 17:10, and the assertion function `Test.assertStatus` in `node_modules/supertest/lib/test.js` at line 252:14. The error message is "TypeError: Cannot read properties of undefined (reading 'data')".

```
API v1 tests > Should post a species
expected 201 "Created", got 500 "Internal Server Error"

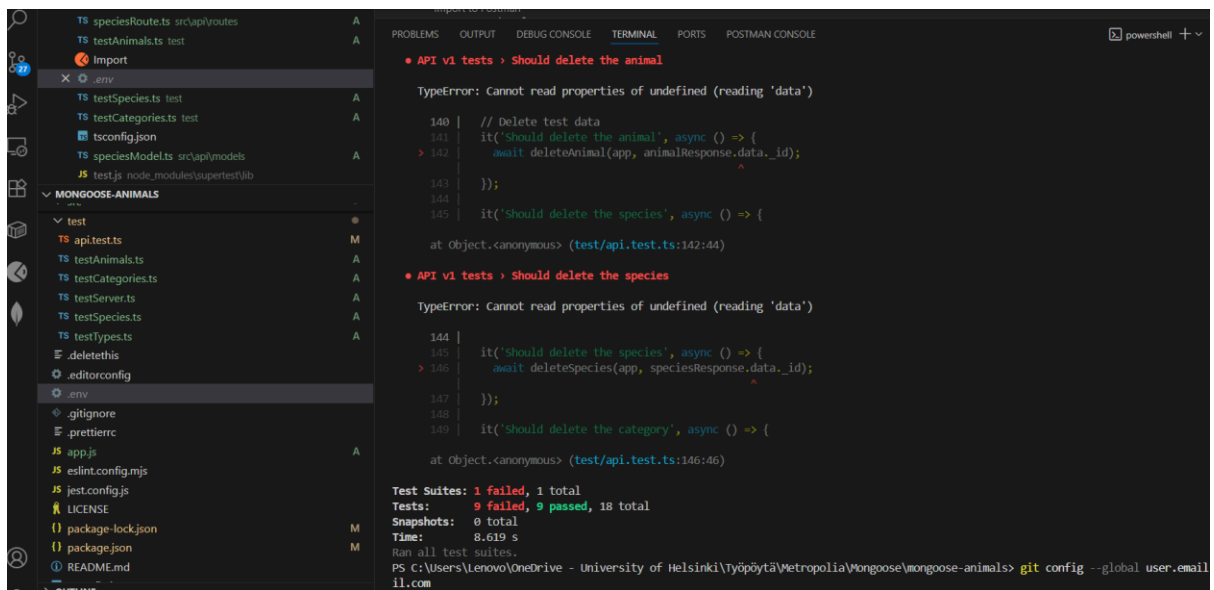
19 |     .post('/api/v1/species')
20 |     .send({ species_name, category, location })
> 21 |     .expect(201)
   |     ^
22 |
23 |     .end((err, res) => {
24 |       if (err) return reject(err);
      resolve(res.body as DBMessageResponseSpecies);
    });

at test/testSpecies.ts:21:8
at postSpecies (test/testSpecies.ts:17:10)
at Object.<anonymous> (test/api.test.ts:69:40)
----
at Test.assertStatus (node_modules/supertest/lib/test.js:252:14)
at node_modules/supertest/lib/test.js:308:13
at Test.assertFunction (node_modules/supertest/lib/test.js:285:13)
at Test.assert (node_modules/supertest/lib/test.js:164:23)
at Server.localAssert (node_modules/supertest/lib/test.js:120:14)

API v1 tests > Should get a species by ID

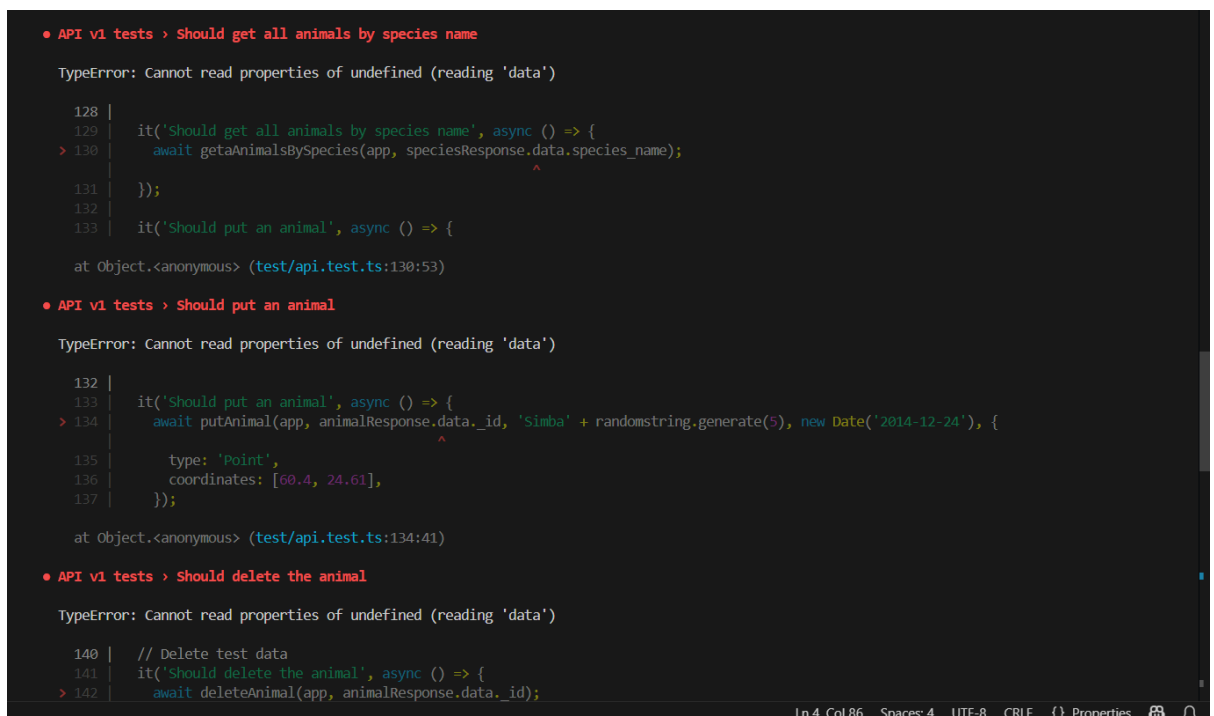
TypeError: Cannot read properties of undefined (reading 'data')

78 |
79 |   it('should get a species by ID', async () => {
> 80 |     await getSpeciesById(app, speciesResponse.data_id);
   |                                     ^
81 |   });
```



The image shows a VS Code editor with a file explorer on the left and a terminal window on the right. The file explorer shows a project structure for 'mongoose-animals' with files like 'speciesRoutes.ts', 'testSpecies.ts', 'testCategories.ts', 'tsconfig.json', 'speciesModels.ts', 'test.ts', 'api.test.ts', 'testAnimals.ts', 'testCategories.ts', 'testServer.ts', 'testSpecies.ts', 'testTypes.ts', '.deletethis', '.editorconfig', '.env', '.gitignore', '.prettierrc', 'app.js', 'eslint.config.mjs', 'jest.config.js', 'LICENSE', 'package-lock.json', 'package.json', and 'README.md'. The terminal window shows the output of running tests, including error messages for 'Should delete the animal' and 'Should delete the species', and a summary of test results: 1 failed, 9 passed, 18 total tests.

```
Import to E2E runner...
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE
• API v1 tests > Should delete the animal
TypeError: Cannot read properties of undefined (reading 'data')
140 | // Delete test data
141 | it('Should delete the animal', async () => {
> 142 |   await deleteAnimal(app, animalResponse.data._id);
      |                                     ^
143 | });
144 |
145 | it('Should delete the species', async () => {
    at Object.<anonymous> (test/api.test.ts:142:44)
• API v1 tests > Should delete the species
TypeError: Cannot read properties of undefined (reading 'data')
144 |
145 | it('Should delete the species', async () => {
> 146 |   await deleteSpecies(app, speciesResponse.data._id);
      |                                     ^
147 | });
148 |
149 | it('Should delete the category', async () => {
    at Object.<anonymous> (test/api.test.ts:146:46)
Test Suites: 1 failed, 1 total
Tests: 9 failed, 9 passed, 18 total
Snapshots: 0 total
Time: 8.619 s
Ran all test suites.
PS C:\Users\Lenovo\OneDrive - University of Helsinki\Työ\pöytä\Metropolia\Mongoose\mongoose-animals> git config --global user.email il.com
```



The image shows a VS Code editor with a terminal window displaying the output of running tests. The terminal shows error messages for 'Should get all animals by species name', 'Should put an animal', and 'Should delete the animal', and a summary of test results: 1 failed, 9 passed, 18 total tests.

```
• API v1 tests > Should get all animals by species name
TypeError: Cannot read properties of undefined (reading 'data')
128 |
129 | it('Should get all animals by species name', async () => {
> 130 |   await getAnimalsBySpecies(app, speciesResponse.data.species_name);
      |                                     ^
131 | });
132 |
133 | it('Should put an animal', async () => {
    at Object.<anonymous> (test/api.test.ts:130:53)
• API v1 tests > Should put an animal
TypeError: Cannot read properties of undefined (reading 'data')
132 |
133 | it('Should put an animal', async () => {
> 134 |   await putAnimal(app, animalResponse.data._id, 'Simba' + randomstring.generate(5), new Date('2014-12-24'), {
      |                                     ^
135 |     type: 'Point',
136 |     coordinates: [60.4, 24.61],
137 |   });
    at Object.<anonymous> (test/api.test.ts:134:41)
• API v1 tests > Should delete the animal
TypeError: Cannot read properties of undefined (reading 'data')
140 | // Delete test data
141 | it('Should delete the animal', async () => {
> 142 |   await deleteAnimal(app, animalResponse.data._id);
      |                                     ^
143 | });
144 |
145 | it('Should delete the species', async () => {
    at Object.<anonymous> (test/api.test.ts:142:44)
Test Suites: 1 failed, 1 total
Tests: 9 failed, 9 passed, 18 total
Snapshots: 0 total
Time: 8.619 s
Ran all test suites.
PS C:\Users\Lenovo\OneDrive - University of Helsinki\Työ\pöytä\Metropolia\Mongoose\mongoose-animals> git config --global user.email il.com
```

at Object.<anonymous> (test/api.test.ts:80:47)

• API v1 tests > Should put a species

TypeError: Cannot read properties of undefined (reading 'data')

```
99 |   it('Should put a species', async () => {
100 |     const newSpeciesName = 'Leijona' + randomstring.generate(5);
> 101 |     await putSpecies(app, speciesResponse.data._id, newSpeciesName, {
      |                                           ^
102 |       type: 'Point',
103 |       coordinates: [60.39, 24.7],
104 |     });
```

at Object.<anonymous> (test/api.test.ts:101:43)

• API v1 tests > Should post an animal

TypeError: Cannot read properties of undefined (reading 'data')

```
109 |
110 |   it('Should post an animal', async () => {
> 111 |     animalResponse = await postAnimal(app, 'Simba' + randomstring.generate(5), speciesResponse.data._id, new Date('2015-12-24'), {
      |                                           ^
112 |       type: 'Point',
113 |       coordinates: [60.4, 24.61],
114 |     });
```

at Object.<anonymous> (test/api.test.ts:111:96)

• API v1 tests > Should get an animal by ID

TypeError: Cannot read properties of undefined (reading 'data')

```
120 |
121 |   it('Should get an animal by ID', async () => {
```