SECURITY BUG:

1. Script Injection and reflection:

I was able to inject HTML tag in first and last name and was retrieve that after save. For e.g., I was able to add first name or last name in different colors and bold etc. I have added the screenshot under steps to reproduce section (bug#1).

UI BUGS:

1. Validation Errors:
   * Adding an employee without first name and/or last name does not show error in the UI.
   * It allows numbers to be entered in the first name and last name field. There should be validation for this.
   * It allows special characters like ( ) # % There should be validation error for this.
   * Adding first name or last name with more than 50 characters does not show error in the UI.
   * Adding a negative number in the dependents field does not show any error in the UI.
   * Adding alphabets in the dependents field does not show any error in the UI.
   * Adding number greater than 32 in dependents field does not show any error in the UI.

In all the above cases, the error shows only in the browser console under developer tools.

1. User Experience Errors:
   1. When there are 2 employees with exact same first and last name, there is no easy way to find who is who except for auto generated guid. The table needs a readable unique identifier like Employee ID.
   2. When the first name and last name is long, the icons go outside of the table’s border. You can check that in one of the screenshots below in steps to reproduce section.
   3. Unable to sort the grid.

When a new employee is added, it just gets added anywhere in the table. When there are lot of employees it will be so tough to find where it got added. Sort functionality is needed on the table.

* 1. Unable to resize the columns in the grid.

It would be more user friendly if the columns can be resized so that based on each user’s need, they can increase or decrease the size of the column they want.

* 1. Unable to filter the table.

When there are lot of employees, it will be very difficult to search and get to a specific employee. Filter functionality is needed on the table so that it will be easier and faster.

* 1. The application is not supported in mobile resolution. ( No responsive layout)

When tried in mobile resolution, more than half of the page is not seen which is not a good user experience.

* 1. Favicon.ico is failing to load.

There is a 403 error in the console for favicon.ico failing to load.

API BUGS:

1. Get Employee List
   1. There is “Expiration” field in the response which is not seen in any other requests. There is no need to send this field in the response or it needs to be more descriptive. The significance of this field is not clear. There is no related field in the UI either.
   2. Salary and Gross shows only 1 decimal value in the response for all the calls.
2. Add Employee
   1. User added from postman does not show in the UI. Reason is that the username is incorrect in the response. Instead of Testuser17 (which is assigned to me), the Add employee response shows as TestUser8 (Details and screenshot is in steps to reproduce section Bug#2 )
3. Get Employee
   1. Passing incorrect id (non-existing id) does not show any error. Returns a 200. It should return 404
   2. “Expiration” field issue is same as #1
4. Update Employee
   1. Able to update salary (Details and screenshot is in steps to reproduce section Bug # 3)
   2. Passing incorrect id (non-existing id) does not show any error. Instead, returns a 200 and shows the Salary and gross as 0 in the response. It should return 404.
5. Delete Employee
   1. Passing incorrect id (non-existing id) does not show any error. Returns a 200. It should return 404

**Steps to reproduce:**

Bug # 1: Script Injection and Reflection.

From the dashboard page, Click on Add employee button. In the first and last name, enter any html tag or script tag. For e.g., in the screen shot below I have changed the font color of the first name and made last name bold. I was able to save the value and retrieve it even after page refresh. Below is the screen shot after page refresh.

Graphical user interface, application, Teams

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

Bug # 2: Add Employee API call does not add the employee in the UI.

Send a json request as shown below. In the response, username shows as “Testuser8” as highlighted. And hence when I refresh the UI dashboard page, the added employee does not show up as I am logged in as Testuser17.

Graphical user interface, text, application, email

Description automatically generated

Text

Description automatically generated with medium confidence

Bug # 3: Update Employee API call allows updating salary for an employee.

In the postman json request, include the salary and change the value for them. For e.g, I updated the salary to 100000.0. I have added the screenshot of my json. It got saved without any error. And it showed up in the UI as well. Below is the screenshot of the UI.

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, website

Description automatically generated

Bug # 4: Validation UI bugs.

Click Add employee.

Enter only first name and click Add.

As a user, you don’t see any UI error which is frustrating. Click on F12 and you will see console error 400 in the network tab as shown below.

Graphical user interface, text, application

Description automatically generated

Same is the steps for all the validation UI bugs.