

ELMAZ SAFINA

STE Assessment - Bug Challenge

Statement

1st bug with some details that I would attach to a defect, next ones simplified.

UI

Bug #UI-1: Employee first and last names do not match table headers

Steps to reproduce:

1. Go to {X} web-page {link}
2. Click “Add Employee” button

Id	Last Name	First Name	Dependents	Salary	Gross Pay	Benefits Cost	Net Pay	Actions
a38a13b4-37e5-4b13-a228-48273410070b	Steve	Rogers	1	52000.00	2000.00	57.69	1942.31	

Add Employee

3. Input data as on the screenshot

Add Employee ×

First Name:

ThisIsFirstName

Last Name:

ThisIsLastName

Dependants:

0

Add

Cancel

Actual Result:

Id	Last Name	First Name	Dependents	Salary	Gross Pay	Benefits Cost	Net Pay	Actions
a38a13b4-37e5-4b13-a228-48273410070b	Steve	Rogers	1	52000.00	2000.00	57.69	1942.31	
d63cc926-8fd6-44dd-a7ff-30fbffa20c0c	ThisIsFirstName	ThisIsLastName	0	52000.00	2000.00	38.46	1961.54	

Expected result:

- “ThisIsFirstName” matching First Name column
- “ThisIsLastName” matching Last Name column

In API values are matching keys, hence the issue is in UI, not in API:

```
1 {
2   "partitionKey": "TestUser192",
3   "sortKey": "d63cc926-8fd6-44dd-a7ff-30fbffa20c0c",
4   "username": "TestUser192",
5   "id": "d63cc926-8fd6-44dd-a7ff-30fbffa20c0c",
6   "firstName": "ThisIsFirstName",
7   "lastName": "ThisIsLastName",
8   "dependants": 0,
9   "expiration": "2022-05-23T21:18:11+00:00",
10  "salary": 52000.0,
11  "gross": 2000.0,
12  "benefitsCost": 38.46154,
13  "net": 1961.53845
14 }
```

Potential

solution: swap column names

Environment: xyz

Tenant: if applicable

Admin user: if applicable

Recording: link

Screenshot: attached

Bug #UI-2: Missing user-friendly error messages in UI

See Bug #API-1: Create employee with ANY first or last name

Steps to reproduce:

1. Go to {X} web-page {link}
2. Click "Add Employee" button
3. Input data as on the screenshot

Actual:

Add Employee

×

First Name:

hello world !@#\$\$%^&*()-=

Last Name:

👤

Dependants:

1

Add

Cancel

Id	Last Name	First Name	Dependants	Salary	Gross Pay	Benefits Cost	Net Pay	Actions
0962a47e-8c68-4dc4-a6a2-d916e68e6dd6	👤	👤	0	52000.00	2000.00	38.46	1961.54	🔍 ✕
0e26821b-2bf2-4a62-8d50-9f076c1116be	hello world !@#\$\$%^&*()-=	👤	1	52000.00	2000.00	57.69	1942.31	🔍 ✕
26cf2d8a-702b-4842-9b2b-cdd4a4851bdc	hello world !@#\$\$%^&*()-=	20934302948324	32	52000.00	2000.00	653.85	1346.15	🔍 ✕
b562b2da-0481-47db-823d-9e6a0fc18c18	1	1	1	52000.00	2000.00	57.69	1942.31	🔍 ✕

Expected: User friendly error message that clarifies what was wrong and how to fix the issue.

API

Bug #API-1: Create employee with ANY first or last name

No validation around first and last name string values, except length.

API accepts any non-blank string name, any unicode chars, including special symbols and emojis.

Also, please make sure to trim input.

Actual:

The screenshot shows an API client interface. At the top, a POST request is configured to `https://{baseUrl}/{apiVersion}/employees`. The 'Body' tab is selected, showing a JSON payload with `firstName` (an emoji), `lastName` (a string with special characters), and `dependants` (0). Below the request, the 'Test Results' tab shows a successful response with status 200 OK. The response body is a JSON object containing `partitionKey`, `sortKey`, `username`, `id`, `firstName` (the same emoji), `lastName` (the same string), `dependants` (0), `salary`, `gross`, `benefitsCost`, and `net`.

```
POST https://{baseUrl}/{apiVersion}/employees

{
  "firstName": "👨‍👦",
  "lastName": "hello world !#*~+&^%{ } [ ] / > < .",
  "dependants": 0
}
```

Body Cookies Headers (11) Test Results 200 OK

Pretty Raw Preview Visualize JSON

```
{
  "partitionKey": "TestUser192",
  "sortKey": "aed7522a-4883-4c3a-ab75-55fc3b94d4eb",
  "username": "TestUser192",
  "id": "aed7522a-4883-4c3a-ab75-55fc3b94d4eb",
  "firstName": "👨‍👦",
  "lastName": "hello world !#*~+&^%{ } [ ] / > < .",
  "dependants": 0,
  "salary": 52000.0,
  "gross": 2000.0,
  "benefitsCost": 38.46154,
  "net": 1961.53845
}
```

Expected: Response with validation error message, something like “Should be a string matching pattern [XYZ]”.

Please clarify constraints with Product.

Potential solution: Validation annotation that verifies if values matching regex.

Bug #API-2: POST API endpoint may return 201 instead of 200

Depends on API design and common development standards.

However I would expect POST API endpoints to return 201 CREATED status code.

By the way, DELETE could return 204 NO CONTENT when removing a resource instead of 200 OK. :)

Bug #API-3: Cents should have 2 digits after floating point

Cents should be rounded and formatted to 2 digits after floating point

Actual:

```
1 {
2   "partitionKey": "TestUser192",
3   "sortKey": "5e517684-d956-4c63-8496-13cfe28b453e",
4   "username": "TestUser192",
5   "id": "5e517684-d956-4c63-8496-13cfe28b453e",
6   "firstName": "John",
7   "lastName": "Doe",
8   "dependants": 0,
9   "salary": 52000.0,
10  "gross": 2000.0,
11  "benefitsCost": 38.46154,
12  "net": 1961.53845
13 }
```

Expected:

```
{
  "partitionKey": "TestUser192",
  "sortKey": "5e517684-d956-4c63-8496-13cfe28b453e",
  "username": "TestUser192",
  "id": "5e517684-d956-4c63-8496-13cfe28b453e",
  "firstName": "John",
  "lastName": "Doe",
  "dependants": 0,
  "salary": 52000.00,
  "gross": 2000.00,
  "benefitsCost": 38.46,
  "net": 1961.54
}
```

Bug #API-4: GET, PUT and DELETE invalid employee ID should return 404 NOT FOUND

API should return 404 NOT FOUND response status code and error message stating that resource {id} not found

Actual:

- For non existing id

GET

https://{baseUrl}/{apiVersion}/employees/non-existing-id

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

1

Body


Cookies

Headers (14)

Test Results

500 Internal Server Error

For removed resource

GET  https://{{baseUrl}}/{{apiVersion}}/employees/{{employeeId}}

Params Authorization Headers (8) Body Pre-requests

1

E employeeId


INITIAL	DYNAMIC DATA
CURRENT	fc930b1f-97d3-4c71-b232-4e2feff0325a
SCOPE	Environment



Test Results

Test are Lea

SNII

Body Cookies Headers (10) Test Results

 200 OK




Pretty Raw Preview Visualize Text  

1

- for PUT request

PUT  https://{{baseUrl}}/{{apiVersion}}/employees/

Params Authorization Headers (11) Body  Pre-request Script Tests Settings

 none  form-data  x-www-form-urlencoded  raw  binary  GraphQL JSON 

```
1 {
2   ... "id": "non-existing-id",
3   ... "firstName": "Hello",
4   ... "lastName": "World",
5   ... "dependants": 0
6 }
```

Body Cookies Headers (14) Test Results

 500 Internal Server Error

Bug #API-5: PUT request should send employee ID in Path Params

Actual:

PUT

▼

https://{{baseUrl}}/{{apiVersion}}/employees

ParamsAuthorizationHeaders (11)Body ●Pre-request ScriptTestsSettings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

▼

1

{

2

....

"id": "d6fd34f4-1431-4193-9ff6-188c8cbf6bc5",

3

....

"firstName": "Hello",

4

....

"lastName": "World",

5

....

"dependants": 3

6

}

Expected:

PUT

▼

https://{{baseUrl}}/{{apiVersion}}/employeesd6fd34f4-1431-4193-9ff6-188c8cbf6bc5

ParamsAuthorizationHeaders (11)Body ●Pre-request ScriptTestsSettings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

▼

1

{

2

....

"firstName": "Hello",

3

....

"lastName": "World",

4

....

"dependants": 3

5

}

Bug #API-6: Dependants returns 500 when value over- or under flows

When dependant value is greater than short max value 32,767 (overflow), or less than -32,768 (underflow) then response status code is 500.

POST ▼ https://{{baseUrl}}/{{apiVersion}}/employees

Params Authorization Headers (11) **Body** ● Pre-request Script Tests ● Settings

● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL **JSON** ▼

```
1 {
2   ... "firstName": "John",
3   ... "lastName": "Doe",
4   ... "dependants": 32768
5 }
```

Body Cookies Headers (14) Test Results ● 🌐 500 Internal Server Error 2

Expected for ANY invalid value:

POST ▼ https://{{baseUrl}}/{{apiVersion}}/employees

Params Authorization Headers (11) **Body** ● Pre-request Script Tests ● Settings

● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL **JSON** ▼

```
1 {
2   ... "firstName": "John",
3   ... "lastName": "Doe",
4   ... "dependants": 32767
5 }
```

Body Cookies Headers (11) Test Results 🌐 400 Bad Request

Pretty Raw Preview Visualize **JSON** ▼ ≡

```
1 [
2   {
3     "memberNames": [
4       "Dependants"
5     ],
6     "errorMessage": "The field Dependants must be between 0 and 32."
7   }
8 ]
```

Bug #APP-1: Total benefit cost mismatch

I'm creating a bug, at the same time I would imagine that last month's calculation would correlate that mismatch.

Actual (result of calculation for 0 (zero) dependents):

- In UI: $38.46 \times 26 = 999.96$
- In API: $38.46154 \times 26 = 1000.00004$

Expected: total benefit cost = \$1000