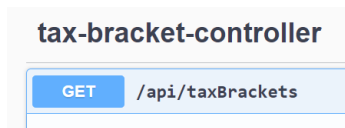


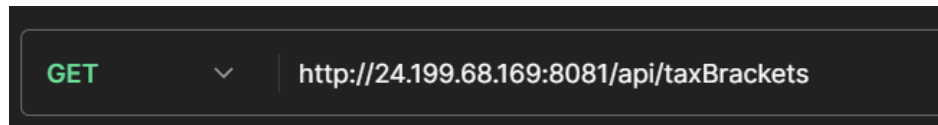
Income Tax Calculation-API-Test analysis and design

Retrieve Tax brackets



1. Verify the API returns all the tax brackets.

- **Action:**



- **Expected outcome:** code 200, Show all tax brackets
- **What to Measure:** taxRate, minIncomeBracket, maxIncomeBracket accordingly

1. Verify successful API code with valid parameters

- **Action:** Load the API URL (http://24.199.68.169:8081/api/taxBrackets)
- **Expected outcome:** Code 200
- **What to Measure:** taxRate, minIncomeBracket, maxIncomeBracket accordingly

2. Verify successful API code with invalid parameters

- **Action:** Load the API URL (http://24.199.68.169:8081/api/taxrackets)
- **Expected outcome:** Code 404,
- **What to Measure:** taxRate, minIncomeBracket, maxIncomeBracket accordingly

Find Tax Bracket

GET /api/taxBrackets/{income}

1. Verify the API returns the correct tax bracket for the given income of **\$0.00**
 - **Action:** on postman Get `http://24.199.68.169:8081/api/taxBrackets/0`
 - **Expected outcome:**
Code 200
Tax Rate: 10.5% and
Tax Bracket: 0 to 14000
 - **What to Measure:** Tax rate, Tax Bracket will find accordingly
2. Verify the API returns the correct tax bracket for the given income of **\$14000.00**
 - **Action:** on postman Get `http://24.199.68.169:8081/api/taxBrackets/14000`
 - **Expected outcome:**
Code 200
Tax Rate: 10.5% and
Tax Bracket: 0 to 14000
 - **What to Measure:** Tax rate, Tax Bracket will find accordingly

3. Verify the API returns the correct tax bracket for the given income of **\$14001.00**
 - **Action:** on postman Get `http://24.199.68.169:8081/api/taxBrackets/14001`
 - **Expected outcome:**
Code 200
Tax Rate: 17.5% and
Tax Bracket: 14001 to 48000
 - **What to Measure:** Tax rate, Tax Bracket will find accordingly
4. Verify the API returns the correct tax bracket for the given income of **\$48000.00**
 - **Action:** on postman Get `http://24.199.68.169:8081/api/taxBrackets/48000`
 - **Expected outcome:**
Code 200
Tax Rate: 17.5% and
Tax Bracket: 14001 to 48000

- **What to Measure:** Tax rate, Tax Bracket will find accordingly

5. Verify the API returns the correct tax bracket for the given income of **\$48001.00**

- **Action:** on postman Get <http://24.199.68.169:8081/api/taxBrackets/48001>
- **Expected outcome:** Code 200
Tax Rate: 30.0% and
Tax Bracket: 48001 to 70000
- **What to Measure:** Tax rate, Tax Bracket will find accordingly

6. Verify the API returns the correct tax bracket for the given income of **\$70000.00**

- **Action:** on postman Get <http://24.199.68.169:8081/api/taxBrackets/70000>
 - **Expected outcome:** Code 200
Tax Rate: 30.0% and
Tax Bracket: 48001 to 70000
 - **What to Measure:** Tax rate, Tax Bracket will find accordingly
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7. Verify the API returns the correct tax bracket for the given income of **\$70001.00**

- **Action:** on postman Get <http://24.199.68.169:8081/api/taxBrackets/70001>
- **Expected outcome:** Code 200
Tax Rate: 33.0% and
Tax Bracket: 70001 to 180000
- **What to Measure:** Tax rate, Tax Bracket will find accordingly

8. Verify the API returns the correct tax bracket for the given income of **\$180000.00**

- **Action:** on postman Get <http://24.199.68.169:8081/api/taxBrackets/180000>
 - **Expected outcome:** Code 200
Tax Rate: 33.0% and
Tax Bracket: 70001 to 180000
 - **What to Measure:** Tax rate, Tax Bracket will find accordingly
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9. Verify the API returns the correct tax bracket for the given income of **\$180001.00**

- **Action:** on postman Get <http://24.199.68.169:8081/api/taxBrackets/180001>
 - **Expected outcome:** Code 200
Tax Rate: 39.0% and
Tax Bracket: greater than 180000
 - **What to Measure:** Tax rate, Tax Bracket will find accordingly
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10. Verify the API returns an error message for a negative number as income **-1**

- **Action:** on postman Get <http://24.199.68.169:8081/api/taxBrackets/-1>
- **Expected outcome:** Code 200
Tax Rate: 39.0% and
Tax Bracket: greater than 180000
- **What to Measure:** Tax rate, Tax Bracket will find accordingly

Calculate Tax bracket

tax-calculator-controller

POST /api/calculateTax

1. Verify the API returns the correct tax amount for the given income of **\$0**
 - **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=0
 - **Expected outcome:** code 200
Owning Tax: 0.0
Tax Rate: 10.5
 - **What to Measure:** owningTax, Tax rate will calculate accordingly
2. Verify the API returns the correct tax amount for the given income of **\$14000**
 - **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=14000
 - **Expected outcome:** code 200
Owning Tax: 1470.00
Tax Rate: 10.5
 - **What to Measure:** owningTax, Tax rate will calculate accordingly

3. Verify the API returns the correct tax amount for the given income of **\$14001**
 - **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=14001
 - **Expected outcome:** code 200
Owning Tax: 2,450.18
Tax Rate: 17.5
 - **What to Measure:** owningTax, Tax rate will calculate accordingly
4. Verify the API returns the correct tax amount for the given income of **\$48000**
 - **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=48000
 - **Expected outcome:** code 200
Owning Tax: 8400.00

Tax Rate: 17.5

- **What to Measure:** owningTax, Tax rate will calculate accordingly
5. Verify the API returns the correct tax amount for the given income of **\$48001**
- **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=48001
 - **Expected outcome:** code 200
Owning Tax: 14400.30
Tax Rate: 30.0
 - **What to Measure:** owningTax, Tax rate will calculate accordingly
6. Verify the API returns the correct tax amount for the given income of **\$70000**
- **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=70000
 - **Expected outcome:** code 200
Owning Tax: 21000.00
Tax Rate: 30.0
 - **What to Measure:** owningTax, Tax rate will calculate accordingly
-
7. Verify the API returns the correct tax amount for the given income of **\$70001**
- **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=70001
 - **Expected outcome:** code 200
Owning Tax: 23100.33
Tax Rate: 33.0
 - **What to Measure:** owningTax, Tax rate will calculate accordingly
8. Verify the API returns the correct tax amount for the given income of **\$180000**
- **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=180000
 - **Expected outcome:** code 200
Owning Tax: 59400.00
Tax Rate: 33.0
 - **What to Measure:** owningTax, Tax rate will calculate accordingly

9. Verify the API returns the correct tax amount for the given income of **\$180001**

- **Action:** on Postman Post <http://24.199.68.169:8081/api/calculateTax>
In the Request body, income=180001
- **Expected outcome:** code 200
Owning Tax: 70200.39
Tax Rate: 39.0
- **What to Measure:** owningTax, Tax rate will calculate accordingly

Schedule Delays: