VisualCortex

General Coding Exercise

Introduction

In this exercise, you'll create a simple tax calculator.
The premise is simple: You select which year you're doing your tax for, and the program will output how much tax you should pay.

Think of this as a simpler, command-line version of the official Australian Tax calculator website found at:
https://www.ato.gov.au/Calculators-and-tools/Host/?anchor=STC&anchor=STC#STC/questions

While we'll be assessing code, we're mostly interested in *how* you tackle this problem. Keep in mind the principles of reusability, robustness, maintainability and cleanliness. Remember - if this was in production, you'd be maintaining it at least once a year as new tax rates come out.

A command-line transcript of a session with this calculator might look like the following:

```
Please enter the income year (eg: 2020-2021): 2020-2021
Please enter your total taxable income for the full income year: 96200

The estimated tax on your taxable income is: $21,732.00
```

Guidelines

You can use any language you want, as long as it's readable and works on the command-line. Common choices for this role would be Python, Node.js or Rust, but they're by no means your only choices. At VisualCortex, we recognise that not everyone is as comfortable in the same technology stack - that's what makes our team interesting and diverse.

You can be as flexible as you like in your solution. You could include a command-line selector library instead of just prompting for input. You could show a breakdown of the tax rates in a table if you wanted to - it's up to you. None of this is mandatory, but it does help give us an idea of your coding style. The only hard requirement is that the total tax must be correct given the input. It's recommended that you cater for at least the `2021-2022` and `2020-2021` tax years. The ATO provide official information on tax rates and how they work.

Submission

Submit your code whichever way you can. If it's Javascript, providing a link to a StackBlitz Node.js URL would be easiest.
If it's something else, a link to a GitHub repository would be easiest. If there are any requirements beyond the compiler/interpreter for your language, a Dockerfile would also be appreciated so that we can run your solution.

Next Steps

After your submission has been reviewed, you'll receive communication from someone in the VisualCortex team.