# **Zopa Technical Test**

There is need for an application to find a quote from Zopa's market of lenders for 36-month loans that apply interest on a monthly basis.

Each lender in the market offers an amount of money to lend and the annual interest rate they expect in return. A list of all lenders and their offers will be provided in a CSV file.

Provide as low a rate as is possible to ensure that Zopa's quotes are competitive against our competitors'. The monthly repayment amount and the total repayment amounts should be shown in addition to the amount requested and the annual interest rate for the quote.

Repayment amounts should be displayed to two decimal places and the annual interest rate displayed to one decimal place.

A quote may be requested in any £100 increment between £1000 and £15000 inclusive. If the market does not have enough offers to fulfil the request, then the application should state that it is not possible to provide a quote.

**The application should take arguments in the form:**

```
[market_file_path] [loan_amount]
```

**And produce outputs in the form:**

```
Requested amount: £XXXX
Annual Interest Rate: X.X%
Monthly repayment: £XXXX.XX
Total repayment: £XXXX.XX
```

**Example output**:

```
> $ ./zopa-rate market.csv 1000
> Requested amount: £1000
> Annual Interest Rate: 7.0%
> Monthly repayment: £30.78
> Total repayment: £1108.10
```

## **Remarks**

* We accept submissions in any of the following languages: C#, F#, Java, Kotlin, Scala, Python, JavaScript, though we recommend you choose the language most suitable to the role you are applying for.

* The monthly repayments should spread the total repayment cost over the term of the loan. Here is an explanation of how to calculate this: https://en.wikipedia.org/wiki/Amortization_calculator#The_formula

* We will review your code and run it against further test cases to see how it handles them

* The market.csv file used for the example above will be given alongside this specification.

* We're interested in discovering more about your engineering skills and approach when solving problems. It is acceptable to submit your program if it returns an answer that does not exactly match the example given.

* If you have any questions, then don't hesitate to contact us