Summary

Write an application that given a number of pennies will calculate the minimum number of Sterling coins equivalent to that amount.

Eg. 123p = 1 x £1, 1 x 20p, 1 x 2p, 1 x 1p
You should be prepared to spend at least two hours on it.

Requirements

Account for only the common £2, £1, 50p, 20p, 10p, 5p, 2p and 1p coins. Ignore £5 coins. The user interface should consist of a input field that accepts an 'amount' string (Eg. 91p, £2.24) and displays the denominations needed when the user hits 'enter'.

All the files required to run the app should be added to Github / Bitbucket or similar, or supplied with Git metadata as a commonly used archive format (.zip, .tar.gz, .bzip or .rar) If you are going to submit using Github / Bitbucket or similar, please supply a url to your repo when you are finished.

Programming Language

1. Front End (Web Browser): Javascript / React, CSS and HTML
   You are required to use JavaScript / React, CSS and HTML.
   No server-side code is allowed.
   The application must work in the latest version of Chrome.
2. Terminal: Language upon agreement.
   A panel should be printed in the terminal simulating the looks of a browser frontend app. The input should happen in a simple manner in the command line. After Enter is pressed a new update panel should be printed in the terminal with the result of the operation.

What we are looking for

- High quality and maintainable code.
- Use of best practices ideally using Functional Programming (where possible).
- “Atomic” commits with good commit messages
- Test cases for your code. This is **essential.**
- Well documented and commented code where necessary.
- Follow coding standards.
- Extensible user input parsing and validation.
- To sensibly separate functionality (Eg, input, models, utils, views, tests).
- Clean visual design.

Test Data

In the first column is a string of user input, and in the second the desired integer expressed as pence.

Input	Pence	Description
6	6	Single digit
75	75	Double digit
167p	167	Pence symbol
4p	4	Pence symbol single digit
1.97	197	Pounds decimal
£1.33	133	Pound symbol decimal
£2	200	Single digit pound symbol
£20	2000	Double digit pound symbol
£1.97p	197	Pound & pence symbol decimal
£1p	100	Missing pence
£1.p	100	Missing pence, Decimal point present
001.61p	161	Buffered zeroes
6.235p	624	Rounding with pence symbol
£1.256532677p	126	Rounding with pound and pence symbols.

Likewise, the application should not accept the following inputs;

Input	Pence	Description
	0	Empty string
1x	0	Non-numeric, non-symbol character
£1x.0p	0	Non-numeric, non-symbol character along with valid symbols
£p	0	Missing digits