Touch Coding Challenge

Welcome to the Touch by AJ Bell technical test. The purpose of this test is to get an example of what you consider good quality, production-ready code.

What we are looking for

- A backend service that fulfills the requirements of the challenge
- A solution that can be simply built, tested and run
- A write up that explains your decisions and any assumptions.

You are free to use any technologies or libraries that you like. Any evidencing of skills and technologies on the job specification would be advantageous.

Challenge

When a new investor is onboarded to the platform, an adviser will work with the investor to identify sources of funds for investment. Cash investments (from inheritance, sale of property or disinvestment elsewhere) are configured as a nominal incoming amount and a distribution between tax wrappers within investment pots.

A client has at least one investment pot. Each pot can contain one or more accounts, but only one of each wrapper type.

A wrapper type is one of:

- GIA: General Investment Account
- ISA: Individual Savings Account
- SIPP: Self-invested Personal Pension

A **deposit** is a cash investment sent by the client. They are defined as follows:

```
Client          £100,000 (nominal)
├── Pot A
│   ├── GIA Account   £ 10,000
│   ├── ISA Account   £ 20,000
│   └── SIPP Account  £ 50,000
├── Pot B
```

. ├── GIA Account   £ 20,000

. . etc.

. etc.

A deposit may be sent in one or more parts called **receipts**. The total of the actual receipts may be greater or less than the nominal amount configured for the deposit.

The nominal allocations to ISA and SIPP accounts must not be exceeded.

The platform requires a service to manage deposits. It should provide the ability to:

- Set up one or more deposits for a client
- Record one or more receipts against a deposit, which distributes to the relevant accounts
- Retrieve an existing deposit, together with receipts and actual account allocations