

# Partner Engineer Assignment

## Introduction

Lemonade has decided to start selling homeowners insurance through API to different partners. Our first partner is Powerful Mortgage - a well known mortgage lender that believes our cooperation can benefit both sides. They contacted our BizDev team and want to run a POC for this partnership.

Before you get started, we recommend you take a few minutes to familiarize yourself with some basic insurance terms [here](#). Feel free to explore, but for this assignment make sure you're familiar with **Quote, Policy, Premium** and **Effective Date**.

## The POC

Powerful Mortgage has a website, where their customers fill the following data in order to receive a mortgage offer:

- First name
- Last name
- Email
- Birthdate
- Address
- Property size
- Property's built year

After the user has accepted the offer, they are redirected to a Thank You page where they are also offered our homeowners insurance. Under the Thank You message they will see the following message:

"You can get Lemonade Homeowners insurance for just **\$XX/month** - [Click here](#) to see more details".

If they decide to move forward, they will see the following details about their quote:

- Quote ID
- Quote status (should be "ready" when first created)
- Monthly premium

And they can click a "Pay" button that will pay for that quote as part of their mortgage payment. Once payment is approved on our end, a policy is created and the user receives an email with the policy details.

### Several notes:

- Quote and Policy entities already exist in the system for a regular user flow that purchases a policy directly through [www.lemonade.com](http://www.lemonade.com).
- For the sake of this assignment, assume a quote can be paid for in one of two ways:
  - Mortgage - if we have the customers mortgage ID, we can process payment immediately
  - Credit card - when paying by credit card, we use a stripe token to process payment
- All the described UI is implemented by Powerful Mortgage. Our goal is to only provide API that supports their user flow.

## The Assignment

Please read it the entire assignment before you begin.

Taking a look at the code template in part 2 is recommended before starting part 1.

**A general note** - if something is not defined in this document, you can define it yourself. Just make sure you note all of your assumptions.

1. Design an API to support Powerful Mortgage.
  - a. Create the documentation for the required endpoints.
  - b. Power Mortgage also has a back office system, where they want to see all their existing quotes and policies. Please create endpoints for this case as well.
2. Open this: [Code Template](#) and add your code to support these APIs based on the requirements.
  - Please use the functions in the **mocks.js** file. Think of them as the business logic of the rest of the system which you should not implement. However, if you think some data should be added to the mocks, you can add it.
  - These files are for reference only: **items.router.js**, **items.controller.js**, **items.service.js**. You should not use them at all, but just their structure and the data flow as a reference. You can create as many other files as you want.
  - Test your endpoints by making requests to url created by CodeSandbox to your view (you can see it on the top of the internal browser)

3. In addition to the code itself, prepare a presentation walking the partner through implementing the new API you built. In the next interview, you'll have an opportunity to present this to our team as if they're Power Mortgage.

Good Luck!