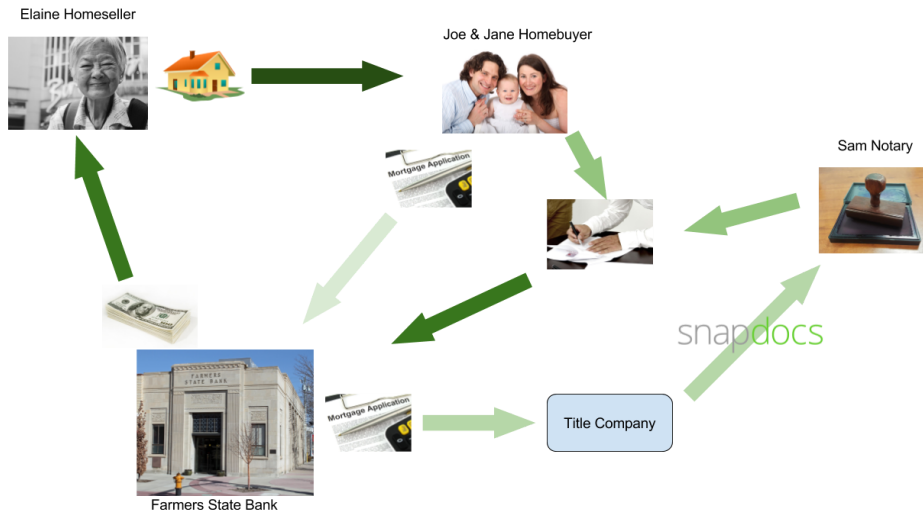# Some background on Snapdocs

Snapdocs is a platform that helps companies find notaries for real estate related signings.

A classic scenario is when a home buyer gets a mortgage to buy a house. The mortgage application has to be vetted and researched by a handful of companies, but at the end typically a Title Company will reach out to notaries to see if anyone is available to notarize the signing. The notary will then take the documents to the homebuyers to notarize their signings, and then the notary delivers the documents. After this, the lender will release the money.

Snapdocs is a bit like Uber, companies can simply open their account, select a place & time and we'll automatically source the notary. We allow companies to set their own prices though, so some companies will pay notaries more than others.

Companies that don't use Snapdocs traditionally maintain their own internal list of notaries and manually call them for every signing. Continuing the Uber analogy, it's similar to calling individual cabbies and asking if they're free.

While home purchasing is the clearest example, Snapdocs facilitates signings for a number of transactions. The three you need to know about are: purchases, refinances and reverse mortgages. From Snapdocs' perspective, they have the same requirements in finding a notary but may be easier/harder cheaper/more expensive.

The project

We just landed a big new opportunity for Snapdocs. Bigly Title Service is interested in giving us all of their business in their home state of Alabama starting next month!

Bigly is interested after we did a pilot for all of their Tennessee-based business and 10% of their Alabama-based business over the past month. They put ~100 signings via Snapdocs and felt the platform was easy to use and gave consistent results compared to the Signing Service they were using in the area.

Part 1

While the Sales team is popping champagne, our VP of Operations pulls you aside with a look of concern. It turns out that Bigly has two different teams that schedule orders, and after chatting with the team handling Alabama he's worried their orders *might* be different from what we were handling in Tennessee.

Take a look into our data in the rest of this repo to either allay or confirm his concerns. Draft an email (a 1-page google doc is fine) that outlines what you found and what you'd recommend.

Part 2

Bigly wants to make sure they are getting the best notaries, the finest, ones that everyone will agree are way better; definitely no bad hombres. Anecdotally, Bigly knows that not all signings are equal: for example refinances are pretty standard and notaries can wrap it up in about 30 minutes; while reverse mortgages are more intricate and require a lot more time and diligence. Thus, to get the best notaries, Bigly expects to have to pay more for more difficult signings.

Using the same data, come up with pricing guide for Bigly schedulers. The goal is to ensure a good notary (one of the first 10 contacted) but not run away with huge fees. The rules should be simple enough that they'll remember it but nuanced enough to provide benefit. Draft a 1-page brief/outline for the internal Snapdocs team about what's going into your model and include a 1-paragraph instruction set for Bigly's schedulers.

Deliverables
- Part 1: Email on findings
    - MAX 1 page.
    - Audience: VP of Ops
    - Content: Address concern over differences in signing products
    - Include a link to any relevant work (github, mode report, etc)

- Part 2: 1-page brief on pricing structure
    - Audience: general Snapdocs employee
    - Content: overview of methods, recommendation
    - Include link to relevant work
- Part 2: 1-paragraph instructions to schedulers
    - Audience: Bigly schedulers
    - Content: Guidelines of how to price

Time expectation

Assume these are urgent deliverables that we can revisit and improve ("can we see a first version tomorrow?"); they should be broadly right but not perfect. Don't spend more than four hours on it.

Data structure
- Orders.csv
    - 1 row per order
    - Bigly is company_id 1 (naturally)
- Messages.csv
    - 1 row per notary message
        - Snapdocs search works by sequentially messaging notaries to see if they're available
        - Notaries are ranked based on quality factors, thus higher-quality notaries have an earlier chance to pick up the order
            - Notaries can miss the message or be slow to respond, so even if they respond "available" the order may go to a faster-responding/lower-ranked notary

What we're grading on
- Validity of findings
- Communication effectiveness
- Reproducibility of work