Live Project: <https://apps-dev.suffolklitlab.org/interview?i=docassemble.playground234IPestimator:IP_Estimator.yml>

Code: <https://github.com/ianeis/ipEstimatorProject>

**Final project description**

In the beginning, we consulted different patent attorneys from different firms to get a broad understanding of how to estimate the cost of filing a patent. Some attorneys told us the actual fee which the user will be quoted will vary based on the field of the invention, the complexity of the invention, the state of the art, etc. Therefore, we began to design the questions based on the answers we received from the attorneys.

From the consultation with the patent attorneys, we also learned that most of the individual and small business clients prefer the fee quote approach, while large corporations prefer hourly billing. On average, the fixed fee might be slightly higher than hourly rate, but the users avoid the risk that the time spent exceeds the estimate. Because our target users would be individual and small business users, so based on the above information, we design our estimate using the fixed fee approach.

For the professional fees, we collect eight fee schedules from eight different patent firms from different states. The eight law firms include both big firms such as Knobbe Martins, McDermott Will & Emery, and Morgan Lewis and smaller firms such as Traskbritt. we averaged their fixed fee to answer an office action to reach the number of the attorney fees of examination.

For official fees, we went to the US Patent and Trademark Office (USPTO) website and recorded the corresponded official fee for each category listed in our app. The official fees included in our calculation is listed below:

|  |  |  |  |
| --- | --- | --- | --- |
| **DESCRIPTION** | **Large Entity Fee** | **Small Entity Fee** | **Micro Entity Fee** |
|
| Utility Application Basic Filing Fee | 320 | 160 | 80 |
| Excess Claims: more than three Independent Claims (per indep. claim over 3) | 480 | 240 | 120 |
| Excess Claims: more than 20 total claims (per claim over 20) | 100 | 50 | 25 |
| Utility Application Search Fee | 700 | 350 | 175 |
| Utility Application Examination Fee | 800 | 400 | 200 |
| Surcharge - Late Provisional Filing Fee or Cover Sheet | 60 | 30 | 15 |
| Design Filing Fee or Continuing Prosecution Application (CPA) | 220 | 110 | 55 |
| Design Search Fee | 160 | 80 | 40 |
| Design Examination Fee | 640 | 320 | 160 |

After all the questions have been designed, we begin to do the calculation for our estimate. As an example, when calculating the filing fee of a non-provisional patent, we add the official filing fee of 2920(filing fee 320+searching fee 700+examination fee 800+issue fee 1200) and the professional fee of 1000 in a total of 3920 to the amount. The process was fairly complicated, and we did the calculation multiple times to make sure we have the correct number.

We designed and coded the interview in Docassemble. We started by creating a barebones interview with the Weaver tool on the Suffolk Lit Lab website. We then refined the interview in the Suffolk Lit Lab Playground.

Most of the code for turning interview answers into fee calculations takes place in a single block at the very end of the interview; this reduces the amount of load time between screens and makes the calculation code easier to edit. The calculation script starts by setting every template variable to 0, then modifying each template variable depending on the user’s answers.

As we worked on the interview, we edited and re-formatted the questions so that they would be as intuitive to the user as possible. We kept the interview to one question per page as to not overload the user. Generally, we saved visible subquestions for important tips every user should see, keeping more detailed tips and definitions to help tags. Also, we added an “exit” page which instructs the user that the interview does not help them if they select “Utility Model” in the first question so to not waste their time.

The interview produces a complete report which can be downloaded by or emailed to the user. This report includes both the itemized estimated fee, and detailed “next steps”/filing information to which the user can refer.

Currently, the interview is mostly complete and fully functional except for aesthetics and styling. There are some bugs we could not iron out by submission which are discussed in the “next steps” section at the bottom of this report.

#### Feedback

From what we learned in class, we understand an important step of development is reaching a prototype so that we can demonstrate our project to other patent attorneys and solicit feedback. Therefore, we sent our app outline to one of Jason’s mentors to get advice and feedback. One of the most important feedbacks he gave is to explain some of the terms in our question so the users could understand what those key terms represent. To address this feedback, we did more research on each question and tried our best to explain the terms in simple and plain language to the users. For example, we include the descriptions of large, small, and micro-entities and how drawings work in a patent filing in our questions.

Another patent attorney suggested we should make it clear to the user that, to some degree, the cost of preparing the application is under the inventor’s control - the more work he does before he hands it to a patent attorney, and the better thought-out his disclosure is, the less time the patent attorneys have to spend drafting the application, and hence the lower the fee will be. To address this feedback, we put this explanation into our final report to the user.

One patent attorney asked us why we didn’t include an international filing into the estimation as there are so many patents are filed overseas and the inventors have no clue of how much it would cost in a foreign jurisdiction. For this feedback, we thought about it, but it would be involved so much work of gathering information in regard to official and professional fees in other jurisdictions. We don’t have the resources or the time to do that, so this feedback is a good idea but is too advanced to reach for us.

#### The next steps to continue refining the project:

Another feedback from one of the experts is, for the calculation of professional fees, the hourly rates of different patent attorneys from different sizes of law firms are different. So, the estimated result would be very different depending on what size of the firm the inventor is going to use. To solve this problem, we think it would be helpful to include two sets of estimate ranges (low and high) in our final report. The high estimate is for an attorney from a bigger firm to file a patent and the low estimate is for an attorney from a small or median firm to file a patent. Then the user would receive a better and flexible estimate of their invention.

There are some bugs that we could not iron out before submission. The “type of invention” question is only relevant to users who answer “non-provisional patent” to the first question, so users who select otherwise should not see that screen. However, attempts to remove the “type of invention” question screen merely moved the question to the end of the interview. Similarly, the “claims” question is not relevant to users who do not answer “design patent.” Our short term fix was eliminating the effect of these questions in the fee calculation depending on their interview answers, but ideally the user should not answer any questions that are irrelevant to them.

One other issue is the “What is your name?” page at the end of the interview. The user’s first and last name is not used at all in the template but it is still a required question for them. It was not simple to remove this page since the name variables are used in the default Court Forms Online download page and email, but if we had more time it would be good to remove the question entirely so not to ask the user for unnecessary personal information. There are some other remnants of the Court Forms Online Weaver template that can also be removed.