Help My Mom.

> *A few months ago, the display on my mother's work laptop stopped turning on. Now, with me being the sole Computer Science major of the family, the task of sorting out her issue was immediately designated to me. Despite my expertise, her descriptions of the issue made it seem quite daunting. Her words painted images of thick black smoke billowing from ventilation fans and recreant flames curling around melted aluminum. She stressed that she had exhausted every possible course of action and that my actions would be in vain because nothing could be done to save her ill-fated work laptop. Her IT department had convinced her that the computer was terminal, and the only course of action was to start digging a grave for it in the backyard. As I began troubleshooting, she sat next to me, painstakingly considering custom tombstone designs on her phone. However, after just two minutes of searching, I was able to determine the issue and called off the funeral planning. Her problem: she had hit the f6 key and turned her display off.*

Every day, parents around the world deluge their children with requests for technological assistance. While the hundreds of questions that young people receive from old-timers each year will range between adjusting screen brightness on Windows Vista to turning off airplane mode on an iPhone Four, they are all united in their inconvenience. To be the son of a mother is to be awoken at three in the morning when your mom can't figure out how to change her desktop background. To be the daughter of a father is to get phone calls in the middle of class when your dad can't figure out how to get the pictures from his Google Photos account onto his Facebook profile. "Kids these days" are in desperate need of somewhere to outsource their parents' tech support requests to; somewhere like **Help My Mom**.

Help My Mom is a cutting-edge mobile app that connects those experiencing tech problems with knowledgeable experts who can help. **Help My Mom** aims to provide high-quality, reliable assistance for an affordable price with a strong emphasis on accessibility and security.

Users of the app will fall into one of three categories:

1. *Moms* … the users that are experiencing a problem.
2. *Children* … any trustworthy person in the life of a *Mom*. They will be responsible for setting up their respective *Mom's* account as well as finding Helpers that can meet their specific needs.
3. *Helpers* … the most important members of the **Help My Mom** ecosystem; these users will be responsible for providing technical assistance to the *Moms*.

BASIC WORKFLOW.

Regardless of a user's role, their experience with the **Help My Mom** app will revolve around the creation and resolution of "help tickets".

- To begin with, either a *Mom* or a *Child* will create a help ticket which details some particular problem the *Mom* is experiencing.
  - o Regardless of who creates the ticket, responsibility for choosing helpers for each ticket will always fall to the *Child*.
- Once the *Child* has selected a few potential *Helpers*, the specified *Helpers* will be notified and given the opportunity to review the help ticket.
  - o The first *Helper* to claim the ticket will be assigned to it.
  - o This encourages *Helpers* to respond quickly which will assist in speedy help ticket resolution.
- When a *Helper* claims the ticket, the *Mom* will be charged for the service and a chat window will open between the *Helper* and *Mom* wherein the two will be able to communicate.
  - o For safety reasons, users are encouraged to prioritize communicating through the dedicated in-app text chat, however, more complicated issues might require the use of outside services such as Zoom.
  - o In this situation, responsibility for creating and maintaining these communication venues will fall to the *Helper*.
- Once the problem has been resolved, the *Helper* will close the ticket and the *Mom* or *Child* will confirm the closure.
  - o At this point, the *Helper* will be required to write a report about what happened and the *Mom* and/or *Child* will have the option to write a review about the Helper.
- When the *Helper* finishes their report, payment for their services will be deposited into their account.

GOALS.

Security

As with any program that brings strangers together, ensuring that users remain safe will be a top priority. Because of the extreme difference in expertise between *Helpers* and *Moms*, significant effort will be made to ensure that *Helpers* do not take advantage of their position.

- To begin with, all Helpers must be above the age of 16. When creating an account, Helpers will need to provide their date of birth to validate their age.
- Help My Mom will feature an extensive report system that will allow Moms and Children to report Helpers who are unprofessional or rude. The reports will be reviewed by attentive moderators who can discipline the errant Helpers or remove them from the app entirely.
- Additionally, the application will utilize a review system to ensure that Children can pick the best Helpers for the job. Upon the completion of a help ticket, Children and Moms will be prompted to assign a star-rating (out of 5) and write a short review about the Helper's performance. An average rating score would be displayed on the Helper's profile along with all that Helper's reviews to assist Children in finding a good fit.

Transparency

As each help ticket requires interactions between members of all three categories, ensuring everyone is fully involved and present in the process will be a must for resolving tickets quickly and effectively. To best facilitate this goal, Help My Mom will provide a variety of communication avenues between parties.

- At five important stages in the process, all parties involved will receive an email notifying them of developments in the lifecycle of the help ticket when appropriate. These stages are as follows:
  1. A new ticket has been created.
  2. The *Child* has picked *Helpers* for the ticket.
  3. A *Helper* has accepted the ticket.
  4. The *Helper* has marked the ticket as completed.
  5. The *Mom* or *Child* has marked the ticket as approved.

  ^ As a quality-of-life feature, the *Child* will be able to opt in or out of notifications at each stage.

- Help My Mom will utilize a custom in-app messaging service between Moms and Helpers that keep a log of their interactions.

Ease of Access

As the userbase of Help My Mom will possess a varying level of technological acuity, the application will need to be created with broad accessibility features in mind.

- The default app will utilize a high contrast theme to help vision-impaired users. Following the example set by Microsoft Windows 11, this theme will

feature a limited selection of colors and a text-to-background contrast ratio of at least 7:1.
- In settings, users will be able to change the font size to improve text-readability.
- As a general design principle, UI elements (e.g. buttons, tabs) will be made large to ensure that they are readable and stand out visually on the screen.

CONCLUDING REMARKS.

The Help My Mom app provides an invaluable service to a wide range of people. For Moms, it will be a useful tool for solving all the pesky little problems that pop up with modern tech. Children will use it as a time-saving technique, and Helpers will find value in being financially compensated for honing their skills. The above implementation allows for the app to remain accessible to users of varying skill levels while still effectively implementing the broad selection of features and functionalities required to ensure our goals of Security, Transparency, and Ease of Access. As "the first American to ever work on the Sonic franchise" Tommy Tallarico puts it, "The rocket ship has been built, we are on the launch pad, so strap yourself in because it's going to be one hell of a ride!"