Mini Project 3  
[Your Project Title Here]

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***Abstract—*** Your abstract should provide a succinct overview of your project. The reader should be able to have a high level understanding of what you have done and why you have done it.

# Background and Significance

First, provide a general background for your project. You may wish to break this down into sub headers depending on your topic (but please keep the overall section header as is for consistency). This background should relate to your solution directly. Consider the topic "Mapping Mobile Health Data for Research". For that, the background might include information on the history of mobile health applications, remote monitoring tools, or difficulties surrounding gathering the data.

Second, provide a justification for the significance of your project topic, not your solution. Answer the question “Why is this topic important?”. Don't overthink this. To return to the sample topic, the significance may be something such as "Mobile health data provides large amounts of data which may provide insight into conditions and improve the quality of patient outcomes."

# Problem

This is the point in your paper you clearly define what problem you are addressing. This is equivalent to a problem statement, though we are looking for more than a single line explanation the length will largely depend on your topic. (Note that this is easier than attempting to create a single concise problem statement, which is often considered to be one of the more difficult part of academic writing.) There must be a logical flow from your background and significance section to the problem summary. There may be some repetition in what you say to reframe the background around the problem. The problem as stated will then be "solved" by your proposed solution in the following section. This section will act as a bridge between your background summary of the topic and what you are implementing for your project.

To again return to the sample topic, a straightforward problem to address would be "It is difficult for researchers to utilize mobile health data due to lack of available access to patient devices and inconsistent data standards." Referencing the example in the background section above, you will see how this is a logical problem to address based on what was established there.

# Solution

Here you will provide details on your solution to the problem as it was stated in the form of whatever you are building. This should be broken down into sub sections as necessary for the nature of your solution. Keep in mind that this ***is not*** the section you will provide user documentation and is still part of the purely academic portions of the deliverable. It must contain the following elements:

1. Narrative Summary - A high level summary describing your solution, including how it addresses the stated problem.
2. Technologies Used - Any tools, data standards, etc. that you used in your project. These may be provided as a list, but you should provide brief summaries of anything that is not common knowledge. (Basically, you don't need to tell anyone what Python is, but you should be able to familiarize a reader with Open mHealth or OMOP CDM.)
3. Sample Data/Data Sets/Data Sources - Anything you use in your project data wise you should describe here. For any sample data that you create you should justify what you did when creating it, addressing how you determined what values to use and so forth. Remember that even though you are describing actions you took, try to keep an academic voice as best as possible. So, you might say “The data was simulated by…” rather than “I simulated the data by…”.

# Complexity or Effort

You should be able to address real world considerations in the development or implementation of your solution. Ask yourself questions such as "what barriers would stand in the way of adoption of my tool?" or "what presumptions were necessary to make during development?". HIPAA and other legal considerations are often major considerations here. This section doesn't have to be exhaustive but should evidence that you have considered your solution in a real world environment.

Note that personal learning curves with common tools would not be considered appropriate here. If there is a particular tool that is well known to be difficult to use or requires some form of specialized knowledge not every organization could reasonably be expected to have, that would be a valid area of complexity as that is a general statement rather than a personal challenge.

Likewise, other personal difficulties such as “I took a week off classes last week because I was ill” is not a valid consideration here.

# Technical/User Documentation

For this section academic formality is relaxed, though your documentation should still be professional even if not purely academic.

This section will provide any relevant technical information for your solution not appropriate for section 5’s more general look at your solution, such as links to code repositories, links to video demonstrations, deployment instructions, and testing instructions. You must submit the following information appropriately split under sub headers:

* Link to Code. You should provide the full URL, not embed the link into a word or phrase. Typically, this will be a GitHub repo. You should always use your GT GitHub account unless there is a technical limitation preventing you from doing so (such as for Heroku deployments). If such a limitation exists and you must use a personal account, please note the reason here alongside your repo link.
* Demonstration. Your documentation must include one of the following options based on the nature of the solution and how you are presenting it.
  + A link to your deployed application, if deployed remotely. You should provide the full URL, not embed the link into a word or phrase. (This is for your sake while grading as Canvas will sometimes break embedded links. Having the full URL provides us something to at least copy and paste.) Include in this document a step by step writeup of how to test the application, being specific with login information, specific patient IDs, and so forth as needed. Failure to provide adequate testing information will result in graders being unable to evaluate your project and may result in deductions.
  + A link to a video demonstration. Videos are limited to 10 minutes in duration and must clearly walkthrough every relevant portion of your application. You should provide the step by step testing write up in this document just as with the deployment option above and use that as a basis for what you show in the video.

# References

1. Reference 1 in APA format.
2. Reference 2 in APA format.
3. Etc.