

# PROJECT 1 CONCEPT SKETCH

**Here we go!** The goal of this activity is to start sketching out your ideas for Project 1. Working with your project partner(s), do your best to fill in each of the four boxes below.

## 1 Question

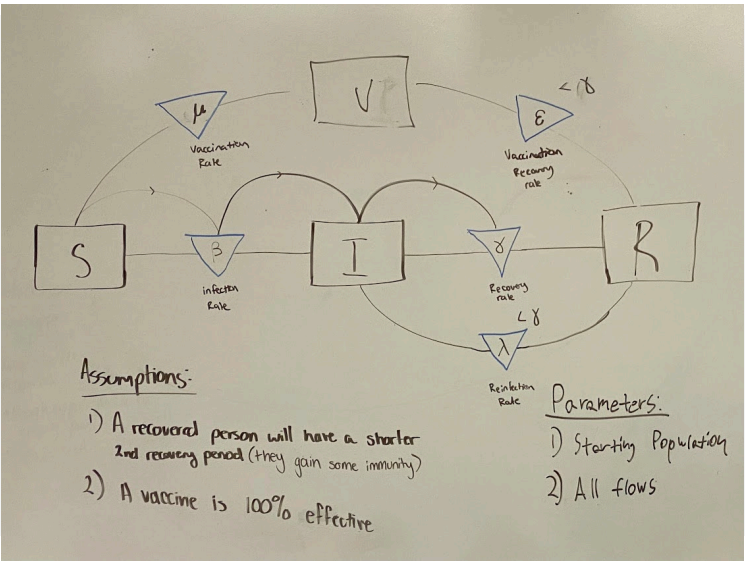
What is your motivating question? Is it an explain, predict or design question? What makes this question interesting; who would be interested in it?

Our motivating question is going to be Option 2, the prediction question, determining how long it would take for the disease outbreak to end. We were interested in this question because we are curious about how we could compare our future predictions to other models to determine our accuracy. We also, after the last year and a half of the pandemic, are curious about learning more about how a disease outbreak ends. This project would be interesting to both epidemiologists and the general public.

## 2 Model

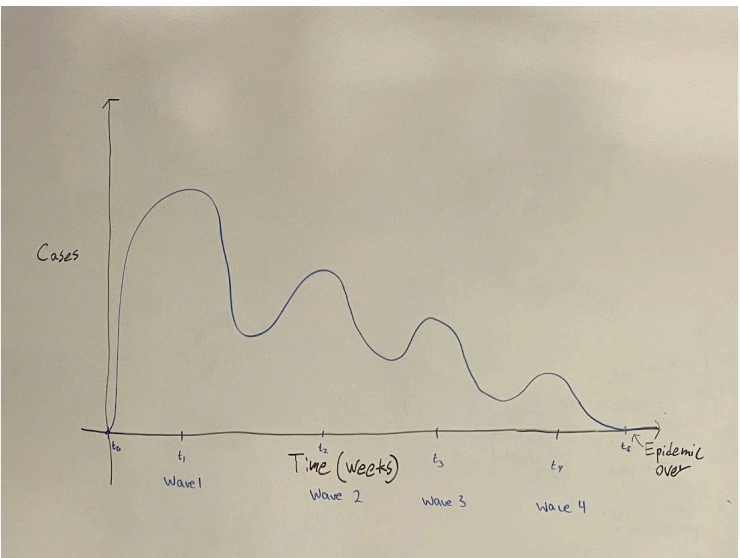
Draw a well-labeled stock and flow diagram here to represent your model. Capture anything else you know about your model (parameters?) and questions you'll need to answer as you proceed.

- Vaccine is available at the start of the epidemic
- There are no mutations of the disease



## 3 Results

What output would you expect the model to produce? Draw at least one graph — be sure to label the axes.



## 4 Interpretation

How will your results help you answer the question? What implications might they have in the real world? Connect this back to "who would be interested in this question."

- Graphically, we will be able to determine the end of an epidemic. We will also be able to see how various factors can affect the timeline of an epidemic.
- This can show how necessary it is to control certain flows in order to lower the total number of infections and duration of the epidemic.
- This will be especially useful for epidemiologists. It would also help the general public to understand how their actions can impact the course of the epidemic.