Team POP

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Big Opportunity/ Problem Statement

Due to the impact of the novel coronavirus (COVID-19), everyday actions like shopping for groceries, visiting the library, and going to restaurants have taken on a new level of risk.

Environmental Analysis Overview

Key-Trends

- Technology:
  - Contact Tracing
  - Machine learning models

Market Forces

- Needs and Demands:
  - Easy to use
  - Fast and reliable information

Macro-Economic Forces

- Global Market Conditions:
  - Rising demand for COVID-19 early breakout detection
  - Increasing competition for developing an efficient and prompt forecasting tool

Industry Forces

- Competitors:
  - Apple
  - Johns Hopkins University
- Incumbents:
  - Private Healthcare Companies
  - Other Techpoint Teams

Jen

- Student at Purdue University.
- Wants to go on a summer trip with her friends.
- Uses POP to identify a safe place to visit and gains an understanding of policy specific to that region.

The Thompson Family

- Family that wants to visit their elderly parents but does not know what the conditions of a state or county will be in the next week.
- Uses POP's COVID-19 forecast map to see how many cases there will be in Bartholomew County to predict covid conditions.

Martha

-Notices her symptoms align with the those described in POP so she finds a testing center by typing her zip code into the app.

Businesses

- Uses POP to show the measures their business is taking to prioritize health and safety.
- Pays POP to advertise their products and services.

Current unsatisfying solution

In response, the market has created a number of tools to help people navigate the new way of life onset by the virus, including contact tracing phone applications, grocery store delivery services, and even sensors that alert people when they're about to touch their face.

Solution Statement

While tools like these provide services and tips on how people as individuals can stay safe, those efforts are undermined and minimized by the unsafe actions of others. With severely limited information about how others publicly behave amid the pandemic, how can anyone make smart decisions about their outings?

Introducing POP

POP is a multifaceted progressive web application developed to help with all things COVID-19. It consists of 4 key functionalities:

1. A machine learning model predicting COVID cases, deaths, and testing at a county level for the state of Indiana with 95% accuracy.
2. A policy dashboard allowing users to look at different regulations and reopening status at a state-by-state level.
3. A crowdsourced map that displays safety levels at your favorite restaurants and stores based upon user feedback.
4. A resources menu including links to testing locations, symptoms lists, and COVID related news.

Value Proposition Summary

Gain Creators:
POP creates value for its customers by creating feelings of informedness and knowledge about the spread of COVID-19 through easy access to information in a fast and functional application., It also works to alleviate fears and concerns about the safety of local businesses and restaurants, allowing the customer peace of mind and a sense of normalcy.

Pain Relievers:
POP seeks to relieve customers pains and frustrations by allowing users to determine where they would feel comfortable traveling to or where they would be better off avoiding. This helps to alleviate the fear or discomfort of going places and makes it easier for the user to do everyday things such as shop, go out to eat, or go to the grocery store.

Integrations/ Tech Specifics

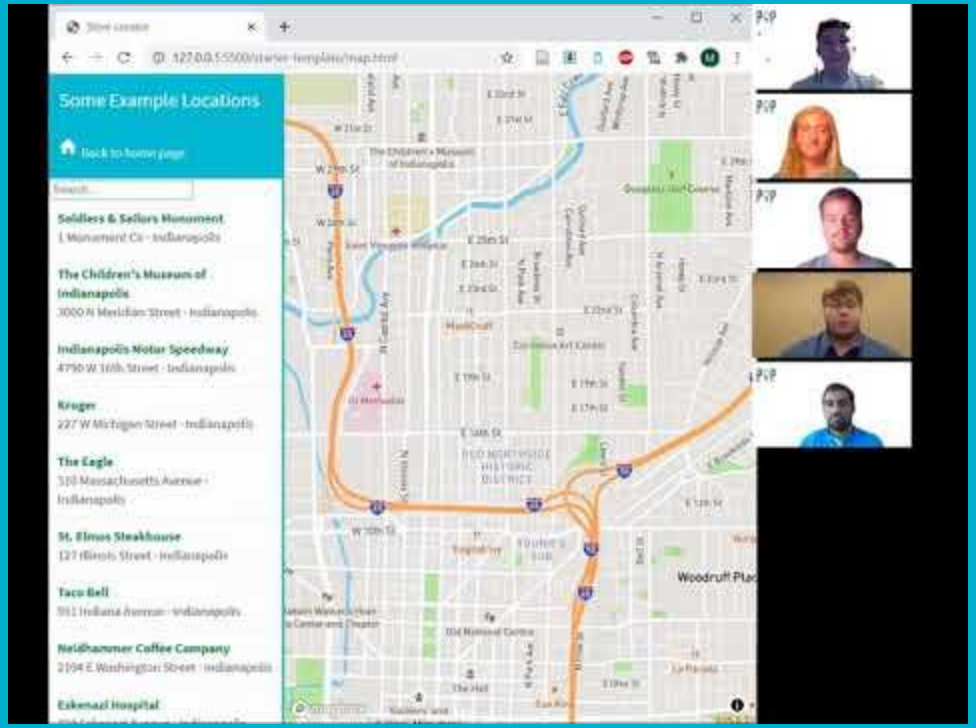
Third-party APIs & Libraries:

- Google News API (Web scratch)
- MapBox API
- Materialize css (UI design)
- Bootstrap (UI formatting)
- Google Material.io (Menu icons)

Other Tools:

- Plotly (Interactive plots)
- TensorFlow 2.0 (Prediction NN)
- Heroku (Hosting server)

Demo


Some Example Locations
Back to home page
Soldiers & Sailors Monument
1 Monument Cir - Indianapolis
The Children's Museum of Indianapolis
3000 N Meridian Street - Indianapolis
Indianapolis Motor Speedway
4790 W 16th Street - Indianapolis
Kruger
227 W Michigan Street - Indianapolis
The Eagle
510 Massachusetts Avenue - Indianapolis
St. Elmos Steakhouse
127 Illinois Street - Indianapolis
Taco Bell
911 Indiana Avenue - Indianapolis
Heidhammer Coffee Company
2104 E Washington Street - Indianapolis
Eskenazi Hospital

Business Model Canvas Overview

Customer Segments:
- Families
- Students
- Businesses
- Immunocompromised individuals
- The elderly

Channels:
- Ecommerce: Digital Download

Key Partners:
- Anthem: provides testing center locations
- CDC: provides symptoms lists and safety guidelines
- Heroku web hosting service
- Indiana State Government: COVID data repository

Customer Relationships:
- Automated Service: Download and installation of the app
- Self-service: General app usage

Key Resources:
- Visual studio code
- MaterializeCSS templates
- Indiana COVID dataset
- Mapbox and Google News APIs
- Google Colab and Tensorflow
- State Regulations Dataset

Revenue Model

Revenue Model	Estimated Revenue	Advertisement Featured Offerings
CPM Advertising	$4-12 per 1000 ads displayed	A simple pop-up advertisement that occurs when the user opens the application
CPA Advertising	$2-10 per action or “click”	
Sponsored Listings	$5-100 a day based upon desired number of appearances	Allow Companies to pay to appear as a suggested location on our map or be highlighted to users

Quotes from Customer Calls

“I think it’s very helpful to be able to see other users feedback when looking to see how safe a store or restaurant is. ”

-Cayla

“It’s nice to have all of the information I need about COVID-19 in one place.”

-Burt

Why Now

“POP is a one stop shop for all things COVID-19!”

POP allows users to:

1. Inform themselves and others about the COVID-19 pandemic
2. Make decisions on where they do or do not feel comfortable traveling based on crowdsourced feedback from other users
3. Have access to a compendium of resources all in one easy to use location