Executive Summary

Overview

Released in May 2020 on Apple and Google, the SoCo COVID-19 Check App provides Sonoma County employees and employers a safe, convenient way to assess for symptoms or contact before entering a workplace. The app is accessible to any government or business entity exemplifying an innovative and collaborative spirit.

Challenge

Sonoma County Public Health Division housed within the County's Department of Health Services, needed a mobile, simple, cost-effective platform to assist health providers, businesses and government offices to open or re-open to serve the public while mitigating COVID-19 exposures.

Public Health partnered with the Information Technology (IT) Innovation Division and utilized design thinking to visualize the client perspective from which to develop a solution. Because we used a citizen-centric model, we decided on a mobile app as being the most accessible and user-friendly. With that in mind, we were able to project a minimal amount of time (less than 30 seconds) for our "client" to complete the pre-screen.

One challenge was balancing time restrictions with requirements outlined by the Centers for Disease Control and Prevention (CDC) that included both a symptoms check and a screen for COVID-19 exposure. Another key challenge was working with two independent vendors, Apple and Google, and factoring into our launch their separate processes for privacy as well as security and notification requirements.

Solution

Once the Sonoma County Public Health and IT Innovation team had determined requirements and selected the mobile app platform, IBM was contracted to create the SoCo COVID-19 Check App. The development of the COVID-19 Check App provides a daily questionnaire to track an individual's symptoms and potential exposures. If the person is symptom free with no recent exposure to COVID-19, the app produces a badge including the date and time indicating they can report to work. The badge is shared with the employer and the employee is cleared for work from the employer side of the app.

A primary innovative component was that we did not create the app with just Sonoma County in mind. We selected a delivery method (Apple and Google Playstore) which enabled any entity to download and use the app for free. Due to time and urgency of the pandemic, we chose an agile approach to the project. We had our first release in just over three weeks, we managed a backlog of items which we rolled out in the next two versions and we were able to deliver 3 releases in a two month period.

Because this app was intended for both county employees and public businesses, our IT team took the following approach. First, we made sure the App was as intuitive as possible, beta-tested and tested again with pilot groups so that it would be bug-free before release. Second, we provided several community partner trainings with local cities, police and fire departments and created step-by-step user guides for both the client side and the employer side of the App. (See Attachments)

Other innovative component built in the app are URL links and dashboards. Individuals can click on links, maintained by Public Health, with current information on COVID-19 in the county and CDC. The Public Health Officer has dashboards to analyze community and population-level data to view how various sectors are implementing mitigation measures.

Innovation

SoCo COVID-19 Check App is unique amongst counties and cities. Sonoma County was the first county in California to release a COVID -19 App specific to screening community members in order to create a safer return to work, school, etc. Sonoma County is also one of the first governmental entities in the country to develop an app of this kind whose focus is on the safe reopening of communities. Not only innovation, but Equity of use was critical in our solution. The employer version is designed to contain the employee self-check questions for individuals who do not have access to a smartphone.

Results

The SoCo COVID-19 Check App has been used regularly by local businesses and government since June of 2020. It was part of multiple Public Health Orders and a key component in reopening businesses and screening employees who are entering their offices each day. Based on the most current data, 977 companies are using the application, 28,952 people have downloaded the app, and over a million (1,064,601) total wellness checks have been submitted. In addition, 2,209 average daily wellness checks are submitted and of those 1,861 average daily with no symptoms or contact and 96 average daily with symptoms or contact.

Lastly, the data available from the app has provided a broader picture of the population to Sonoma County Health Officials, contributing to more informed policies in response to this unprecedented pandemic.

Replicability

Any government or business entity can download the SoCo COVID-19 Check App for free from the Apple or Google Playstore. If the app is only used for screening as described above, that's all a business entity needs. It's free, again exemplifying an innovative and collaborative spirit. Many local governments and colleges have already reached out to determine how they could use it and tailor the links to their locations.

The dashboard data is based on Sonoma County zip codes. Therefore, if another local government wants to track the aggregate data on their population, then they could contract with IBM to create their own, cloud-based data repository. This prevents data from one county from showing up in another jurisdiction. The cost for reporting storage would be minimal and based on length of time and data storage needs.

The SoCo COVID-19 Check App was completed at a total cost of $160,000. There are no real operating costs once the app is built, however making updates regularly may incur costs in the future. The COVID-19 Check App is built for a specific timeframe and is intended to be used for the duration of the COVID-19 pandemic itself. We have not made any major revisions and if there is need to update text included in the app, the Department of Health Services staff are trained to make these changes. This was done intentionally so operating and maintenance costs and work were not burdensome as our staff responds to the pandemic.

Please see below for a breakdown of the capital costs needed to get this app built.

Resource/Skill	Estimated Hours	Hourly Rate	Estimated Charges
Delivery Executive	18.00	$ 350.00	$6,300.00
Project Manager	163.00	$ 160.00	$26,080.00
DS&P Specialist US	7.00	$ 225.00	$1,575.00
Architect Lead	8.00	$ 350.00	$2,800.00
Lead Developer	163.00	$ 145.00	$23,635.00
Developer	163.00	$ 145.00	$23,635.00
Scrum Master/BA	163.00	$ 125.00	$20,375.00
Developer	163.00	$ 85.00	$13,855.00
Developer	163.00	$ 85.00	$13,855.00
Jr. Developer	163.00	$ 85.00	$13,855.00
Tester	165.00	$ 85.00	$14,025.00
	1,340.00		$160,000.00

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Additional Materials
- Website https://sonomacounty.ca.gov/Health/Disease-Control/Coronavirus/SoCo-COVID19-Check-App/ FAQs, instructions and privacy policy are available on the website.
- SoCo COVID-19 Check App – Employee Setup, SoCo COVID-19 Check App – Employer Setup
- Download from Google, Download from Apple
- Article Press Democrat May 24, 2020, "Sonoma County to require cellphone app, temperature checks for employees returning to the workplace"
- Dashboard Image: