

2020

# Hawai'i Annual Code Challenge (HACC)

<b>Challenge Title</b>	COVID-19 Chatbot
<b>Department / Organization</b>	NIC Hawaii
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<b>The Challenge</b>	
<b>Describe situation to be solved</b>	In these challenging times, when COVID-19 information is changing daily, it is crucial to provide the most up-to-date information at any given time to the citizens of Hawaii and those visiting the islands. We are all in this fight together against the COVID-19 pandemic. Chatbots, if effectively designed and delivered, can help us all by quickly sharing up-to-date information and encouraging desired healthy behaviors.
<b>Preconditions</b> <i>(How does it work now)</i>	<ol style="list-style-type: none"><li>1. Currently users visit various sources to obtain Hawaii COVID-19 information including <a href="https://hawaiicovid19.com/">https://hawaiicovid19.com/</a> and <a href="https://health.hawaii.gov/coronavirusdisease2019/">https://health.hawaii.gov/coronavirusdisease2019/</a>.</li><li>2. Users can call in for information.</li><li>3. The current live chat system provided by Aloha United Way is not available 24-7 and is potentially unmanned <a href="https://www.auw211.org/">https://www.auw211.org/</a>.</li></ol>
<b>Assumptions/Issues</b> <i>(list any conditions that could impact the solution)</i>	<ol style="list-style-type: none"><li>1. Chatbot will function on multiple platforms (desktop and mobile).</li><li>2. Chatbot will not collect PII.</li><li>3. Chatbot will not store using information.</li><li>4. Chatbot will be available 24-7.</li></ol>
<b>Current Approach</b> <i>(how is situation currently being handled)</i>	<ol style="list-style-type: none"><li>1. See Preconditions. Various agencies have their own website containing COVID-19 information.</li></ol>
<b>Users</b> <i>(Who would use the application - employees or constituents or both? How many users would there be?)</i>	<ol style="list-style-type: none"><li>1. The chatbot would be open to everyone (Hawaii residents, visitors, employees, etc.).</li></ol>
<b>Business Rules</b>	<ol style="list-style-type: none"><li>1. Build a knowledge base of COVID-19 information from<ol style="list-style-type: none"><li>a. <a href="https://hawaiicovid19.com/">https://hawaiicovid19.com/</a></li><li>b. <a href="https://health.hawaii.gov/coronavirusdisease2019/">https://health.hawaii.gov/coronavirusdisease2019/</a></li></ol></li><li>2. Provide a means for the State to update the knowledge base.</li></ol>

	<ol style="list-style-type: none"> <li>The chatbot will allow users to ask open-ended COVID-19 related questions and receive a response.</li> <li>The chatbot will provide an accurate answer to the user's question or direct the user to the appropriate agency (DOH, DOT, physician, etc) for more information.</li> <li>The chatbot will be able to be integrated into an agency website.</li> </ol>
<b>Special Requirements</b>	<ol style="list-style-type: none"> <li>The chatbot should be able to handle a large performance load (large number of users concurrently).</li> <li>A nice-to-have (not required) is voice-to-text capabilities in Chrome.</li> </ol>
<b>Technical Platforms</b> <i>(in use or desired to be used)</i>	<ol style="list-style-type: none"> <li>Suggested open source or free-to-use tools such as Botpress, DialogFlow, etc.</li> </ol>
<b>Data set to be used or collected</b>	<ol style="list-style-type: none"> <li><a href="https://hawaiiicovid19.com/">https://hawaiiicovid19.com/</a></li> <li><a href="https://health.hawaii.gov/coronavirusdisease2019/">https://health.hawaii.gov/coronavirusdisease2019/</a></li> </ol>
<b>Data set calculations or reporting needs</b>	<ol style="list-style-type: none"> <li>Top 5 Answers Provided by Date Range</li> <li>Top 5 Questions/Categories Not Answered / Being Referred to Agency by Date Range</li> </ol>
<b>Solution Road Map</b>	
<b>Basic Flow</b> <i>(steps of user action/system response)</i>	<ol style="list-style-type: none"> <li>User opens chatbot with web-based link.</li> <li>User types a question.</li> <li>User receives a response (valid answer or redirects) from the chatbot.</li> <li>Chatbot asks user if there is another question.</li> <li>Repeat steps 2-4 until no further question.</li> <li>Chatbot thanks user and disconnects chat.</li> </ol>
<b>Goal of Solution</b>	<ol style="list-style-type: none"> <li>Provide easy access to COVID-19 information to users via a conversational interface.</li> </ol>
<b>Business Value</b> <i>(potential financial or time savings)</i>	<ol style="list-style-type: none"> <li>Reduce questions fielded by agency and Aloha United Way staff.</li> <li>Saves users time from searching for COVID-19 information on various websites.</li> <li>Provide accurate COVID-19 information to users.</li> </ol>
<b>Success Scenario</b> <i>(how you know a solution is working)</i>	<ol style="list-style-type: none"> <li>Reduction in calls to call center.</li> <li>Users are satisfied with the chatbot responses.</li> </ol>
<b>To be completed by the HACC Planning Committee</b>	
<b>Community/Industry Data Available</b>	
<b>Potential Community/Industry Co-Sponsors</b>	