

2022

Hawai'i Annual Code Challenge (HACC)

Challenge Title	Online Data Visualization
Department / Organization	NIC Hawaii
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The Challenge	
Describe situation to be solved	Agencies gather data through everyday operations. Some of this data is available online via https://opendata.hawaii.gov . Often agencies need to present and explain data to other agencies, the legislature, and the public. There's a need for easily turning data into visualizations and at no cost.
Preconditions <i>(How does it work now)</i>	Currently, agency staff uses standalone software, such as Excel or PowerPoint to generate data visualization. They may also use online tools that are paid services. To collaborate on a visualization, the file is shared in its original authoring format. To publish the visualization, someone manually exports as an image so it can be sent by email or uploaded to a site.
Assumptions/Issues <i>(list any conditions that could impact the solution)</i>	The solution should be able to: <ol style="list-style-type: none">1. Use https://opendata.hawaii.gov as the main source of data to extract2. Output a data viz as a dynamic online graphic with a unique or persistent URL3. Output a chart/graph as a dynamic downloadable image4. If applicable/available, output should display reasonably well on mobile devices
Current Approach <i>(how is situation currently being handled)</i>	In addition to standalone software, such as Excel or PowerPoint, some agency staff may use online tools such as https://www.datawrapper.de/ however, there may be a cost for useful features and the output may not be in a dynamic format.
Users <i>(Who would use the application - employees or constituents or both? How many users would there be?)</i>	<ol style="list-style-type: none">1. State Agency's staff2. Potentially other vendors who work with State/City/County Agencies

Business Rules	<ul style="list-style-type: none"> • Accessible online
Special Requirements	NA
Technical Platforms <i>(in use or desired to be used)</i>	Web based
Data set to be used or collected	<ul style="list-style-type: none"> • Datasets/data contained within https://opendata.hawaii.gov/dataset
Data set calculations or reporting needs	1. General usage
Solution Road Map	
Basic Flow <i>(steps of user action/system response)</i>	<ol style="list-style-type: none"> 1. User opens site and is presented with options to link data from https://opendata.hawaii.gov/dataset 2. User can select the type of dynamic data visualization to display from the specific dataset selected above (e.g., bar chart, donut, etc.) 3. User can see the dynamic data visualization and can set options for labels (location, with line pointers, etc.), colors, etc. 4. Data viz can be published, and user can then copy a URL. 5. Data viz can also potentially be downloaded as an image file (e.g., JPG, PNG, PDF). 6. User can jump back to any step and edit the data source or data viz options.
Goal of Solution	<ul style="list-style-type: none"> • Provide an online tool to streamline the process of displaying data from https://opendata.hawaii.gov/dataset by providing dynamic data visualizations for users of the Opendata site
Business Value <i>(potential financial or time savings)</i>	<ul style="list-style-type: none"> • Time savings for agency staff who do data reporting and use of a secure and no-cost tool • Better understanding of data by other agencies, the legislature, and the public
Success Scenario <i>(how you know a solution is working)</i>	<ul style="list-style-type: none"> • Gather user feedback from various agencies/users of the system

To be completed by the HACC Planning Committee

Community/Industry Data Available	
Potential Community/Industry Co- Sponsors	