# **USING A RETOOL APPLICATION AS A VMS FOR** NONPROFIT **ORGANIZATIONS: A GUIDELINE**

**NOVEMBER 2021** 

The purpose of this manual is to illustrate the use of the inhouse VMS developed by our team. This manual will be most useful for those who need to obtain information of the VMS dashboard and use that data to generate reports and other documents. However, a small portion of this manual will be dedicated to the construction of the tool to ensure that the user could make an addition if needed, but this is not the focus of this document as the tool has been built to satisfy the needs of ENLACE specifically.

This tool was made to fit the specifications from ENLACE, a governmental nonprofit operating in the Caño Martín Area in Puerto Rico. The dashboard displays analytics based on data collected from volunteers. The volunteers fill out a google form, suppling information such as their name, the project the worked on, what they did for the day, and their hours. Other data is collected as well such as their email, the date of work and any comments they would like to leave. This information is directly input into a spreadsheet that serves the information to the dashboard. Before the data is included in the analytics a manager must validate the information. This manual will describe the validation process.

Retool is a powerful tool that utilizes JavaScript, SQL, and other technologies to create an application. Retool provides a resource to learn how to use the software properly. This resource is called Retool University it can be found, along with other resources, in the external resource chapter.

#### TABLE OF CONTENTS

| COMPONENTS                        | 3  |
|-----------------------------------|----|
| TOTAL VOLUNTEER                   | 3  |
| VOLUNTEER WITH MOST HOURS         | 3  |
|                                   | 2  |
| VOLUNITEER DATA (4 DARTS)         | Δ  |
| PART 1 VEAR PICKER                | 4  |
| PART 2 VALID ENTRIES              | Δ  |
| PART 3 ALL ENTRIES                | 5  |
| PART 4 DATABASE BUTTON            | 5  |
| GOAL                              | 6  |
| PROGRESS TO GOAL                  | 6  |
| PROJECTS                          | 6  |
| GRAPHS                            | 7  |
| Hours Per Project                 | 7  |
| VOLUNTEERS PER PROJECT            | 7  |
| QUANTIFICATION OF VOLUNTEER TASKS | 8  |
| HOURS PER PROJECT PER TASK        | 8  |
| VOLUNTEERS PER MONTH              | 9  |
| HOURS PER MONTH                   | 9  |
| ADDING A COMPONENT                | 10 |
| Adding user to Edit group         | 10 |
| Adding a text field               | 11 |
| EXTERNAL RESOURCES                | 14 |

# Components

## **Total Volunteer**

This component makes it easy to identify the number of validated volunteers.

Total de voluntarios

19

## Volunteer with Most Hours

This component shows the Volunteer with the most hours volunteered across all projects.

Voluntario con la mayoría de las horas

**Kush Shah** 

## Number of volunteers that require

## validation

This component shows the number of entries that have not been validated by an admin. (See component \*\*\* for validation steps)



# Volunteer Data (4 parts)

Part 1 Year Picker

This component controls the entire dashboard. The selected data acts as a filter for all the components and graphs to only show data that is from the selected date.

| Entradas validadas             | Todas las entradas |                             |                  |                       |                         |
|--------------------------------|--------------------|-----------------------------|------------------|-----------------------|-------------------------|
| Fecha en la que se             | Nombre/Full name   | Correo Electrónico/Email ad | Proyecto/Project | Tareas/Tasks          | Horas/Hours             |
| 11/16/2020                     | Kush Shah          | kshah2@wpi.edu              | Proyecto 3       | Construcción          | 15                      |
| 11/16/2021                     | Kush Shah          | kshah2@wpi.edu              | Proyecto 1       | Apoyo legal /Legal …  | 12                      |
| 1/26/2021                      | Maria              | Sai@notamail.com            | Proyecto 1       | Huertos comunitar …   | 5                       |
| 11/3/2021                      | Andrea             | Example@hotmail.com         | Proyecto 1       | Trabajo social/ Soc … | 18                      |
| 12/8/2021                      | Hanna              | IDK@lolgmail.com            | Proyecto 3       | Mercado Agroarte: …   | 14                      |
| 3/31/2021                      | Moshu              | mkadas@hotmal.com           | Proyecto 1       | Otro/ Other           | 5                       |
| 5/10/2021                      | Gabriel Tamayo     | tamayo.gabriel.2001@ç …     | Proyecto 3       | Diseño Gráfico        | 10                      |
| 8/19/2021                      | Nicolas            | AMD@gmail.com               | Proyecto 4       | Redacción técnica     | 5                       |
| RIAI2021<br>Showing 22 results | Angelica           | Evamole@amail.com           | Provecto 3       | ۵۵۵٬۰۰۰ اوموا مرموم   | 15<br>Reload Data 🞍 🍸 C |
|                                |                    |                             |                  |                       |                         |

Datos de los voluntarios

Año ALL

## Part 2 Valid Entries

This component shows the google form entries that have been validated. (See next for validation steps). This table can be filtered by clicking the button highlighted in blue. This will bring up the filter dialog. In the first box select the column name you want to filter by, in the second select the condition, and in the third type what you are looking for. For example, if I wanted to filter by a specific organization, it would look like: WHERE "Organización en la que trabajaste?/ Entity worked with" contains "ENLACE". This will show just the entries from Proyecto ENLACE del Caño Martín Peña. Note that multiple filters can be applied. The data can also be exported to an excel format for further manipulation.

| Base de datos | _ |               |
|---------------|---|---------------|
|               |   | Base de datos |

|                                      | Touas las entrauas |                             |                  |                       |             |  |  |
|--------------------------------------|--------------------|-----------------------------|------------------|-----------------------|-------------|--|--|
| Fecha en la que se                   | Nombre/Full name   | Correo Electrónico/Email ad | Proyecto/Project | Tareas/Tasks          | Horas/Hours |  |  |
| 11/16/2020                           | Kush Shah          | kshah2@wpi.edu              | Proyecto 3       | Construcción          | 15          |  |  |
| 11/16/2021                           | Kush Shah          | kshah2@wpi.edu              | Proyecto 1       | Apoyo legal /Legal    | 12          |  |  |
| 1/26/2021                            | Maria              | Sai@notamail.com            | Proyecto 1       | Huertos comunitar …   | 5           |  |  |
| 11/3/2021                            | Andrea             | Example@hotmail.com         | Proyecto 1       | Trabajo social/ Soc … | 18          |  |  |
| 12/8/2021                            | Hanna              | IDK@lolgmail.com            | Proyecto 3       | Mercado Agroarte: …   | 14          |  |  |
| 3/31/2021                            | Moshu              | mkadas@hotmal.com           | Proyecto 1       | Otro/ Other           | 5           |  |  |
| 5/10/2021                            | Gabriel Tamayo     | tamayo.gabriel.2001@c …     | Proyecto 3       | Diseño Gráfico        | 10          |  |  |
| 8/19/2021                            | Nicolas            | AMD@gmail.com               | Proyecto 4       | Redacción técnica     | 5           |  |  |
| R/A/2021                             | Angelica           | Evample@gmail.com           | Provecto 3       | Anovo legal /Legal    | 15          |  |  |
| Showing 22 results Reload Data ± 🍸 C |                    |                             |                  |                       |             |  |  |

## Part 3 All Entries

This component shows all the entries from the google form. The entries are marked with either a  $\times$ o denote that the entry has not been validated or with a  $\checkmark$ o show that it has been validated. The status can be changed by clicking either button in the change status column. Once the status has been changed all components will be updated to reflect the change.

| Part 4 Database Button   |    |
|--|----|
| This button will open the google sheet containing all the data | a. |
| (See Google Sheets as a VMS component)                         |    |

|   | Todas las  | entradas  |   |  |   |   |   |             |
|---|--|---|---|--|---|---|---|-------------|
| Change Status   | Valadacíon/Vali  | Correo Electr   | Nombre/Full   | Organización   | Proyecto/Proj.  | . Tareas/Tasks  | Horas/Hours   | Fecha en la |
|   | ×  | kshah2@v …  | kush june   | Fideicomis   | Proyecto 1  | Otro/ Other   | 12  | 6/12/202    |
|   | ×  | kshah2@v …  | Kush July   | Proyecto E …   | Proyecto 4  | Huertos co  | 34  | 7/12/202    |
|   | ×  | Newgaboljuly  | It better work  | Fideicomis   | Proyecto 2  | Diseño Gra …  | 5   | 7/7/2021    |
|   | ×  | dfjohnson   | February Dan  | Fideicomis   | Proyecto 2  | Redacción …   | 5   | 2/2/2021    |
|   | ×  | johnnymar …   | Useless   | Proyecto E   | Proyecto 1  | Entrenado   | 4   | 7/7/2021    |
|   | ×  | kshah2@v …  | kush sept   | Fideicomis   | Proyecto 2  | Huertos co  | 12  | 9/12/202    |
|   | ×  | Donald@g …  | Please work   | Fideicomis   | Proyecto 4  | Huertos co  | 6   | 4/8/2021    |
|   |  | kshah2@v …  | Kush Shah   | Proyecto E …   | Proyecto 1  | Apoyo leg:  | 12  | 11/16/20    |
|   | •  | kehah?@u  | Kuch Shah   | Drovocto F   | Provecto 3  | Construcción  | 15  | 11/16/20    |
| ntradas validadas   | Todas las  | entradas  | Datos de  | e los volunta  | rios  |   | Año ALL   |             |
| intradas validadas  | Todas las  | entradas  | Datos de  | e los volunta  | rios  |   | Año ALL   |             |
| intradas validadas<br>Fecha en la que se  | Todas las o  | entradas<br>re Co   | Datos de  | e los volunta<br>mail ad Proye   | rios  | ireas/Tasks   | Año ALL   |             |
| intradas validadas<br>Fecha en la que se<br>11/16/2020  | Todas las o<br>Nombre/Full nam<br>Kush Shah  | entradas<br>ne C.<br>kt   | Datos de<br>orreo Electrónico/Er<br>shah2@wpi.edu   | mail ad Proye  | cto/Project Ta<br>cto 3 C   | ireas/Tasks<br>onstrucción  | Año ALL<br>Horas/Hours<br>15  | -           |
| Fecha en la que se<br>11/16/2020<br>11/16/2021  | Todas las e<br>Nombre/Full nam<br>Kush Shah<br>Kush Shah   | entradas<br>le C.<br>ks   | Datos de<br>prreo Electrónico/Ei<br>shah2@wpi.edu   | e los volunta<br>mail ad Proye<br>Proye  | rios<br>cto/Project Ta<br>cto 3 C<br>cto 1 A  | areas/Tasks<br>onstrucción<br>poyo legal /Legal ···   | Año ALL<br>Horas/Hours<br>15<br>12  | -           |
| rtradas validadas<br>Fecha en la que se<br>11/16/2020<br>11/16/2021   | Todas las of<br>Nombre/Full nam<br>Kush Shah<br>Kush Shah<br>Maria   | entradas<br>te C.<br>ks<br>ks<br>Si   | Datos de<br>orreo Electrónico/El<br>shah2@wpi.edu<br>shah2@wpi.edu  | e los volunta<br>mail ad Proye<br>Proye<br>Proye   | rios Ta<br>cto/Project Ta<br>cto 3 C<br>cto 1 A<br>cto 1 H  | ureas/Tasks<br>onstrucción<br>poyo legal /Legal ··<br>uertos comunitar ··   | Año ALL<br>Horas/Hours<br>15<br>· 12<br>· 5   | -           |
| rtradas validadas<br>Fecha en la que se<br>11/16/2020<br>11/16/2021<br>1/26/2021<br>11/3/2021   | Todas las o<br>Nombre/Full nam<br>Kush Shah<br>Kush Shah<br>Maria<br>Andrea  | eentradas   | Datos de<br>orreo Electrónico/Er<br>shah2@wpi.edu<br>shah2@wpi.edu<br>al@notamail.com<br>kample@hotmail.com                                 | e los volunta<br>mail ad Proye<br>Proye<br>Proye<br>om Proye   | cto/Project Tri<br>cto 3 C<br>cto 1 A<br>cto 1 H<br>cto 1 Tri   | areas/Tasks<br>onstrucción<br>poyo legal /Legal ···<br>uertos comunitar ···<br>rabajo social/ Soc ···   | Año         ALL           Horas/Hours         15           12         5           18         18   |             |
| Fecha en la que se<br>11/16/2020<br>11/16/2021<br>1/26/2021<br>11/3/2021<br>12/8/2021   | Todas las of       Nombre/Full nam       Kush Shah       Kush Shah       Maria       Andrea       Hanna  | entradas<br>te C.<br>ka<br>ka<br>S.<br>S.<br>E.<br>E.   | Datos de<br>orreo Electrónico/Er<br>ahah2@wpi.edu<br>ai@notamail.com<br>kample@hotmail.co   | mail ad Proye<br>Proye<br>Proye<br>Proye<br>Proye<br>Proye<br>Proye                                      | cto/Project Ta<br>cto 3 C<br>cto 1 A<br>cto 1 H<br>cto 1 Tr<br>cto 3 M  | ireas/Tasks<br>onstrucción<br>poyo legal /Legal **<br>uertos comunitar **<br>rabajo social/ Soc **<br>ercado Agroarte: **   | Año         ALL           Horas/Hours         1           15         12           •         5           •         18           •         14   | -           |
| ntradas validadas<br>Fecha en la que se<br>11/16/2020<br>11/16/2021<br>1/26/2021<br>11/3/2021<br>3/31/2021  | Todas las of<br>Nombre/Full name<br>Kush Shah<br>Kush Shah<br>Maria<br>Andrea<br>Hanna<br>Moshu  | entradas<br>e C.<br>ks<br>ks<br>Si<br>E<br>IC   | Datos de<br>orreo Electrónico/Er<br>shah2@wpi.edu<br>al@notamail.com<br>skalas@hotmail.com  | a los volunta<br>nail ad Proye<br>Proye<br>Proye<br>pom Proye<br>Proye<br>proye                          | rtios<br>cto/Project Tra<br>cto 3 C<br>cto 1 A<br>cto 1 H<br>cto 1 Tra<br>cto 3 M<br>cto 1 0  | areas/Tasks<br>onstrucción<br>poyo legal /Legal<br>uertos comunitar<br>abajo social/ Soc<br>ercado Agroarte:<br>tro/ Other  | Año         ALL           Horas/Hours         1           15         12           ·         5           ·         18           ·         14           ·         5   |             |
| Intradas validadas           Fecha en la que se           11/16/2020           11/16/2021           1/26/2021           12/8/2021           3/31/2021           5/10/2021 | Todas las of           Nombre/Full nam           Kush Shah           Kush Shah           Maria           Andrea           Hanna           Moshu           Gabriel Tamayo | entradas<br>ee C.<br>ks<br>ks<br>S.<br>S.<br>S.<br>S.<br>S.<br>S.<br>S.<br>S.<br>S.<br>S.<br>S.<br>S.<br>S. | Datos de<br>orreo Electrónico/Er<br>ahah2@wpi.edu<br>al@notamail.com<br>ka@lolgmail.com<br>kadas@hotmal.co<br>mayo.gabriel.200              | mail ad Proye<br>mail ad Proye<br>Proye<br>Proye<br>proye<br>proye<br>proye<br>proye<br>proye            | cto/Project Tra<br>cto 3 C<br>cto 1 A<br>cto 1 H<br>cto 1 Tr<br>cto 3 M<br>cto 1 0<br>cto 3 0   | ireas/Tasks onstrucción onstrucción onstrucción on trucción on tructos comunitar or abajo social/ Soc or abajo social/ Soc or trodo Agroarte: or trodo Other on trodo Cher on tradicio Cher on tradici Cher on tradicio Cher on tradicio Cher on tradicio Cher | Año         All           Horas/Hours         1           15         12           •         5           •         14           •         10   | -           |
| Intradas validadas<br>Fecha en la que se<br>11/16/2020<br>11/16/2021<br>1/26/2021<br>11/3/2021<br>3/31/2021<br>5/10/2021<br>8/19/2021                                     | Todas las a       Nombre/Full nam       Kush Shah       Kush Shah       Maria       Andrea       Hanna       Moshu       Sabriel Tamayo       Nicolas                    | entradas  | Datos de<br>arreo Electrónico/Er<br>ahah2@wpi.edu<br>ahah2@wpi.edu<br>al@notamail.com<br>K@lolgmail.com<br>mayo.gabriel.200<br>MD@gmail.com | a los volunta<br>nail ad Proye<br>Proye<br>Proye<br>Proye<br>Proye<br>Proye<br>n Proye<br>Proye<br>Proye | rtios<br>teto/Project Tra<br>teto 3 C<br>teto 1 A<br>teto 1 A<br>teto 1 Tra<br>teto 1 A<br>teto 1 A<br>teto 1 A<br>teto 1 A<br>teto 1 A<br>teto 3 A<br>teto 1 A<br>teto 3 A<br>teto 1 A<br>teto 1 A<br>teto 3 A<br>teto 1 A<br>teto 3 A<br>teto 1 A<br>teto 3 A<br>teto 1 A<br>teto 1 A<br>teto 3 A<br>teto 1 A<br>teto 1 A<br>teto 3 A<br>teto 1 A<br>teto 3 A<br>teto 3 A<br>teto 4 A | areas/Tasks onstrucción onstrucción onstrucción on tructión on tructión on tructión on tructión on tructión contructión on tructión of tructión tructión tructión tructión tructión tructión tructión of tructión | Año         ALL           Horas/Hours         1           15         12           ·         5           ·         18           ·         14           ·         5           ·         5           ·         5 | •           |

#### Goal

This component simply displays an amount of money set in the google sheets (see Google Sheets as a VMS component).



## Progress to Goal

This component shows the progress made towards the goal. (This manual will define progress towards the goal later on)



## Projects

This component shows a table of the projects. This data is from the google sheets (see Google Sheets as a VMS component). The columns in this table are

- 1. Project name
- 2. Person in charge
- 3. Contact
- 4. Project Description

| Proyectos Actuales |   |                                   |                      |   |   |     |  |
|--------------------|---|-----------------------------------|----------------------|---|---|-----|--|
| Proyecto/Project   | P | Persona a cargo/ Person in charge | Contacto / Contact   | Descripción del proyecto/project description    |   |     |  |
| Proyecto 1         | к | Kush Shah                         | kshah2@wpi.edu       | The goal of this project is to finish Project 1 |   |     |  |
| Proyecto 2         | D | Danny Johnson                     | dfjohnson@wpi.edu    | The goal of this project is to finish Project 2 |   |     |  |
| Proyecto 3         | J | Julie Lee                         | jblee2@wpl.edu       | The goal of this project is to finish Project 3 |   |     |  |
| Proyecto 4         | G | Gabriel Tamayo                    | gtamayouribe@wpi.edu | The goal of this project is to finish Project 4 |   |     |  |
| Proyecto 5         | н | Hannah Jayne                      | hdjayne@wpi.edu      | The goal of this project is to finish Project 5 |   |     |  |
|                    |   |                                   |                      |   |   |     |  |
| Showing 1-5 of 5   |   | < 1                               | of 1 >               | F   | - | T C |  |

# Graphs

## Hours Per Project

This graph shows the number of hours dedicated to each project. The button at the bottom links to a google drive folder containing reports containing summaries per project (see Google Sheets as a VMS component)



# Volunteers Per Project

This graph shows the distribution of volunteers to projects.



## Quantification of Volunteer Tasks

Using data from the Puerto Rican Department of Labor to assign a dollar amount to different volunteer tasks; this graph shows the total monetary value associated with the cumulative hours per task. The grand total is used in the progress to goal component.



## Hours per Project per Task

This graph shows more detail than the Hours per project graph by dividing the columns by task.



## Volunteers per Month

This graph along with the next show a breakdown per month. This graph shows the number of volunteers per month across all projects.



## Hours per Month

This graph along with the prior show a breakdown per month. This graph shows the number of volunteer hours per month across all projects.



# Adding a component

In order to modify the application, you must have edit access.

#### Adding user to Edit group

To add someone to the editor group you must be an administrator. On the user page select the user you want to give edit access too and click the three dots.



This will bring up the user details page. Here you can select editor to give the user edit access.



## Adding a text field

Once you have edit access you will be able to see the editor view.

There are a few different sections here.

- 1) Main editor
- 2) Component Pane
- 3) Query Pane

The Main Editor shows what the app will look like, and this is where you will arrange all the components.



The Component Pane is where you can find all the possible components.



ENLACE Volunteer Dashbo.

The Query Pane is how the application gets all the data from the google sheets. DO NOT EDIT THE QUERY PANE UNLESS YOU ARE ABSOLUTLY SURE YOU WANT TO. Editing the query pane can lead to the entire application breaking. However, this is the "brains" of the application. It is a little complicated to learn how to use so we won't explain it here but there is plenty of <u>documentation</u> on how to use it provided by retool in extreme detail. Also, you can always contact support for assistance.

To add a text component, you can search for text in the Component Pane. Drag it from the Component Pane to the Main Editor.



Production Staging

Ejemplo de tablero de voluntarios

👋 Bienvenido, Kush

All queries completed

Preview ~

Once the text component is in the editor you will be able to change the value. You can put whatever you want in this field. You can also select between Markdown formatting and plain text. Markdown allows for more customization such as font size. A beginner's guide to markdown can be found <u>here</u>. With the input of "# Hi there" The text now displays "Hi there" in large font. ALC 2 totation that

Image: Comparison that

</tabl

# External Resources

These resources are helpful for anyone wanting to dive deeper into retool. Retool allows for many different types of data to be displayed but also different ways to manipulate data.

| General retool documentation      | Retool University   |
|-----------------------------------|---------------------|
| Retool query documentation        | Markdown Basics     |
| How to use JavaScript with Retool | JavaScript tutorial |
| How to use SQL in retool          | SQL tutorial        |

