

TEAM ROCKET

**COTSEYE:
A CROWDMAPPING SYSTEM
FOR THE MONITORING REPORT
OF THE CROWN-OF-THORNS STARFISH
(*Acanthaster planci*) IN SARANGANI BAY**

Quije | Cañete | Dodog

BACKGROUND



This section introduces the background and problem of the project found by the proponents. The proceeding sections will discuss the objectives, scope and limitations, and significance of the project.

BACKGROUND OF THE PROJECT

Crown-Of-Thorns Starfish (COTS)

is a species considered a significant threat to coral reefs.



BACKGROUND OF THE PROJECT

Such had caused population outbreaks for a long time that led to coral reef losses in the Indo-Pacific region.

- The frequency and intensity of the COTS outbreak increased in the current times due to global warming.

BACKGROUND OF THE PROJECT

In the Philippines,

the COTS outbreak was recorded recent years ago at Apo Reef and other places such as Glan in Sarangani Bay.



STATEMENT OF THE PROBLEM

The SBPS–PAMB

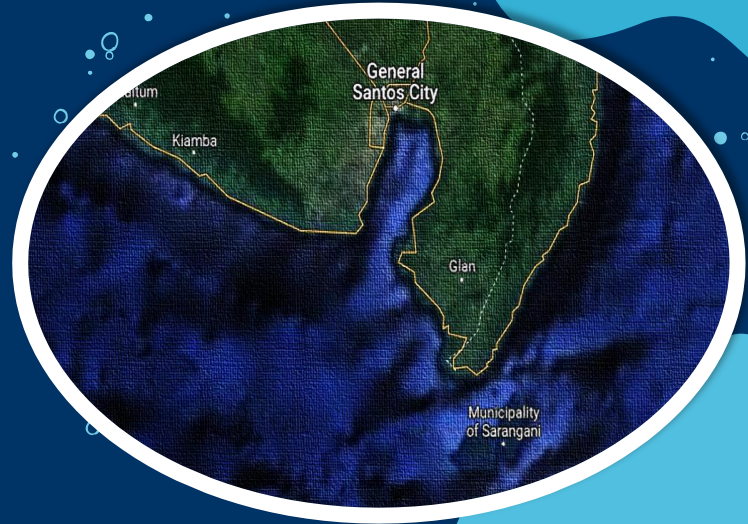
recorded that the COTS caused an outbreak in Sarangani Bay earlier in 2007 and 2010.



STATEMENT OF THE PROBLEM

36 out of 68

of barangays near the coast in Sarangani are still undergoing COTS outbreak, with marine protected areas located there heavily affected.



STATEMENT OF THE PROBLEM

SBPS-PAMB Officers

control the situation in Sarangani Bay currently by holding a community collection where rice is offered and gathering COTS every weekend.



STATEMENT OF THE PROBLEM

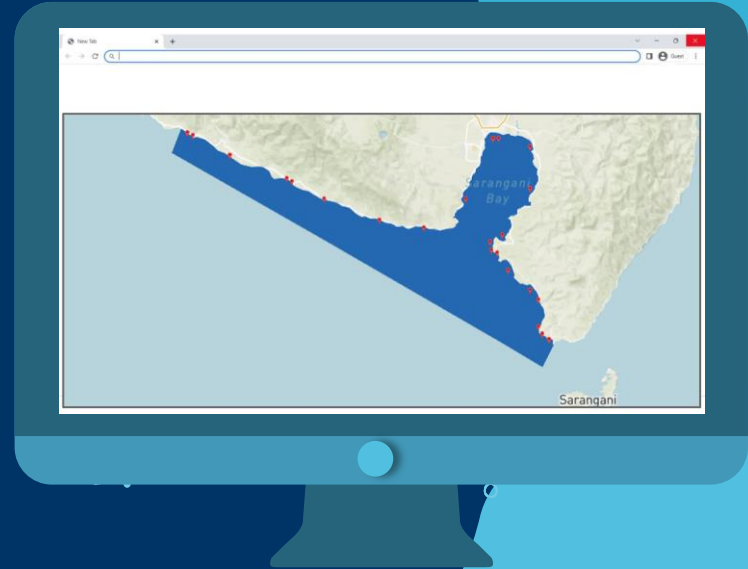
SBPS-PAMB Officers monitors the COTS outbreak in Sarangani Bay by mapping the information gathered. Yet, this is challenging.

There were difficulties in determining affected locations early, and the information still was stored in a spreadsheet.

STATEMENT OF THE PROBLEM

In that case,

a web-based system is a must to collect and manage the information gathered regarding the COTS presence within Sarangani Bay.



GENERAL OBJECTIVES

To develop a crowdmapping system that will help collect and manage information about COTS presence in the waters of Sarangani Bay.



Specific Objectives

01

To create
the COTS infestation based on the gathered information from contributors, SBPS-PAMO, and other concerned citizens;

02

To develop
a feature that will allow the SBPS-PAMB Officers to verify the information before they are posted;

03

To enable
posting of announcements and other helpful information about COTS infestation and intervention programs;



Specific Objectives

04

To map out
a web-based system that will let the contributors report COTS presence in Sarangani Bay coastal areas;

05

To display
status of COTS infestation in coastal areas of Sarangani Bay based on the metrics laid out by SBPS-PAMB;

06

To generate
monitoring reports regarding the COTS infestation based on the information gathered from contributors.

SCOPE AND LIMITATIONS

The capstone project will be developed only for SBPS-PAMB.

Such will highlight the development of a crowdmapping system for the monitoring report of the COTS in Sarangani Bay.

The needed information and resources regarding COTS will only be provided by the SBPS-PAMO Officers.

INITIAL PROTOTYPE

The background is a deep navy blue. It is framed by light blue, wavy, organic borders on the top, bottom, and sides. Scattered throughout the navy blue area are numerous small white dots and circles of varying sizes, some of which are grouped together, resembling a starry night sky or a microscopic view.

CONTRIBUTOR'S REGISTER PAGE



11:11 AM 100%

cotseye.com

Register

username _____

first name _____

last name _____

phone number _____

email _____

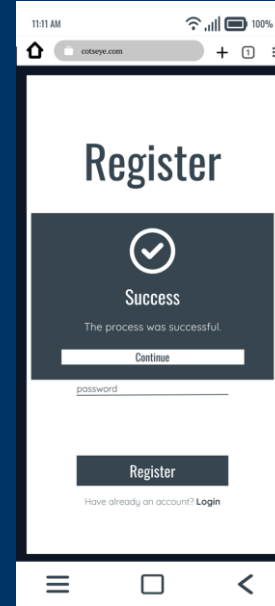
password _____

Register

Have already an account? [Login](#)

This is a mobile app interface for the 'Register' page. It features a white background with a dark blue header bar. The status bar at the top shows the time as 11:11 AM and 100% battery. The app bar includes a home icon, the URL 'cotseye.com', and standard mobile navigation icons. The main content area is titled 'Register' and contains input fields for username, first name, last name, phone number, email, and password. A dark blue 'Register' button is positioned below the fields, and a link to 'Login' is provided for users who already have an account. The bottom navigation bar is visible at the very bottom.


Register Landing Page



11:11 AM 100%

cotseye.com

Register



Success

The process was successful.

Continue

password _____

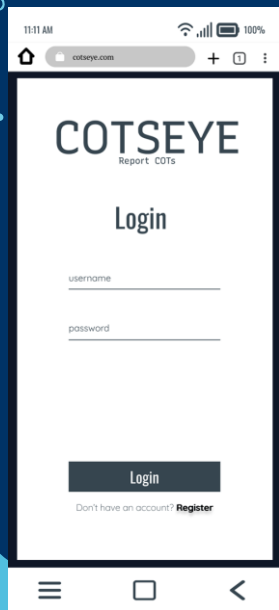
Register

Have already an account? [Login](#)

This is a mobile app interface for the 'Register' page, showing a success message. It features a white background with a dark blue header bar. The status bar at the top shows the time as 11:11 AM and 100% battery. The app bar includes a home icon, the URL 'cotseye.com', and standard mobile navigation icons. The main content area is titled 'Register' and displays a success message with a checkmark icon, the text 'Success', and 'The process was successful.' Below the message is a dark blue 'Continue' button. A password input field is visible below the message, and a 'Register' button is at the bottom. A link to 'Login' is provided for users who already have an account. The bottom navigation bar is visible at the very bottom.

Register Page Message

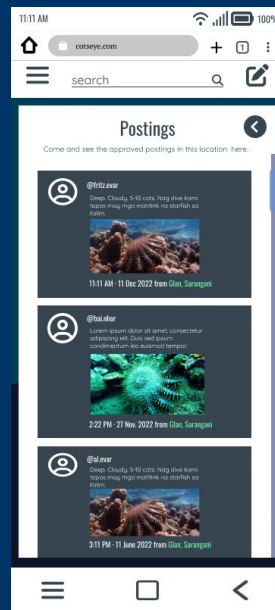
CONTRIBUTOR'S MAIN PAGE



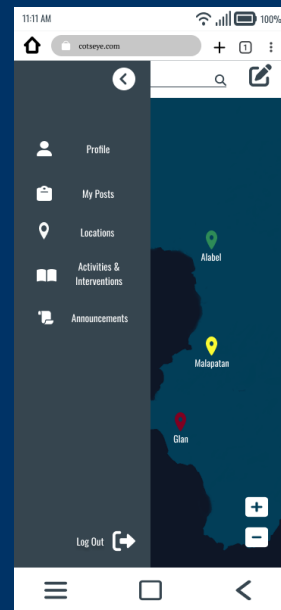
Login Page



Home Page

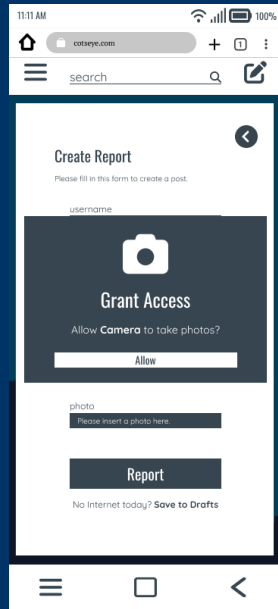


Postings Page

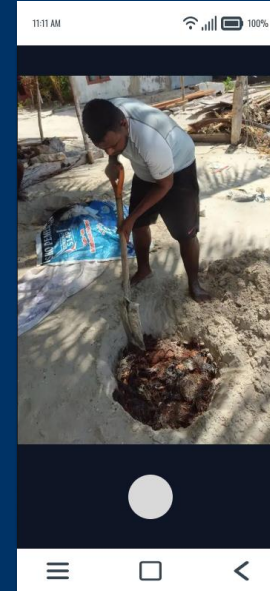


Main Menu Page

CONTRIBUTOR'S CAMERA PAGE

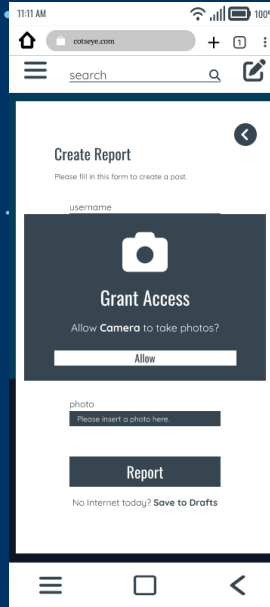


Camera Grant Access Page



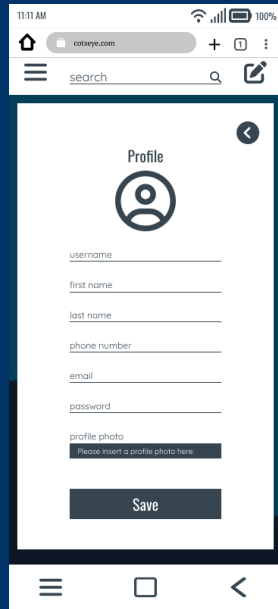
Camera Landing Page

CONTRIBUTOR'S CREATE REPORT PAGE



Create Report Page

CONTRIBUTOR'S PROFILE PAGE



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cotseye.com

search

Profile

username

first name

last name

phone number

email

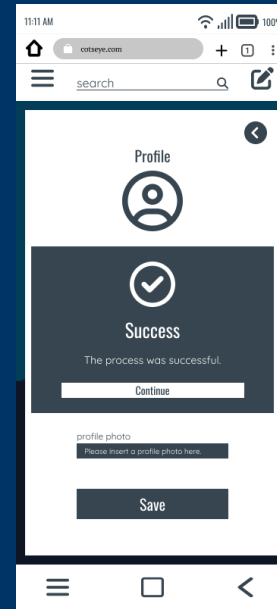
password

profile photo

Please insert a profile photo here.

Save

Profile Edit Page



11:11 AM 100%

cotseye.com

search

Profile

Success

The process was successful.

Continue

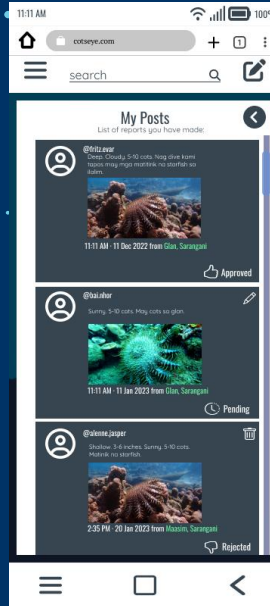
profile photo

Please insert a profile photo here.

Save

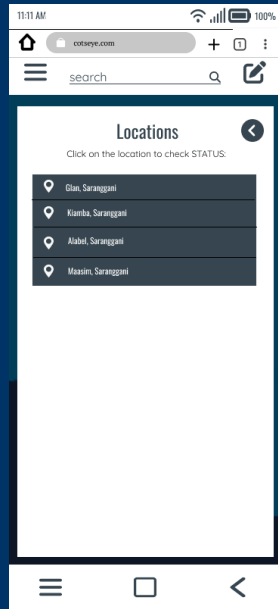
Profile Page Message

CONTRIBUTOR'S MY POSTS PAGE

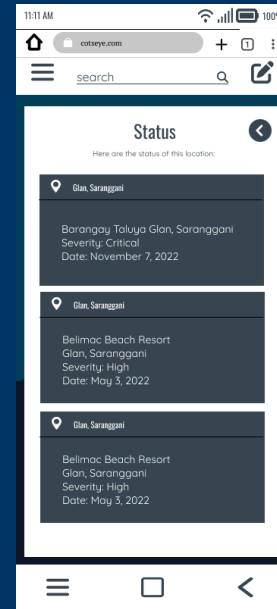


My Posts Landing Page

CONTRIBUTOR'S LOCATIONS PAGE

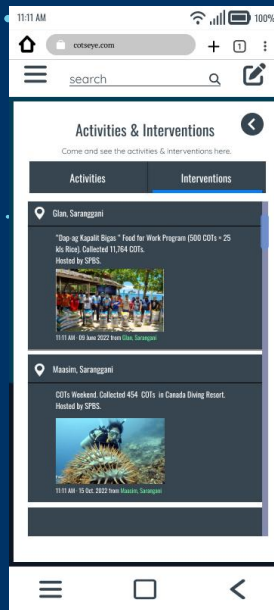


Locations Landing Page



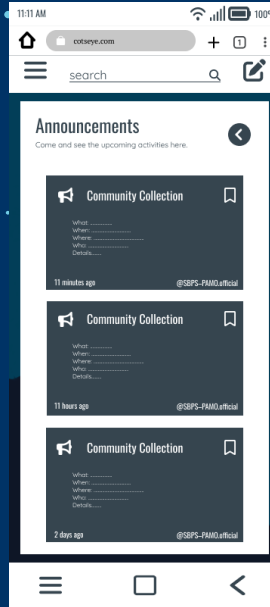
Status Page

CONTRIBUTOR'S ACTIVITIES & INTERVENTIONS PAGE



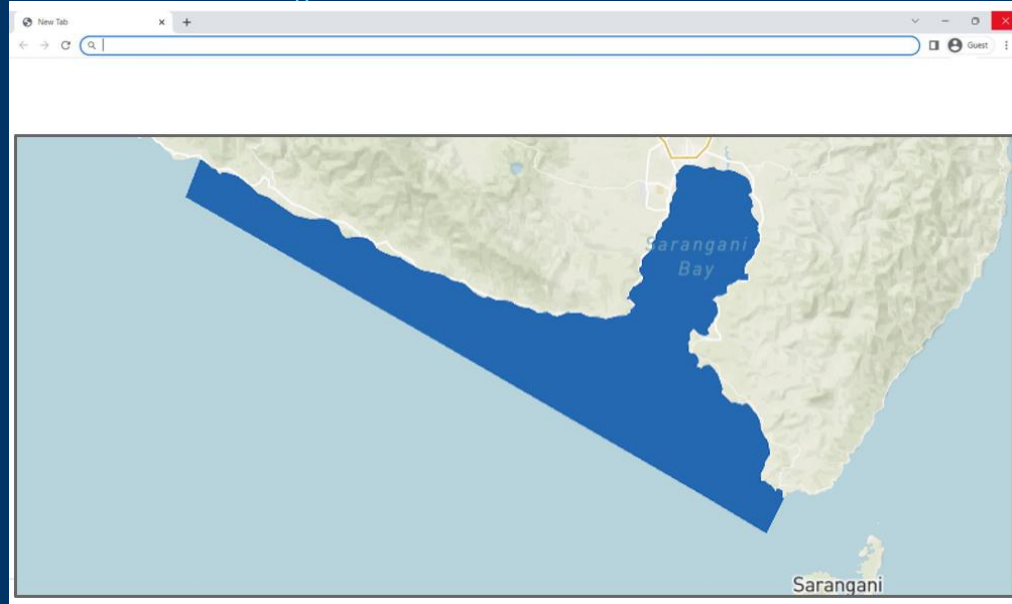
Activities & Interventions Page

CONTRIBUTOR'S ANNOUNCEMENTS PAGE



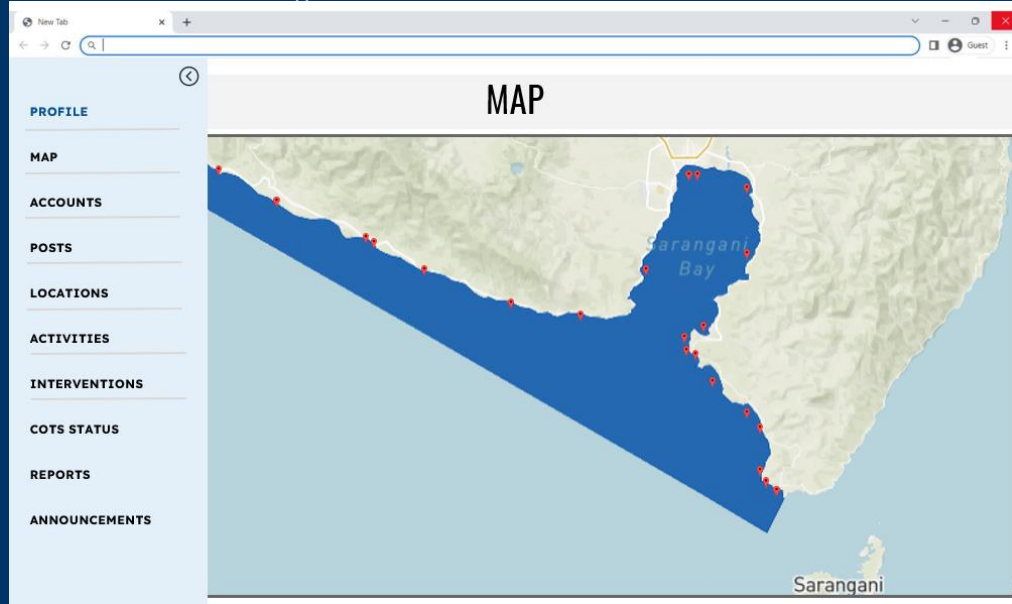
Announcements Page

ADMIN'S MAIN PAGE



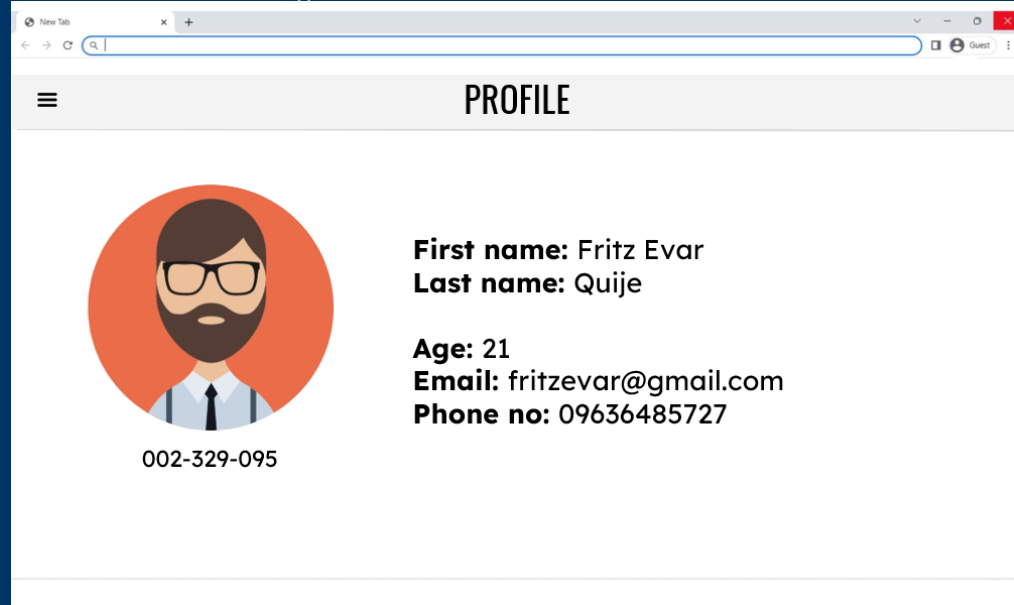
Home Page

ADMIN'S MAIN PAGE



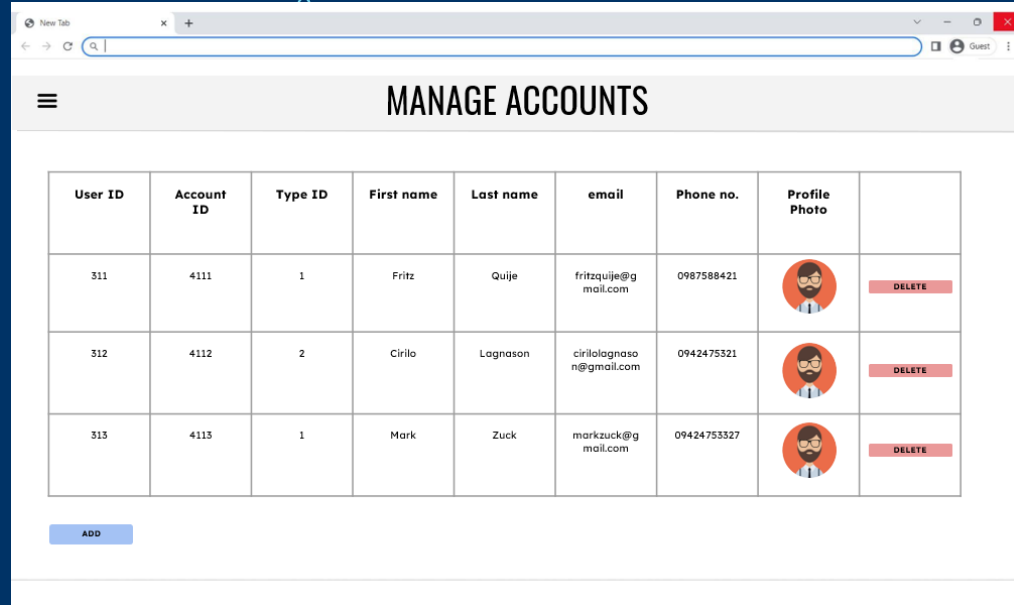
Main Menu Page




ADMIN'S PROFILE PAGE



Profile Landing Page

ADMIN'S MANAGE ACCOUNTS PAGE

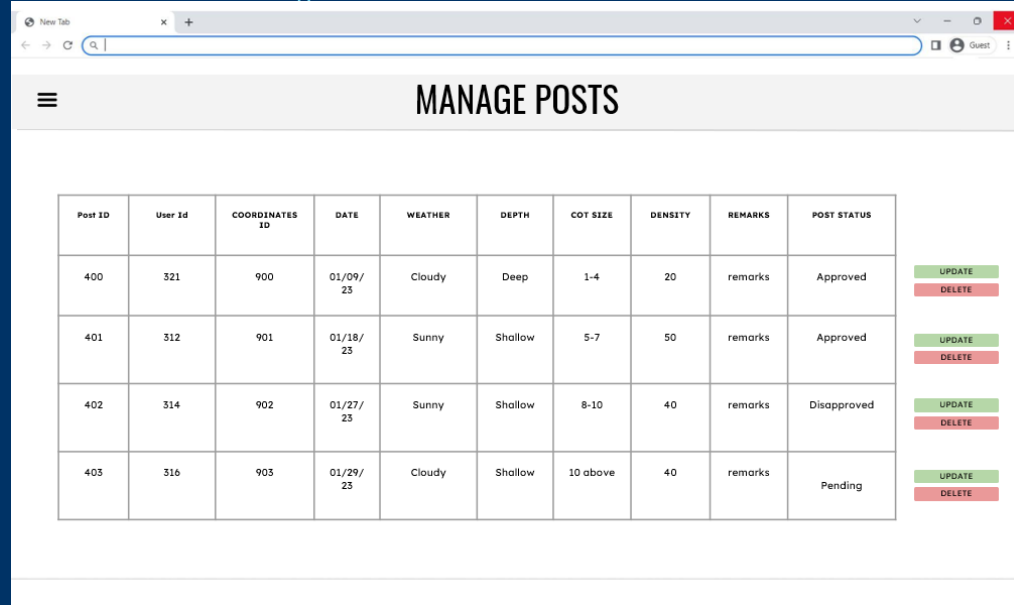


User ID	Account ID	Type ID	First name	Last name	email	Phone no.	Profile Photo	
311	4111	1	Fritz	Quije	fritzquije@gmail.com	0987588421		DELETE
312	4112	2	Cirilo	Lagnason	cirilolagnason@gmail.com	0942475321		DELETE
313	4113	1	Mark	Zuck	markzuck@gmail.com	0942475327		DELETE

ADD

Accounts Landing Page

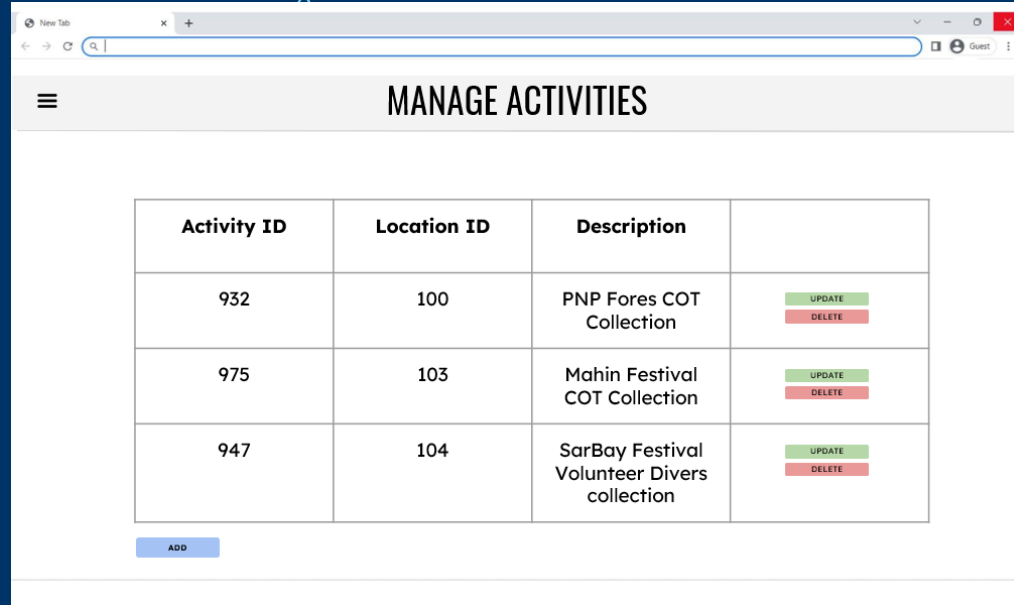
ADMIN'S MANAGE POSTS PAGE



Post ID	User Id	COORDINATES ID	DATE	WEATHER	DEPTH	COT SIZE	DENSITY	REMARKS	POST STATUS	UPDATE	DELETE
400	321	900	01/09/23	Cloudy	Deep	1-4	20	remarks	Approved	UPDATE	DELETE
401	312	901	01/18/23	Sunny	Shallow	5-7	50	remarks	Approved	UPDATE	DELETE
402	314	902	01/27/23	Sunny	Shallow	8-10	40	remarks	Disapproved	UPDATE	DELETE
403	316	903	01/29/23	Cloudy	Shallow	10 above	40	remarks	Pending	UPDATE	DELETE

Posts Landing Page

ADMIN'S MANAGE ACTIVITIES PAGE



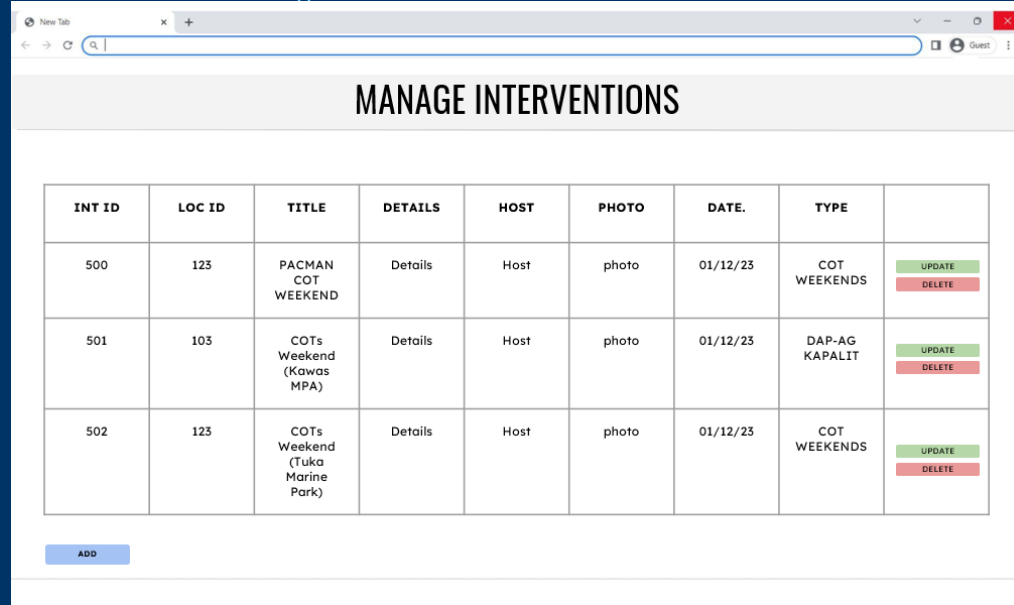
The screenshot shows a web browser window with a single tab titled 'New Tab'. The address bar is empty. The page has a header with a hamburger menu icon on the left and the title 'MANAGE ACTIVITIES' in the center. Below the header is a table with four columns: 'Activity ID', 'Location ID', 'Description', and an empty column. The table contains three rows of data. Each row has 'UPDATE' and 'DELETE' buttons in the empty column. Below the table is a blue 'ADD' button.

Activity ID	Location ID	Description	
932	100	PNP Fores COT Collection	<button>UPDATE</button> <button>DELETE</button>
975	103	Mahin Festival COT Collection	<button>UPDATE</button> <button>DELETE</button>
947	104	SarBay Festival Volunteer Divers collection	<button>UPDATE</button> <button>DELETE</button>

ADD

Activities Landing Page

ADMIN'S MANAGE INTERVENTIONS PAGE



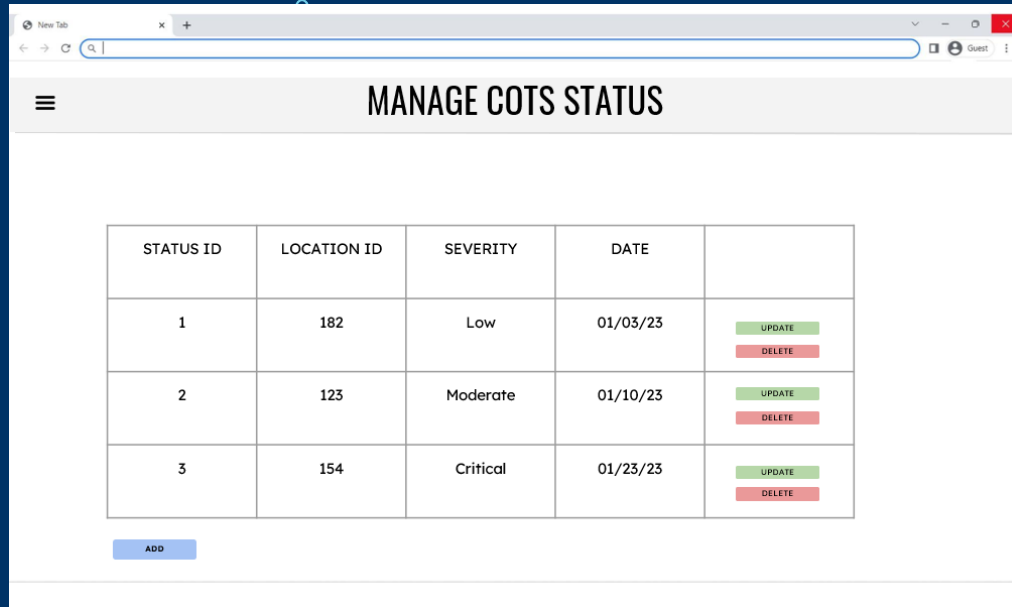
A screenshot of a web browser displaying the 'MANAGE INTERVENTIONS' page. The browser's address bar shows a search icon and the text 'Guest'. The page title is 'MANAGE INTERVENTIONS'. Below the title is a table with 9 columns: INT ID, LOC ID, TITLE, DETAILS, HOST, PHOTO, DATE, TYPE, and an empty column for actions. The table contains three rows of intervention data. Each row has 'UPDATE' and 'DELETE' buttons in the action column. Below the table is an 'ADD' button.

INT ID	LOC ID	TITLE	DETAILS	HOST	PHOTO	DATE	TYPE	
500	123	PACMAN COT WEEKEND	Details	Host	photo	01/12/23	COT WEEKENDS	UPDATE DELETE
501	103	COTs Weekend (Kawas MPA)	Details	Host	photo	01/12/23	DAP-AG KAPALIT	UPDATE DELETE
502	123	COTs Weekend (Tuka Marine Park)	Details	Host	photo	01/12/23	COT WEEKENDS	UPDATE DELETE

[ADD](#)

Interventions Landing Page

ADMIN'S MANAGE COTS STATUS PAGE



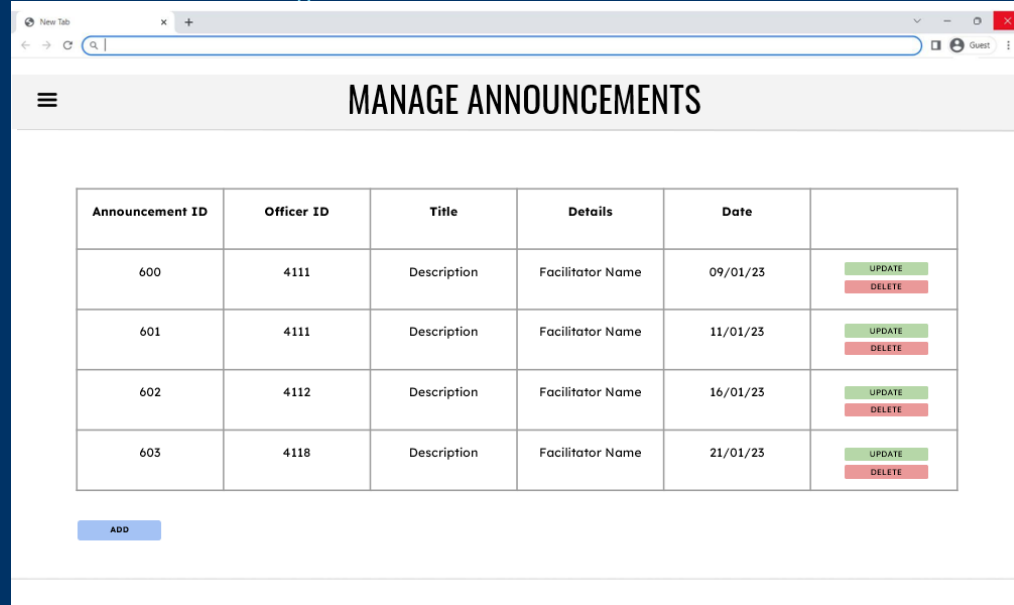
A screenshot of a web browser displaying the 'MANAGE COTS STATUS' page. The browser's address bar shows a search engine. The page has a light gray header with a hamburger menu icon on the left and the title 'MANAGE COTS STATUS' in the center. Below the header is a table with five columns: 'STATUS ID', 'LOCATION ID', 'SEVERITY', 'DATE', and an empty column for actions. The table contains three rows of data. Each row has a green 'UPDATE' button and a red 'DELETE' button in the action column. Below the table is a blue 'ADD' button.

STATUS ID	LOCATION ID	SEVERITY	DATE	
1	182	Low	01/03/23	UPDATE DELETE
2	123	Moderate	01/10/23	UPDATE DELETE
3	154	Critical	01/23/23	UPDATE DELETE

[ADD](#)

COTS Status Landing Page

ADMIN'S MANAGE ANNOUNCEMENTS PAGE



The screenshot shows a web browser window with a single tab titled 'New Tab'. The address bar is empty. The page has a light gray header with a hamburger menu icon on the left and the title 'MANAGE ANNOUNCEMENTS' in the center. Below the header is a white table with 6 columns: 'Announcement ID', 'Officer ID', 'Title', 'Details', 'Date', and an empty column for actions. The table contains 4 rows of data. Each row has a green 'UPDATE' button and a red 'DELETE' button in the action column. Below the table is a blue 'ADD' button.

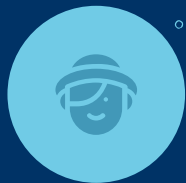
Announcement ID	Officer ID	Title	Details	Date	
600	4111	Description	Facilitator Name	09/01/23	<button>UPDATE</button> <button>DELETE</button>
601	4111	Description	Facilitator Name	11/01/23	<button>UPDATE</button> <button>DELETE</button>
602	4112	Description	Facilitator Name	16/01/23	<button>UPDATE</button> <button>DELETE</button>
603	4118	Description	Facilitator Name	21/01/23	<button>UPDATE</button> <button>DELETE</button>

ADD

Announcements Landing Page

SIGNIFICANCE OF THE PROJECT

the project will assist them to collect and manage information regarding the COTS presence in Sarangani Bay via web-based system.



SBPS-PAMB

the project will provide them with access to information regarding the COTS presence in Sarangani Bay via web-based system.



Community

SIGNIFICANCE OF THE PROJECT

the project will supply them with additional information in the fulfillment of their research and studies related to the COTS presence in Sarangani Bay.



Future Researchers

the project will guide them on their political declaration and judgment regarding the COTS outbreak in Sarangani Bay.



Policy Makers

The background is a dark blue field filled with numerous small white dots of varying sizes, resembling a starry night sky or a microscopic view. The edges of the image are framed by thick, wavy, light blue borders that create a sense of depth and movement.

UPDATES & PRELIMINARY RESULTS

UPDATES & PRELIMINARY RESULTS

Work on the capstone project is currently in progress. The proponents are currently working to implement the remarks and recommendations made by the panelists during the project's defense.

UPDATES & PRELIMINARY RESULTS

Currently, the proponents are using the Kanban Approach throughout the development of the system. Visual Studio Code, HTML, JavaScript, CSS, Python, PHP, MySQL, and Google Maps API will be used to program the web-based crowdmapping system.

UPDATES & PRELIMINARY RESULTS

The system will encourage the community to report COTS presence in Sarangani Bay coastal areas, view the map and the infestation status of each area, and explore activities, interventions, announcements, and guidelines made by the SBPS-PAMB Officers.