



Capstone Project 2

CMU-SE 451

User Interface Design Document

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Craft Village Pollution Monitor System

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PROJECT INFORMATION

Project acronym	CVPMS		
Project Title	Craft Village Pollution Monitor System		
Start Date	01/03/2023	End Date	15/05/2023
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1.0	18/09/2022	Create Document	Nguyen Thanh Trung	
1.1	05/10/2022	Update Document (Survey page)	Nguyen Thanh Trung	
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1.3	08/11/2022	Create survey system (Survey page, Homepage)	Nguyen Thanh Trung	
2.0	14/03/2023	Create Document	Nguyen Thanh Trung	
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2.2	13/04/2023	Update Document (Map, view survey, Edit layout, ...etc)	Nguyen Thanh Trung	

Approve Document: Sign in to approve document







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1. Introduction

1.1. Purpose

- This document helps to better understand the interface of the Comment Scraper Tool, detailed specification components and function of the system.
- With this document, the development team can understand detail the structure and composition to create a consistent and complete system.

1.2. Scope

- Overview of the stages and modules of the system.
- Create complete interfaces and describe them clearly.

2. List of User Interface

2.1. Local Authority

Table 1. *List of Local Authority User Interface*

User Interface ID	UI Name	Description
UI-01	Local Authority Home Page	This page to see statistics about craft villages
UI-02	Detail Declaration Page	This page displays detailed production information of the craft village
UI-03	Pollution Craft Village Map Data Page	This page displays a map of polluted craft villages and location information

2.2. Household

Table 2. *List of Household User Interface*

User Interface ID	UI Name	Description
UI-04	Survey Page	This page allows household heads to register their craft villages or register new craft villages if that craft village does not exist in the database

2.3.Admin

Table 3. List of Admin User Interface

User Interface ID	UI Name	Description
UI-05	Create New Local Authority Page	This page to create a new local authority account.

3. Describe the User Interface

3.1.Local Authority

3.1.1. Local Authority Home Page

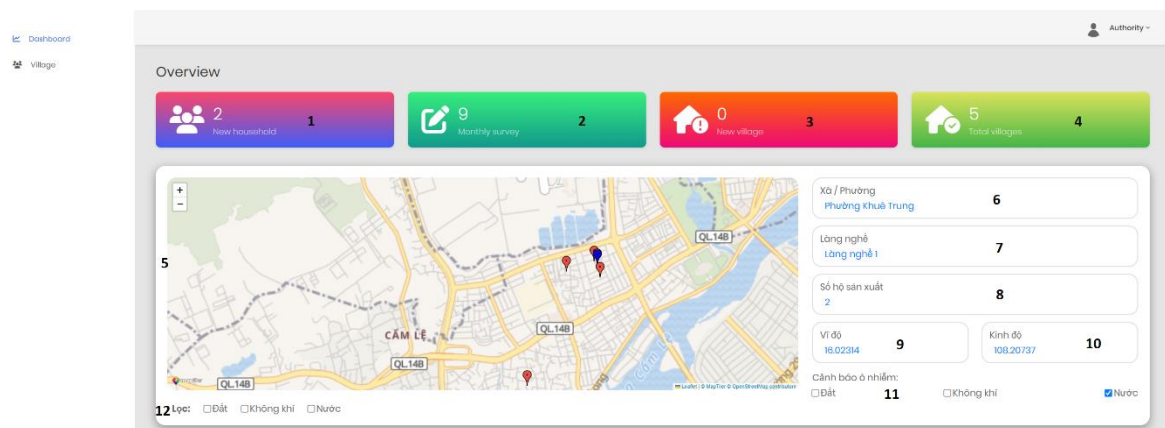


Figure 1. UI of Local Authority Home Page

Table 4. Elements of UI Local Authority Home Page

From	Condition	Control Type	Target	Notes
1	View	Lable	Display the number of new households	
2	View	Lable	Display the number of surveys	
3	View	Lable	Display the number of the new village	
4	View	Lable	Display the total village of the ward	
5	View	Map	Display the polluted craft villages	
6	View	Lable	Display ward address information	
7	View	Lable	Display name of craft village	

8	View	Lable	Display the number of households of village	
9	View	Lable	Display the latitude of village	
10	View	Lable	Display the longitude of village	
11	View	Check Box	Warning about that kind of pollution in craft villages	
12	Click	Check Box	Click to filter the type of contaminated craft village	

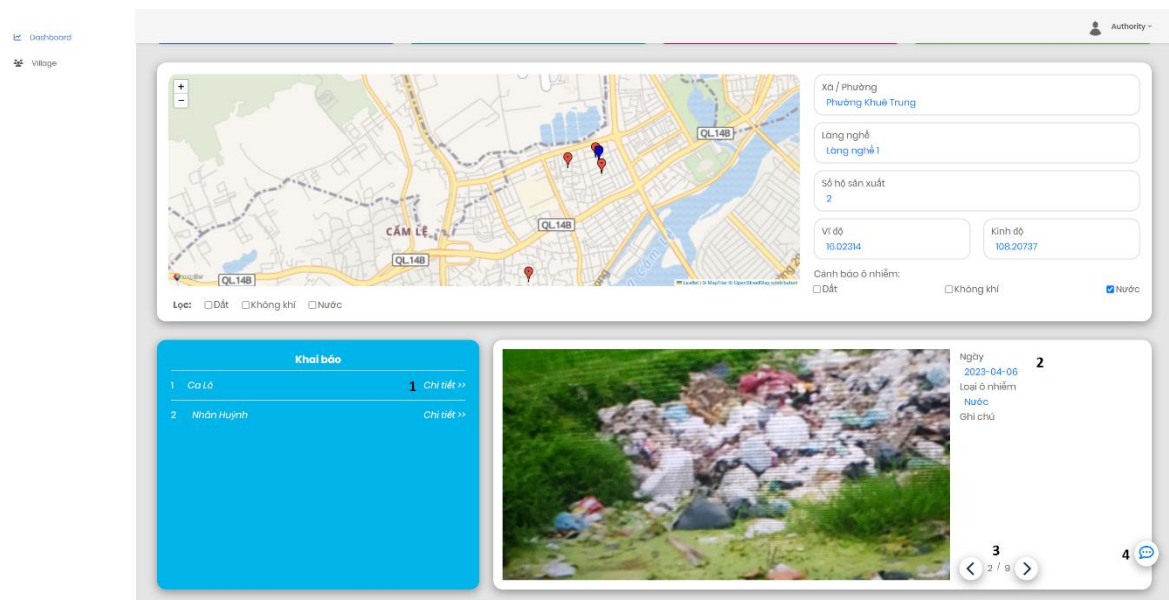


Figure 2. UI of Local Authority Home Page Below

Table 5. Elements of UI Local Authority Home Page Below

From	Condition	Control Type	Target	Notes
1	Click	Lable	Click to see detail information about the declaration	
2	View	Lable	Display general information about the declaration	
3	Click	Button	Click to see another declaration	
4	Click	Button	Click to report site errors	

3.1.2. Detail Declaration

Figure 3. UI of Detail Declaration

Figure 4. UI of Detail Declaration

Table 6. Elements of UI Detail Declaration

From	Condition	Control Type	Target	Notes
1	View	Lable	Display detailed information about the production of the craft village	
2	Click	Button	Click to close detailed information	

3.1.3. Pollution Craft Village Map Data Page

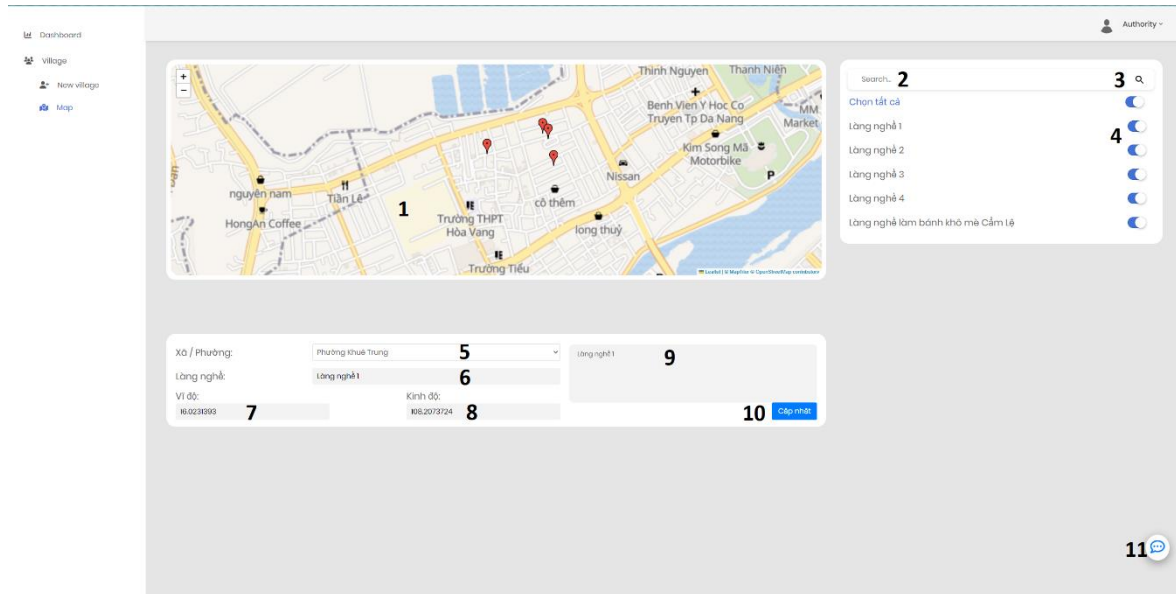


Figure 5. UI of Pollution Craft Village Map Data Page

Table 7. Elements of UI Pollution Craft Village Map Data Page

From	Condition	Control Type	Target	Notes
1	View	Map	Display the polluted craft villages	
2	Input	Textbox	Enter the name of craft village	
3	Click	Button	Click to view the location of craft village	
4	Click	Button	Click to display or not display the location of the craft village on the map	
5	Click	DropDownList	Click to select ward of village	
6	Input	Textbox	Enter the name of village	
7	Input	Textbox	Enter latitude	
8	Input	Textbox	Enter longitude	
9	View	Textbox	Display the name of village	
10	Click	Button	Click to update information about village	
11	Click	Button	Click to report site errors	

3.2. Household

3.2.1. Survey Page

Khởi báo
 Chỉnh sách

Household

Hộ sản xuất : Làng nghề I

Chọn tỉnh/thành phố

1

Chọn Quận/Huyện

2

Chọn Xã/Thường

3

Làng nghề

4

5

Làng nghề mới

Chọn tỉnh/thành phố

6

Chọn Quận/Huyện

7

Chọn Xã/Thường

8

Vị trí

9

Kinh độ

10

Tên làng nghề

Nhập tên làng nghề

11

Mô tả

12

13

Thông tin sản xuất

Lượng khí ga đã sử dụng (0000 m³)

15

5

Lượng chất thải rắn đã sử dụng (tấn)

16

10

Lượng than đã sử dụng (tấn)

17

3

Đốt cháy

18

3

Sử dụng dầu

19

Sử dụng khí ga

20

14

Figure 6. *UI of Survey Page*

Table 8. *Elements of UI Survey Page*

From	Condition	Control Type	Target	Notes
1	Click	DropDownList	Click to select province/city	
2	Click	DropDownList	Click to select district	
3	Click	DropDownList	Click to select ward	
4	Click	DropDownList	Click to select village	
5	Click	Button	Click to declare a new craft village	
6	Click	DropDownList	Click to select province/city	
7	Click	DropDownList	Click to select district	
8	Click	DropDownList	Click to select ward	
9	Input	Textbox	Enter the latitude	
10	Input	Textbox	Enter the longitude	
11	Input	Textbox	Enter the name of village	
12	Input	Textbox	Enter a description of the craft village	

13	Click	Button	Click to declare a new craft village	
14	Click	Button	Click to report site errors	
15	Input	Textbox	Enter amount of gas used	
16	Input	Textbox	Enter amount of solid waste used	
17	Input	Textbox	Enter amount of coal used	
18	Input	Textbox	Enter amount of combustion used	
19	Click	Radio Button	Click to declare whether to use oil or not	
20	Click	Radio Button	Click to declare whether to use gas or not	

The screenshot displays a survey form titled 'Household' with a sidebar on the left containing 'Khảo sát' and 'Chỉnh sửa'. The form is divided into several sections with numbered callouts (1-11) pointing to specific UI elements:

- 1**: Points to a checkbox labeled 'Xử lý chất thải rắn được thu gom' (Solid waste collection is handled).
- 2**: Points to a radio button labeled 'Tần suất thu gom rác?' (Waste collection frequency?).
- 3**: Points to a text input field labeled 'Tỷ lệ rác thải thực ăn thừa' (Ratio of food waste).
- 4**: Points to a radio button labeled 'Tỷ lệ được tái chế bởi cơ nhân' (Ratio of recycling by community).
- 5**: Points to a checkbox labeled 'Hình thức thu gom nước thải' (Wastewater collection method).
- 6**: Points to a text input field labeled 'Số người' (Number of people).
- 7**: Points to a text input field labeled 'Vật liệu mới' (New material).
- 8**: Points to a text input field labeled 'Loại hình sản xuất' (Production type).
- 9**: Points to a text input field labeled 'Lượng điện đã sử dụng (kWh)' (Electricity used (kWh)).
- 10**: Points to a button labeled 'Lưu' (Save).
- 11**: Points to a button labeled 'Khảo sát' (Survey).

Figure 7. UI of Survey Page

Table 9. Elements of UI Survey Page

From	Condition	Control Type	Target	Notes
1	Click	Check Box	Click to choose how to collect solid waste	
2	Click	Radio Button	Click to select solid waste collection frequency	
3	Input	Textbox	Click to rate of food waste	
4	Click	Radio Button	Click to select village	

5	Click	Check Box	Click to declare a new craft village	
6	Input	Textbox	Enter the longitude	
7	Input	Textbox	Enter the latitude	
8	Input	Textbox	Enter the name of village	
9	Input	Textbox	Enter a description of the craft village	
10	Click	Button	Click to refresh the information just filled	
11	Click	Button	Click to declare detail information	

3.3. Admin

3.3.1. Create New Local Authority Page

The screenshot shows a web browser window with the URL 'localhost:5000/admin-site/localauthority'. The page title is 'Local Authority'. The main content is a 'Create Account' form. The form has the following elements:

- Province/City (1): A dropdown menu.
- District (2): A dropdown menu.
- Organization Name (3): A text input field.
- Username (4): A text input field.
- Password (5): A text input field.
- Phone (6): A text input field.
- Email (7): A text input field.
- Create (8): A blue button at the bottom right.

Figure 8. UI of Create New Local Authority Page

Table 10. Elements of UI Create New Local Authority Page

From	Condition	Control Type	Target	Notes
1	Click	DropDownList	Click to select province/city	
2	Click	DropDownList	Click to select district	
3	Input	Textbox	Enter the name of organization	
4	Input	Textbox	Enter the email address	

5	Input	Textbox	Enter the phone number	
6	Click	Button	Click to create a new local authority	
7	Click	Check Box	Click to select the questions that the household is asked to answer	
8	Scroll	Scroll Bar	Scroll to select question	
9	Click	Button	Click to save the questionnaire	
10	Click	Button	Click to download dataset to train AI	