

Volume

1

CPE 0211.1-3

DATA STRUCTURES AND ALGORITHMS

Disaster Management Program Guide

DATA STRUCTURES AND ALGORITHMS

Disaster Management Program Guide

© Group 5
Cayco, Francis Mark M.
Mercurio, Miraiza Elisa V.
Perez, Kelvin D.
Soliven, Reynel N.
Villar, Helen Claire J.

Table of Contents

Chapter 1	1
Introduction.....	1
Opening the Program	1
Program Functions List.....	1
Selecting a Province/Island	2
Main Program Functions	1
[Function 1] Add Recipient.....	3
[Function 2] Next Recipient.....	3
[Function 3] View Recipients	3
[Function 4] Add Supply.....	4
[Function 5] Remove Supply.....	4
[Function 6] View Supplies	5
[Function 7] Location Finder	5
[Function 8] Change Location.....	7
[Function 9] Exit Program	7

Master the Disaster Management Program!

This is a comprehensive tutorial on how to use *Disaster Management Program* correctly and efficiently. By reading this manual you are expected to learn the ins and outs of our program, its basic uses, and basically how to use this program in needed situations.

Opening the Program

Upon opening the program, you are greeted and instructed to press a keyboard key of your choice:

[Function 1] Add Recipient - If you would like to add recipients to the queue

[Function 2] Next Recipient - Discards the current recipient in the queue and proceeds the next as to be received by the donations.

[Function 3] View Recipients - Simply lists the list of recipients (Including their First Name, Last Name, Age, and their number inline). Note that the first in line (highlighted in green) is the current recipient.

[Function 4] Add Supply - This allows the user to add a supply of their choice, the total amount available, and the amount that will be given to each person.

[Function 5] Remove Supply - Discards a supply that is present on the list. Useful for duplicate inputs, typographical errors in name, or amount.

[Function 6] View Supplies - Lists the number of supplies available. Colors in yellow represent that the amount of supply is low and needs to be replenished soon. Meanwhile, the red color represents that the supply is empty.

[Function 7] Location Finder - this part locates for the nearest place of a user's choice (whether the evacuation area or other) from a specified location.

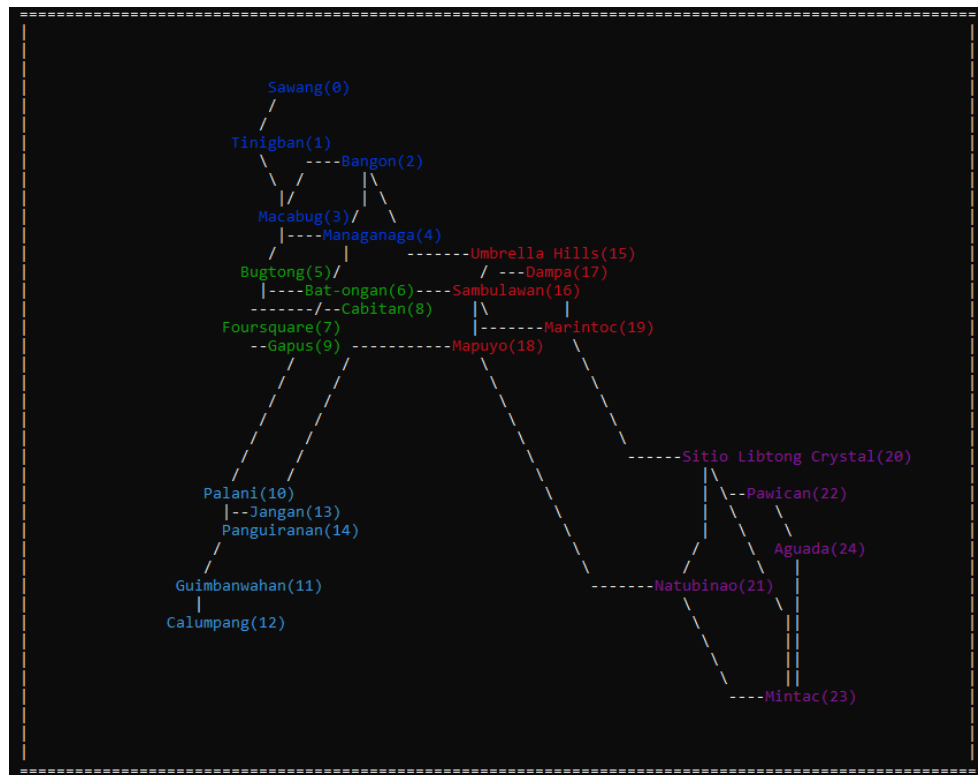
[Function 8] Change Location - (Only available after choosing a location) - This allows the user to change the location of the program. Note that changing affects the list of recipients, supplies, and the direction in the location finder.

[Function 9] Exit Program - Exits the program.

Selecting a Province/Island

After selecting a function, the user is then instructed to press the key to their chosen province. The program currently supports three different provinces:

- Masbate Island.
- Mindoro Island.
- Samar Island.



Main Program Functions

[F1] Add recipient The user will be asked to enter the **recipient's first name**. The program features an input verifier and detects if there's no input, and the names will format automatically. Then, the **last name** of the recipient. This program will also tell the user if the name is already in the database or has already received donations.

If the name is not in the database: it will ask for the recipient's age. It also verifies if the input is an integer or not and if the age is realistic or not.

After all the information is entered: the program will tell the user that the name has been added to the queue. He/she is always added to the last line of the queue.

[F2] Add Recipient After pressing the button, the program automatically removes the current top-of-queue from the queue and proceeds to the next receiver as the current recipient. The program also provides additional information: who

The program also provides additional information: Who was the previous recipient with number, next recipient with number

Supply check: The program also checks for the number of supplies before dequeuing recipients. In this case, there is an insufficient amount of instant coffee to be distributed. The user will then be instructed to press a key of their choice in Step 1.

Crackers	192	2
Instant Coffee	9	10
Medicine	72	2
Detergent Powde...	46	1

Instant Coffee
no longer has available supplies to deliver.
Please restock!

[F3] View Recipient Simply displays list of recipients. Goes back to the main program screen.

QUEUE			
#	FIRST NAME	LAST NAME	AGE
3	Trisha Mae	Sahol	18
4	Matthew Adri...	Moral	25
5	Jomil	Mutya	40
6	Francis Lean...	Ocampo	35
7	Patrick Nino...	Pollicarpio	20
8	Gabriel	Brines	22
9	Alyanna Joyc...	Castro	16
10	Merielle Ang...	Cenarosa	15
11	Maryjon Mori...	Gaba	19

11	Maryjon Mori...	Gaba	19
12	Bien Angelo	Ganal	17
13	Chezka Nicol...	Guevarra	29
14	Denise Faye	Isuela	27
15	Andrea Mae	Reyes	21
16	Nevin	Santiago	23
17	Kent	Bejerano	32
18	Evian Christ...	Bontogon	34
19	Renan Aldrin...	Casiano	36
20	James Marco	Chua	19
21	Juan	Dela Cruz	18

[F4] Add supply The user is instructed to enter the name of the supply. The program features an input verifier and detects if there's no input, and the names will format automatically.

Two Cases:

-If the item already exists

The program simply instructs the user to enter the amount to be added.

```
Enter the name of the supply
Rice Pack
Enter the amount you would like to add:
100
```

-If the item is not yet on the list.

The program will tell the user that it is a new item and requires input on the number of supplies.

```
Enter the name of the supply
Pancit Canton
Enter the amount of supplies (new item):
28
```

And then the amount per person to be distributed.

```
Enter the per person to be distributed
1
```

The program will tell the user that the item has been added to the list.

```
The following item was added to the list:
Name: Rice Pack
Added amount: 100
New amount: 196
```

[F5] Remove
Supply

The program will ask the user to enter the name of the item. If it is on the list, it will be removed. If not, it displays an error.

```

Enter the name of the supply
Rice Pack
Enter the amount you would like to add:
100

```

```

Enter the name of the item:
Face Mask

Item not found on the list!

```

[F6] View Supply

Simply displays the list of supplies, Redirects to main program choices.

SUPPLIES		
NAME	AMOUNT	PER PERSON
Bottled Water	419	1
Rice Pack	196	1
Pack Of Bread	86	1
Instant Noodles...	188	3
Canned Sardines...	188	3
Canned Meat	188	3
Canned Fruits	138	3
Vitamins	242	2
Blanket	196	1
Trashbag	42	2
First Aid Kits	76	1
Toiletries	46	1
Sleeping Mats	242	2
Crackers	192	2
Instant Coffee	9	10
Medicine	72	2
Detergent Powde...	46	1
Extra Batteries...	29	1
Cutlery	192	2
Plastic Plate &...	200	0

[F7] Location
Finder

The user has presented a map of the island of their choice.

The user must choose for the initial destination either the evacuation area or a destination of their choice.


```
INITIAL DESTINATION
Choose if:
(A) Evacuation Area
(B) Custom Destination
```

If the user chooses the evacuation area:

The program will automatically assign the evacuation area available on the map.

```
INITIAL DESTINATION
Sawang(Aroroy)
```

If the user chooses a custom destination:

The program will instruct the user to select the municipality of their choice. The list can be seen by the user below...

```
LIST OF MUNICIPALITIES IN
Masbate
Aroroy
Mandaon
Balud
Mobo
Cataingan
```

After selecting a municipality, the user has to select the list of available barangays. Note that for convenience purposes, the user may enter the number associated with it.

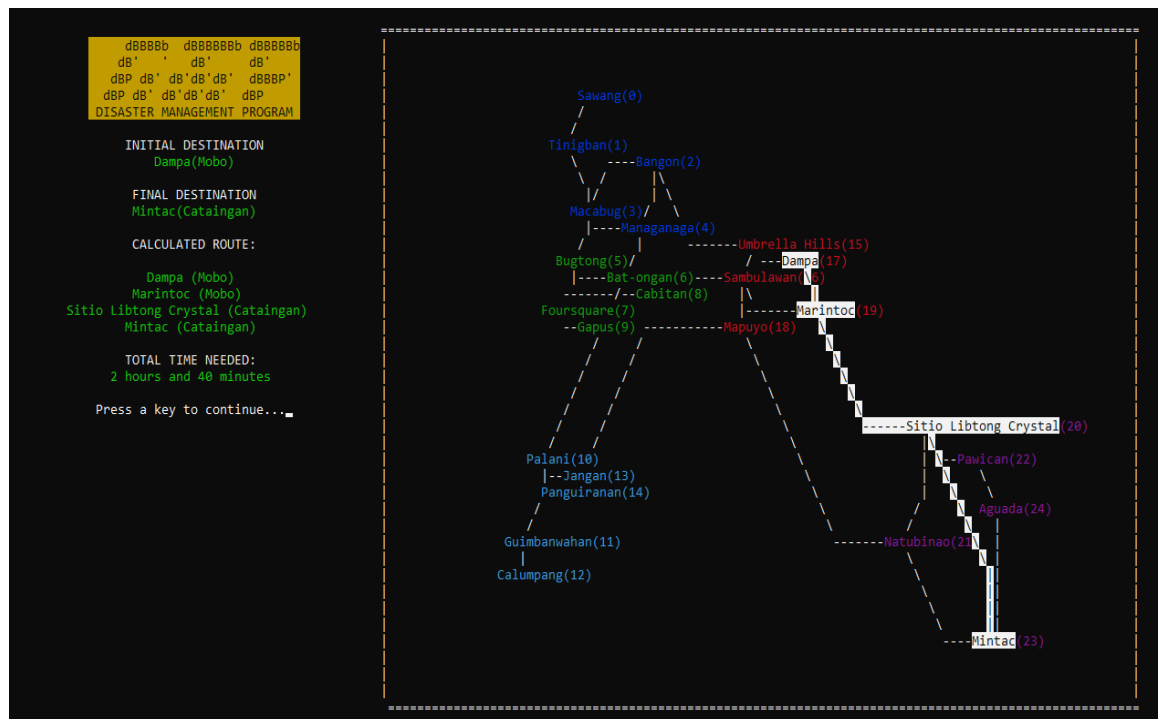
```
LIST OF BARANGAYS IN
Mobo
Umbrella Hills(15)
Sambulawan(16)
Dampa(17)
Mapuyo(18)
Marintoc(19)
```

Then the user will be instructed to choose the destination. Like in the initial destination, the user can also opt to either choose the evacuation area or a destination of their choice.

After choosing the initial and final destination, the user is presented the following information:

The shortest (and fastest) route available to be traversed --from the initial and final destination.

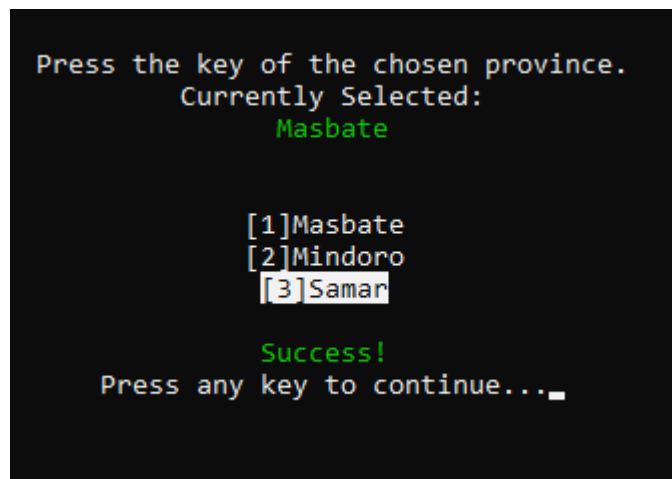
The minimum time needed before reaching the final destination (in normal conditions). And the highlighted route (white background)



The user will then be instructed to press a key of their choice in **Step 1**.

[F8] Location
Finder

The user is instructed to press the key of their chosen province.



-Then the queues and supplies lists will update accordingly.

-The user will then be instructed to press a key of their choice in **Step 1**.

[F9] Exit the
Program

The program will exit accordingly.

.....Page left intentionally blank.....