DIFFABLE ASSISTOR

SUPPORT DIFFERENTLY ABLED IN EAST GIPPSLAND

Team ALPHA

VERSION 1.2

6/7/2020

Version Control

Serial No.	Author	Date	Changes
1.0	Sushant and Richu	23/05/2020	No changes (Initial Draft)
1.1	Sushant and Richu	24/05/2020	Security Measures and Backup Plan
1.2	Sushant	06/06/2020	Updated Testing Information (Baseline version)
1.3	Richu	06/06/2020	Updated Data management

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1. PURPOSE

This document aims to provide information to the Future Sponsor or System Administrator on how to operate our web application (Diffable Assistor). This information includes how to run the website successfully, backup and restore the system, preparation for the future site, training requirement for support staff, data loading, future change management, and testing carried out.

2. PROPOSED SYSTEM

Diffable Assistor aims to alleviate the impacts on the Disabled people in East Gippsland who reported a need for assistance due to a "profound or severe core activity limitation" due to the climatic crisis. Bushfires have been a recurring natural disaster in Australia Vic-Bushfires. Disabled communities are the most vulnerable to the rapidly occurring wildfires, hurricanes and air pollution since many of them live with already compromised health conditions and limited mobility. They are those people who have the least access to emergency support in case of a climatic crisis. people in East Gippsland have reported a lack of needful assistance due to disability. As reported by the disabled people themselves East Gippsland needs for Assistance

Website URL	https://disablesupporteastgippsland.com/
Product Video	https://www.youtube.com/watch?v=yenHdNMEh5Y&rel=0

2.1 PRODUCT FEATURES

Feature A	List Service Directory
Description	This function allows users to list down the community support services in east Gippsland with relevant contact information
Purpose	Users can select the category of community support services from the list drop-down or utilize and add the predefined sub-category to search the services.

Feature B	The Service Finder
Description	This function provides users with a map which locates all the service providers details for each category
Purpose	Visually view the community service provider's location and access the contact information

Feature C	Accessibility Options
Description	Accessibility features will allow the specially challenged person to access the website using advanced accessibility tools.

	Users can enter the website as per their accessibility needs.
Purpose	To access the website with advanced accessibility options depending on the user preference or disability. Overall, soothe the strain on a person's eyesight.

2.2 EXPECTED BENEFITS

- A directory of services designed specifically for the disabled people in East Gippsland under one central hub which includes assistance for services including Living, Mental Health, Advocacy, Recreational, Job Seeking which addresses their core living activities.
- Access information and contact details under one roof directly from the website
- Components that are accessible by disabled people which includes colorblindness, farsightedness, and blurry vision and motor disability like a wheelchair. Disabled-friendly website to address the disabilities as they enable a broader section of society to access the internet and find information
- An accessibility guide on how to access the website based on the physical needs
  Colorblindness→ *Grayscale* to reduce the eye strain
  Farsightedness or Blurry vision → *Font resize*
  To ease cognitive processes and website browsing → *Hyperlink* enable
  Blind person assistor → *Screen reader*.

2.3 TARGET AUDIENCE

Disabled people in East Gippsland who fall under age group 30-59. They are those people who have reported the most in needing assistance with their core activities East Gippsland needs for Assistance

Includes people with colorblindness, blurry vision, and farsightedness.

3. DAY TO DAY PROCEDURE

The checklist that is tabulated below can be used by the system administrator for the smooth running of the website. Tasks are categorized based on daily and weekly basis

Daily Checks:

No	Tasks	Status
1	Data is the database is updated properly	
2	Unused plugins are either deactivated or deleted.	
3	Perform Security scans and review. Resolve any issues.	
4	Review the website and what could be improved?	

Weekly Checks:

No	Tasks	Status

1	Data is the database is updated properly	
2	Unused plugins are either deactivated or deleted.	
3	Perform Security scans and review. Resolve any issues.	
4	Review the website and what could be improved?	

4. TRAINING INFORMATION

The users who use our website do not need any special training to access and it's quite easy and simple to use and understand. Administrators on the other hand might need knowledge on SQL queries, knowledge on how to use Elementor to change the website's layout, and adequate security and analysis skills. The training is important as it will assist the administrator in managing the website properly and securely.

Here is a good starting point:
1. https://wordpress.org/support/article/creating-database-for-wordpress/
2. https://wordpress.org/support/plugin/elementor/
3. https://wordpress.org/plugins/really-simple-ssl/

5. PREPARATION FOR FUTURE SITE/DRIVE

Currently, our website is built on Hostgator Cloud. Physical acquisition of hardware is not needed for expansion or backup purposes. We recommend that your web host supports the following languages and protocols;

o MySQL: version 5.6x

o PHP: version 7.2x

o Apache with version 2.4 or higher

o The web server can be accessed through an FTP client

Wordpress on Hostgator: https://www.hostgator.com/help/article/what-software-and-program-versions-does-hostgator-offer

6. DATA MANAGEMENT

The data is validated for missing values as some of the service providers had null values in their contact information

Python was used to do the data wrangling and fixing the errors

The location information of the service providers was validated using tableau and coordinates are reviewed.

Data Source Details:

Data Sources (Open datasets)							
Names	**Physical Access**	**Frequency of Source Updated**	**Frequency of iteration system Updates**	**Link**	**Granularity**	**Copyright**	**Analysis/Wran gling**
Victorian Government Organizations, services, description, and contact information	XLSX	Annually	Annually	[Service Directory - Victoria XLSX](#)	High Granular	[Vic.gov.au - Service Directory](#)	Data is cleaned and wrangled using python. The values are checked and explored using Tableau.
Data About service providers in East Gippsland categorized	PDF	Annually	Annually	[East Gippsland Service Directory PDF](#)	Low Granular	[East Gippsland.Vic. Gov.Au](#)	Data is wrangled from the pdf and then transformed into tabular data using python. Missing values are checked and imputed
Victoria National Disability Insurance Scheme Service providers by name	PDF	Annually	Annually	[NDIS Service Directory PDF](#)	High Granular	[NDIS.Gov.au](#)	Data is WraNgled from the PDF and transformed into tabular data format. This data is then merged according to the standard format with uniform column values using python

DATA WRANGLING, EXPLORATION, AND MERGING:

- ➢ The data is validated for missing values as some of the service providers had null values in their contact information
- ➢ Python was used to do the data wrangling and fixing the errors
- ➢ The location information of the service providers was validated using tableau and coordinates are reviewed
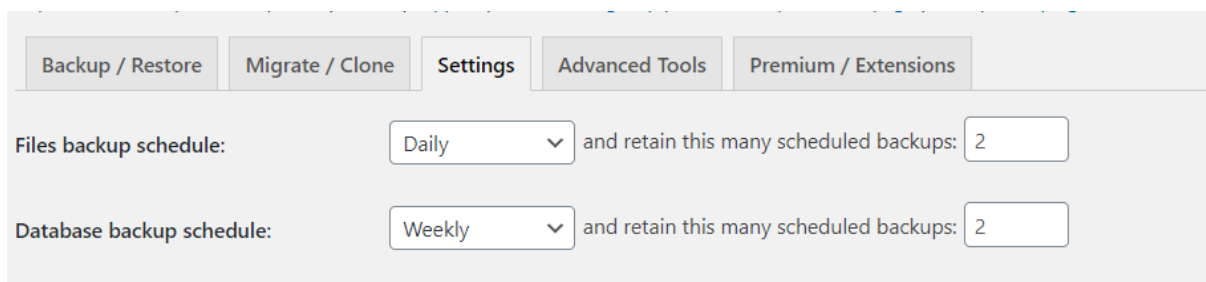
7. SECURITY AND PRIVACY INFORMATION

Security plugins as well as configurations of the wp-config.php and .htaccess files were measures implemented to protect our website. In addition, regular and automatic updates of patches, plugins, and themes should be performed. In-case of any eventualities, if the system needs to be restored from backup, the following procedures should be followed. For our website, we used the UpdraftPlus plugin for backup and restore. Its backups the files and database to your choice of the remote location.

7.1 SECURITY PLUGINS USED AND PURPOSES

- ➢ Simple SSL is used to add website security, which helps the website to complete the registration for SSL certificate and make the site SSL proof.
- ➢ Password Protected is used to reduce the possibility to suffer a malicious attack since the website is still under maintenance.
- ➢ iThemes Security for network brute force attacks, database backups, strong password

7.2 BACKUP AND RECOVERY

- ➢ Settings ➔ UpdraftPlus Backups
- ➢ Backup can be done manually, or it could be automated

Figure 1: Schedule Automatic Backups

Figure 2:Updraft Plus Backups

Figure 3:Updraftplus restore

To Restore, find and select the version to restore from then click Restore

7.3 INSTALL BACKUP

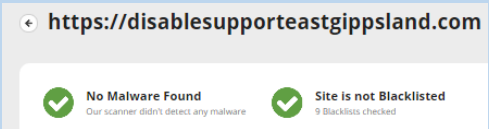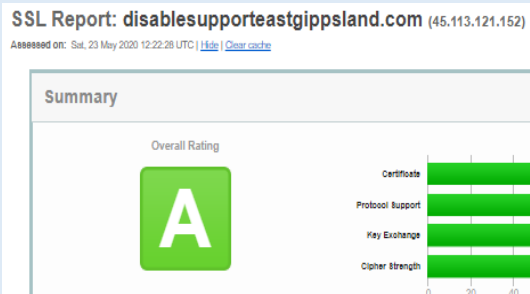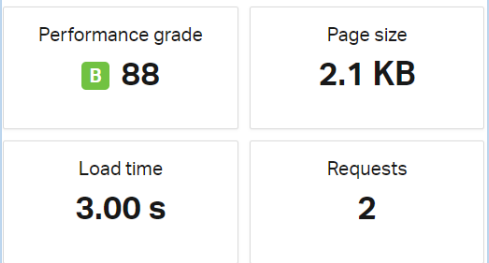To install a backup copy on a new Wordpress Instance deployment, follow the steps below

➢ Install and activate UpdraftPlus Backup plugin
➢ Upload backup from offsite location e.g. Google Drive, Dropbox, etc
➢ Restore backup as indicated above.

8. TESTING INFORMATION

8.1 TESTING PLAN:

Table 1

Test Type	Description	Tool	Test Result	Tester

Security Test	Test for Malware, Website Errors Blacklisting Status, Injected SPAM and Out-of-date	Sucuri Site Check		Sushant
Security Test	An in-depth scan analysis for vulnerabilities and misconfiguration in our web application	SSL Labs		Sushant
Backup and Recovery Test	Test if the website can be recovered by the backup file	Updraft Plus Backup/ Restore	Passed	Sushant
Speed and Performance Test	Analyze the speed of a website to acknowledge how well it performs.	Gtmetrix		Sushant
Load Test	Help to make sure the web site is faster by identifying what about a webpage is a fast, slow, too big or other problem	Pingdom		Sushant
Acceptance Test	Test if all the functions work well.	Check the website performing	Passed	The Alpha

9. FUTURE CHANGES

All the details that are required to understand the structure of the product are mentioned in the product and maintenance document. Please refer them to understand the security, server, and database connectivity. A person that is required to make changes in the future must be aware of web development languages such as PHP, JavaScript, and technologies such as WordPress, as this product is mainly developed using WordPress. He must be aware of the hosting platform for the product which is Hostgator, in this product or any other cloud management services, he wishes to use. We have used MySQL as the Database Management System to integrate with the website. The Data Model is built in Python, so he must be aware of using Python and related packages. All the backups are done using Updraft Backup plugin and google drive is the location set by the plugin. The developer must use his skills to make this recommendation work accurately.