

V2.0.0

DEEP DIVE INTO SPACE RACE



Majdi M. S. Awad

Artemis program - NASA - CSA - ESA - JAXA

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WHY DDS?

This application is designed to give everyone an opportunity to go deep into space and get a lot of accurate information from a trusted source.

TECHNOLOGIES

I have designed and developed this application based on the following languages and technologies:

- HTML
- CSS (Bootstrap 5)
- PHP 7.4
- SQL (MySQL as RDBMS)
- Python and C#

MODULES

This application consist of the following 3 main modules:

- Space missions module
- Mars images module
- Star Type Classification

CLIENT AND TEAM WORK

The Client: CELESTRAK

CELESTRAK is now a 501(c)(3) non-profit and we need your help. CELESTRAK'S mission remains focused on making data and other resources freely available to the space community to facilitate understanding of our orbital environment and how to use it safely and responsibly.

Team Work:

Project Manager: Majdi Awad | PHP & SQL Developer | Specializing in artificial intelligence and machine learning.

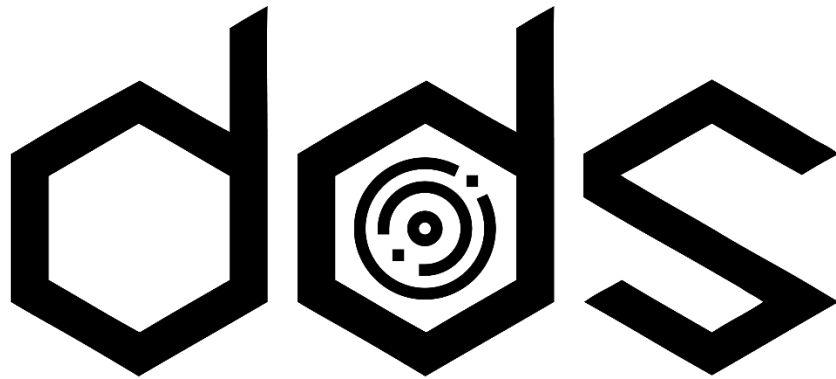
Front-end Designer: Haba Khalifah | Front-end Developer

Data Collection: Saikat Panja

BRANDING & GRAPHIC DESIGN

Project logo

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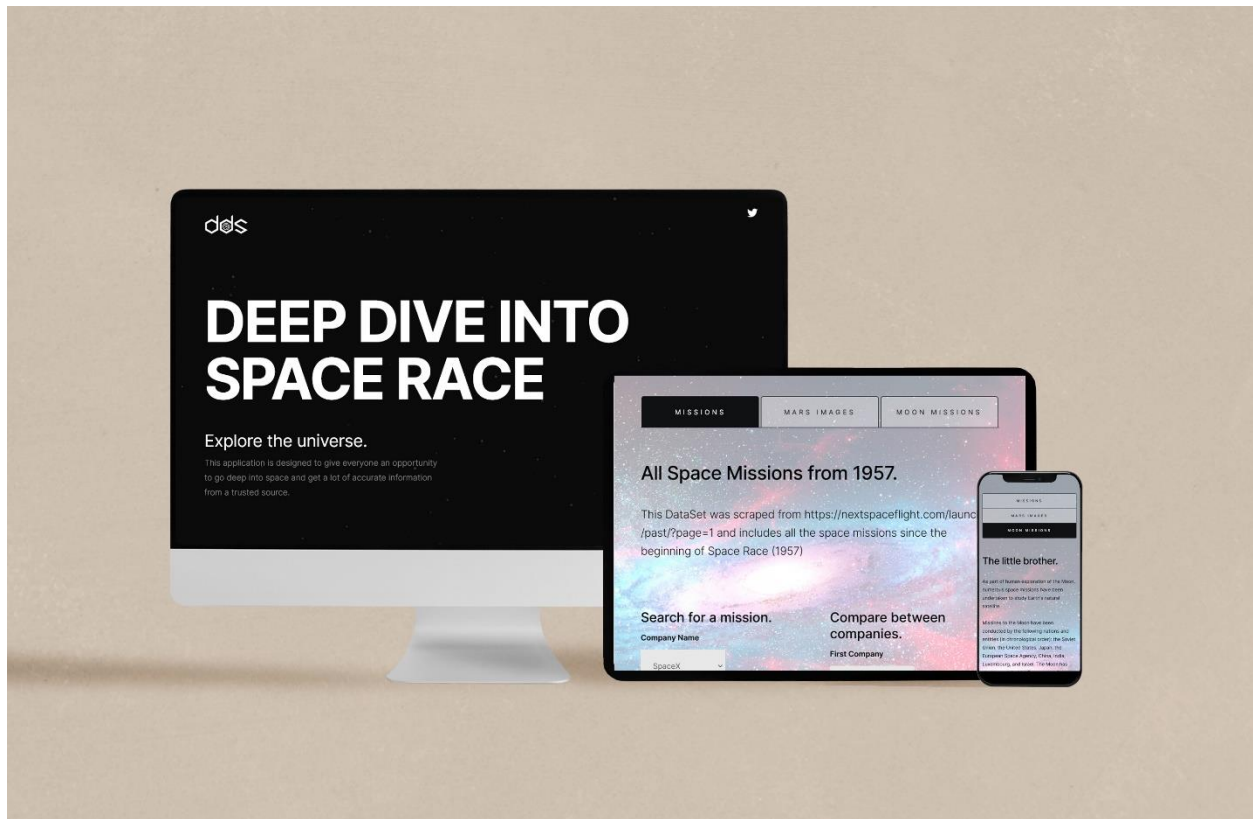


The graphic device



FRONT-END DEVELOPMENT

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This application designed to be combatable with all devices and screen sizes for more efficiency.

Type	Line	Column	HTML errors and warnings
Info	0	0	0 errors / 0 warnings


```

16
17 =====>
18 esheet" href="css/vendor.css">
19 esheet" href="css/styles.css">
20
21
22 =====>
23 e-touch-icon" sizes="180x180" href="apple-touch-icon
24 " type="image/png" sizes="32x32" href="favicon-32x32
25 " type="image/png" sizes="16x16" href="favicon-16x16
26
27
28
29
30
31 s="theme-particles">
32
33
34
35 =====>

```

Help [Edit Help...](#)

HTML Validator

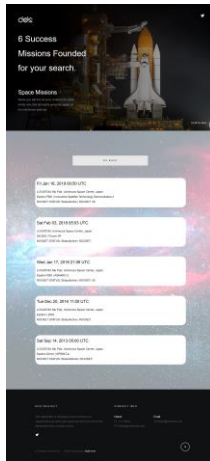
The errors and warnings are generated by [Tidy](#), originally developed by the [W3C](#). Tidy tries to correct HTML errors by classifying them in 2 categories:

- Critical HTML errors that Tidy cannot fix or understand.
- HTML errors that Tidy can fix automatically.

[index.html]The validated page has no errors, no warning found by HTML Tidy.

To show your readers that you have taken the care to create an interoperable Web page, you may add this icon on your page:





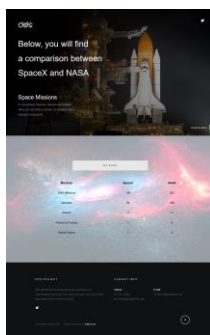
missions_results.php

The validated page has no errors, no warning found by HTML Tidy.

To show your readers that you have taken the care to create an interoperable Web page, you may add this icon on your page:



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compare_missions.php

The validated page has no errors, no warning found by HTML Tidy.

To show your readers that you have taken the care to create an interoperable Web page, you may add this icon on your page:



This application designed to be combatable with all devices and screen sizes for more efficiency.



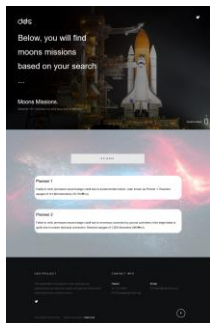
mars_results.php

The validated page has no errors, no warning found by HTML Tidy.

To show your readers that you have taken the care to create an interoperable Web page, you may add this icon on your page:



This application designed to be combatable with all devices and screen sizes for more efficiency.



moon_results.php

The validated page has no errors, no warning found by HTML Tidy.

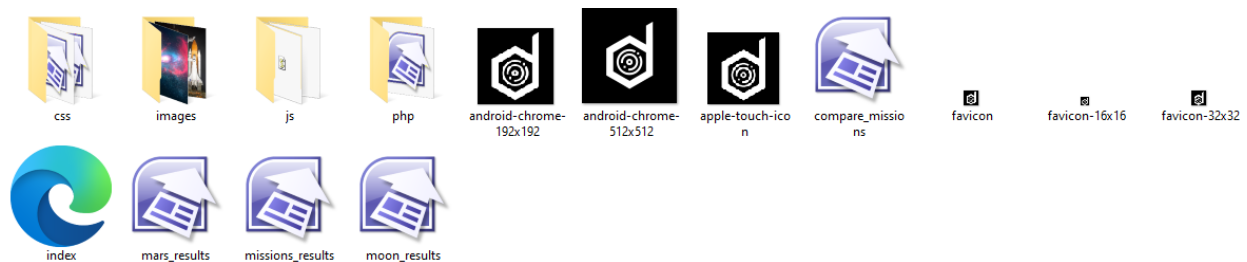
To show your readers that you have taken the care to create an interoperable Web page, you may add this icon on your page:



DATABASE

ddsp space	ddsp mars	ddsp moon
# id : int(4)	# id : int(11)	# id : int(11)
company : varchar(16)	attitude : text	spacecraft : varchar(255)
location : varchar(87)	caption : text	payload : varchar(255)
date : varchar(26)	taken_mars : text	# date : int(11)
detail : varchar(70)	credit : text	carrier_rocket : varchar(255)
status_rocket : varchar(13)	date : text	country : varchar(255)
rocket : varchar(8)	taken_utc : text	operator : varchar(255)
status : varchar(17)	link : text	type : varchar(255)
	title : text	outcome : varchar(255)
	received : text	description : text
	image : text	
	filter : text	
	instrument : text	
	model : text	

STRUCTURE



Index.html: Contain all search forms

missions_results.php: connected to [Search for a mission form] and it will present the search results.

compare_missions.php: connected to [Compare between companies form] and it will present the search results.

mars_results.php: connected to [Find Images form] and it will present the search results.

moon_results.php: connected to [The little brother form] and it will present the search results.

BACK-END DEVELOPMENT

I have used PHP and SQL to handle the back-end for this project. You will find [db_config.php] in folder [php], this file responsible to connect to the database and here is the code:

```
<?php
$servername = "localhost";

$username = "root";

$password = "";

$databse = "ddsp";

$conn = new mysqli($servername, $username, $password, $databse);

if ($conn->connect_error) {

die("connection failed: " . $conn->connect_error);

}

?>
```

In order to create the search, I have used the following method: (an example from missions_results.php)

- 1- Use the global variable to get the data from the form and save it in a variables:
 - a. \$company = \$_GET['company'];
 - b. \$status = \$_GET['status'];
- 2- Write my query to get the data from the table
 - a. \$missions = \$conn->query("SELECT * FROM space WHERE company LIKE '%{\$company}%' AND status LIKE '%{\$status}%'");
- 3- Fetch object and save it in a variable
 - a. \$r = \$missions->fetch_object();
- 4- Check if the query result is more than 0
 - a. if(\$missions->num_rows) {
- 5- Start a loop to present all the records:
 - a. while(\$r = \$missions->fetch_object()) {
- 6- Present the results using HTML and PHP as below:

```
<div class="lg-12 missionresults">

<h4 style="padding:20px 10px 0px 10px;" class="item-title"><?php echo $r->date; ?></h4>

<p style="padding:5px 10px 20px 10px;">

LOCATION: <?php echo $r->location; ?><br>

<?php echo $r->detail; ?><br>

ROCKET STATUS: <?php echo $r->status_rocket; ?> | ROCKET: <?php echo $r->rocket; ?>

</p></div>
```


CONCLUSION

It was a simple PHP & SQL website. I have used PHP (OOP), SQL, HTML, and CSS - Bootstrap framework to finalize it.

I have tested the index.html on validator.w3.org and the result was:

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Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change.

Showing results for uploaded file index.html

Checker Input

Show

☐ source

☐ outline

☐ image report

Options...

Check by

file upload

Browse...

 No file selected.

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

Check

Document checking completed. No errors or warnings to show.

As mentioned all pages tested using tidy validator and I got no issues or comments.

ABOUT ME

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