

# U.S. CYBER RANGE WEBSITE

CS 4624 - Multimedia, Hypertext, and Information Access  
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PROJECT  
REFRESHER



CUSTOM THEME  
STRUCTURE



HOW CLIENT  
USES IT



FUTURE WORK



LESSONS  
LEARNED

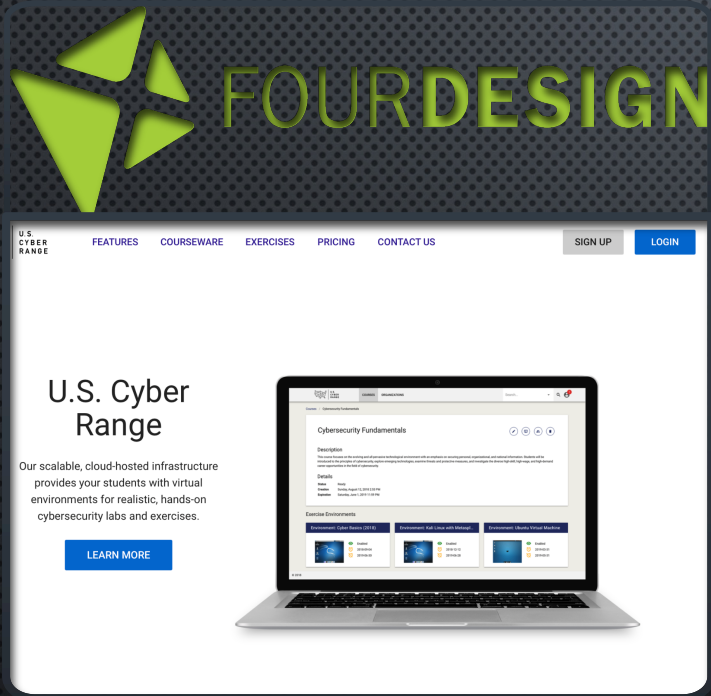


ACKNOWLEDGE  
MENTS

# OUTLINE



# PROJECT REFRESHER



- U.S. CYBER RANGE WEBSITE REDESIGN
- COLLABORATION WITH FOURDESIGN TEAM
- SITE WILL BE CLIENT MAINTAINABLE

> assets

> css

> fonts

> js

> widgets

🐘 archive.php

🐘 footer.php

🐘 front-page.php

🐘 functions.php

🐘 header.php

🐘 index.php

🐘 page-about.php

🐘 page-pricing.php

🐘 page-services.php

🐘 page.php

🐘 single.php

# style.css

# CUSTOM THEME

- MAIN DELIVERABLE TO CLIENT
- CONSISTS OF
  - WORDPRESS OVERHEAD
  - PAGE TEMPLATES
  - WIDGETS
  - ACCOMPANING CSS/JS FILES



# WIDGETS/WIDGET AREAS

```
<?php get_header(); ?>
<div class="about_page">
<div class="container page-title">
<?php dynamic_sidebar('about-title-widgetarea') ?>
</div>

<?php dynamic_sidebar('about-description-widgetarea');
```

```
class CRAboutTitle_Widget extends WP_Widget {

    /**
     * Register widget with WordPress.
     */
    public function __construct() {
    }

    /**
     * Front-end display of widget.
     *
     * @see WP_Widget::widget()
     *
     * @param array $args Widget arguments.
     * @param array $instance Saved values from database.
     */
    public function widget( $args, $instance ) {
    }

    /**
     * Back-end widget form.
     *
     * @see WP_Widget::form()
     *
     * @param array $instance Previously saved values from database.
     */
    public function form( $instance ) {
        <?php
        <div>

        /**
         * Sanitize widget form values as they are saved.
         *
         * @see WP_Widget::update()
         *
         * @param array $new_instance Values just sent to be saved.
         * @param array $old_instance Previously saved values from database.
         *
         * @return array Updated safe values to be saved.
         */
    public function update( $new_instance, $old_instance ) {
    }
}
```

# SAMPLE USE CASE

W

USCyberRange

0

New

Howdy, dev

Screen Options

Help

Dashboard

Home

Updates

Posts

Media

Pages

Comments

Appearance

Plugins

Users

Tools

Settings

Collapse menu

Welcome to WordPress!

We've assembled some links to get you started:

Get Started

Customize Your Site

or, [change your theme completely](#)

Next Steps

[Edit your front page](#)

[Add additional pages](#)

[View your site](#)

More Actions

[Manage widgets](#)

[Manage menus](#)

[Turn comments on or off](#)

[Learn more about getting started](#)

Site Health Status

Should be improved

Your site has critical issues that should be addressed as soon as possible to improve its performance and security.

Take a look at the 8 items on the [Site Health screen](#).

At a Glance

1 Post

2 Pages

WordPress 5.8.2 running [CyberRange](#) theme.

Activity

Recently Published

Nov 13th, 3:25 pm

[Hello world!](#)

Quick Draft

Title

Content

What's on your mind?

Save Draft

WordPress Events and News

Attend an upcoming event near you.

WordCamp Taiwan Online

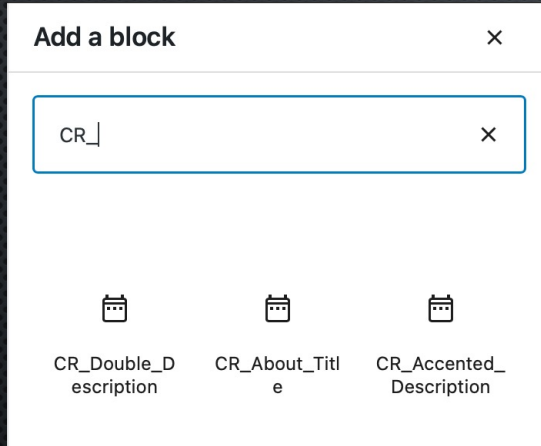
Online

Saturday, Dec 11, 2021

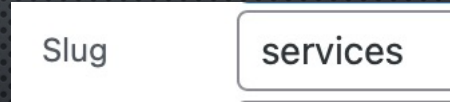


# FURTHER CUSTOMIZATION OPTIONS

Some of the custom widgets created shown on the WordPress dashboard



A snippet, from the WordPress dashboard, of using the services template that we created.





# INDEPENDENT DEVELOPMENT

- CLIENT UNABLE TO PROVIDE HOSTING ENVIRONMENT IN TIMEFRAME - COULDN'T GET AN ENVIRONMENT FOR US IN A TIMELY MANNER
- RUNNING AN INSTANCE OF WORDPRESS THROUGH XAMPP RUNNING MySQL AND APACHE CONCURRENTLY





# XAMPP DASHBOARD

- XAMPP IS AN APACHE DISTRIBUTION THAT INCLUDES PHP, PERL, AND MYSQL FOR EASE OF DEVELOPMENT WORKSPACE SETUP AND MANAGEMENT

XAMPP Control Panel v3.3.0 [ Compiled: Apr 6th 2021 ]

**XAMPP Control Panel v3.3.0**

Service	Module	PID(s)	Port(s)	Actions
<input type="checkbox"/>	Apache	7260 1832	80, 443	Stop Admin Config Logs
<input type="checkbox"/>	MySQL	1224	3306	Stop Admin Config Logs
<input type="checkbox"/>	FileZilla			Start Admin Config Logs
<input type="checkbox"/>	Mercury			Start Admin Config Logs
<input type="checkbox"/>	Tomcat			Start Admin Config Logs

2:26:11 PM [main] All prerequisites found  
2:26:11 PM [main] Initializing Modules  
2:26:11 PM [main] Starting Check-Timer  
2:26:11 PM [main] Control Panel Ready  
2:26:13 PM [Apache] Attempting to start Apache app...  
2:26:14 PM [Apache] Status change detected: running  
2:26:15 PM [mysql] Attempting to start MySQL app...  
2:26:15 PM [mysql] Status change detected: running

U.S. Cyber Range Preser X Cyber Range final page: X Customize: X

localhost/testsite/wp-admin/customize.php?theme=CyberRangeCust...

Customizing > Widgets  
About Title

CR\_About\_Title

Top White Text:  
we provide

Green Text:  
Cloud-Based Infrastructure

Bottom White Text:  
for educators, industry, and other to c

WE PROVIDE  
CLOUD-BASED  
INFRASTRUCTURE  
for educators, industry, and other to c  
cybersecurity trainin

U.S. CYBER RANGE

Sample Page

Sign Up

Hide Controls

File Edit Selection View Go Run Terminal Help style.css - CyberRangeCustomTheme - Visual Studio Code

header.php functions.php footer.php front-page.php # style.css X # footer.css

```
css > # style.css > ...
677
678
679 div.foot {
680     position: absolute;
681     width: 1440px;
682     height: 543px;
683     top: 4625px;
684 }
685
686 .wires {
687     position: relative;
688     width: 100%;
689     height: 100%;
690     top: 115px;
691     left: 55px;
692     filter: drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25)) drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25));
693 }
694
695 .rectangle {
696     position: relative;
697     width: 100%;
698     height: 535px;
699     border: 6px solid #39F9AE;
700     box-sizing: border-box;
701     filter: drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25)) drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25));
702 }
703
704 .footerlogo {
705     position: relative;
706     left: 11.29%;
707     right: 72.99%;
708     bottom: 430px;
709     filter: drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25)) drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25));
710 }
711
712 .subscribe {
713     position: relative;
714     left: 9%;
715     right: 72.99%;
716     bottom: 600px;
717     box-shadow: 0px -5px 7px rgba(1, 9, 38, 0.2);
718 }
719
720 .facebook input{
721     position: relative;
722     left: 11.29%;
723     right: 72.99%;
724     bottom: 430px;
725     filter: drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25)) drop-shadow(0px 4px 4px rgba(0, 0, 0, 0.25));
726 }
```

Ln 677, Col 1 Spaces: 4 UTF-8 LF CSS



# FUTURE WORK

Implement Remaining Site Elements



Ensure site maintains accessibility standards (WCAG 2.1 Level AA)



Search Engine Optimization (SEO)



Implement further revisions as site develops

# LESSONS LEARNED



Time Management and Efficient Scheduling



Team Communication



Design Process (Design, Revisions, Approval)



# ACKNOWLEDGEMENTS



Jeff Joiner – Leader of Four Design Team



DR. FOX – PROFESSOR



# REFERENCES

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QUESTIONS?