



CODE-LOGIK

Crafting Cutting-Edge Software

THE WILLOW TREE OMS

CS4233 CAPSTONE PROJECT 2024

TESTING

PREPARED BY:

Mark Sarasua, Jr.

Application Development

Code-Logik

21081 Insight Avenue, Tulsa, OK, 74135

918-555-2240 | 918-555-2645

mark.sarasua@code-logik.com

PREPARED FOR:

Maria Zabala

Owner

The Willow Tree

600 N. Grand Ave., Tahlequah, OK, 74464

918-456-5511 | 800-722-9614

maria.zabala@thewillowtree.com

PROJECT OVERVIEW

PROJECT NAME: The Willow Tree OMS

PROJECT REFERENCE: CS4233 CAPSTONE PROJECT 2024

DATE: 29 JAN 2024 – 29 APR 2024

OBJECTIVE: Redesign The Willow Tree's Order Management System (OMS) to create a secure, stable, high-performance application capable of keeping pace with restaurant business demands while providing the customer with the best possible dining experience.

PROBLEM STATEMENT: The current OMS software performance is impacted by circumstances extending beyond The Willow Tree's scope of business; the hosted source code is also vulnerable to random and targeted security threats and requires a redesign to protect the integrity of The Willow Tree's day-to-day operations.

RETRIEVE MENU ITEMS

The Retrieve Menu Items Iteration focused development on the Database, MenuItem, and MenuItems classes. A simple JSON database file was used to test their correctness.

The JSON database consisted of five generic menu items (Figure 1).

```
{
  "Name": "Item 1",
  "Image": "none",
  "Description": "Lorem ipsum dolor sit amet, consectetur adipiscing elit.",
  "Category": 1,
  "Price": 5.99,
  "Period": [
    true,
    true,
    true
  ]
},
```

Figure 1. JSON Database Menu Item 1 of 5.

A new instance of the MenuItems class was created, and a List<> of MenuItem was used to store the five generic menu items in the JSON database (Figure 2).

```
static void Main(string[] args)
{
    Console.WriteLine("\n\nRetrieve Menu Items Testing Tool\n\n");
    MenuItems menu_items = new MenuItems();
    List<MenuItem> menu_items_list = menu_items.Items;
    foreach (MenuItem item in menu_items_list)
    {
        Console.WriteLine
        (
            item.Name + " " +
            item.Image + " " +
            item.Description + " " +
            item.Category + " " +
            item.Price + " " +
            $"{item.Period[0]}, {item.Period[1]}, {item.Period[2]}"
        );
    }
    Console.WriteLine("\n\n");
    Console.ReadKey(true);
}
```

Figure 2. Retrieve Menu Items Test Code.

The expected console output was a line-by-line display of each of the five menu items in the JSON database.

```
Retrieve Menu Items Testing Tool

Item 1 none Lorem ipsum dolor sit amet, consectetur adipiscing elit. 1 5.99 True, True, True
Item 2 none Lorem ipsum dolor sit amet, consectetur adipiscing elit. 2 10.99 True, True, False
Item 3 none Lorem ipsum dolor sit amet, consectetur adipiscing elit. 3 15.99 True, False, True
Item 4 none Lorem ipsum dolor sit amet, consectetur adipiscing elit. 4 20.99 True, False, False
Item 5 none Lorem ipsum dolor sit amet, consectetur adipiscing elit. 5 25.99 False, True, True
```

Figure 3. Retrieve Menu Items Test Console Output.

Since the console output was what was expected (Figure 3), the Retrieve Menu Items Test is considered a success. Therefore, the Retrieve Menu Items Iteration will be closed, and the View Menu Iteration will be opened.

For further details and information, please contact:

Mark Sarasua, Jr.
Application Development
918-555-2240 | 918-555-2645
mark.sarasua@code-logik.com