

THE WILLOW TREE OMS
CS4233 CAPSTONE PROJECT 2024

MODELING

PREPARED BY:

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Application Development

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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.

USER STORIES

USER STORY 1	
Story Title	View Menu
Story ID	001
Story Type	User
Functional Area	Design and Structure Menu Items and Selection
Non-Functional Area	Usability Performance
Priority	1
As a	Customer
When	seated at a table
I want to	be able to view the menu
In order to	make selections



USER STORY 2	
Story Title	Select Menu Items
Story ID	002
Story Type	User
Functional Area	Design and Structure Menu Items and Selection
Non-Functional Area	Usability Performance
Priority	1
As a	Customer
When	viewing the menu
I want to	be able to select menu items
In order to	prepare to place an order

USER STORY 3	
Story Title	Unselect Menu Items
Story ID	003
Story Type	User
Functional Area	Design and Structure Menu Items and Selection
Non-Functional Area	Usability Performance
Priority	1
As a	Customer
When	viewing the menu
I want to	be able to change menu item selections
In order to	prepare to place an order



USER STORY 4	
Story Title	Cancel Order
Story ID	004
Story Type	User
Functional Area	Design and Structure Menu Items and Selection
Non-Functional Area	Usability Performance
Priority	1
As a	Customer
When	viewing the menu
I want to	be able to clear all menu selections
In order to	cancel my order

USER STORY 5	
Story Title	View Order
Story ID	005
Story Type	User
Functional Area	Design and Structure
	Menu Items and Selection
	Order Summary
Non-Functional Area	Usability
	Performance
Priority	1
As a	Customer
When	viewing the menu
I want to	be able to view all menu selections
In order to	ensure selection correctness



USER STORY 6	
Story Title	Place Order
Story ID	006
Story Type	User
Functional Area	Design and Structure
	Menu Items and Selection
	Order Summary
Non-Functional Area	Usability
	Performance
Priority	1
As a	Customer
When	viewing the menu
I want to	be able to view a menu selections summary
In order to	place an order

USER STORY 7	
Story Title	Pay Bill
Story ID	007
Story Type	User
Functional Area	Design and Structure
	Order Summary
	Receipt
Non-Functional Area	Usability
	Performance
Priority	1
As a	Customer
When	finished dining
I want to	be able to review all menu selections
In order to	pay the bill

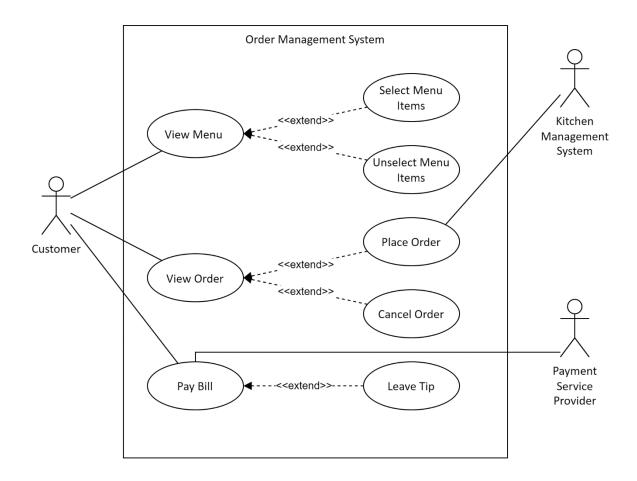


USER STORY 8	
Story Title	Leave Tip
Story ID	008
Story Type	User
Functional Area	Design and Structure Receipt
Non-Functional Area	Usability Performance
Priority	1
As a	Customer
When	paying the bill
I want to	be able to add to the total
In order to	leave a tip



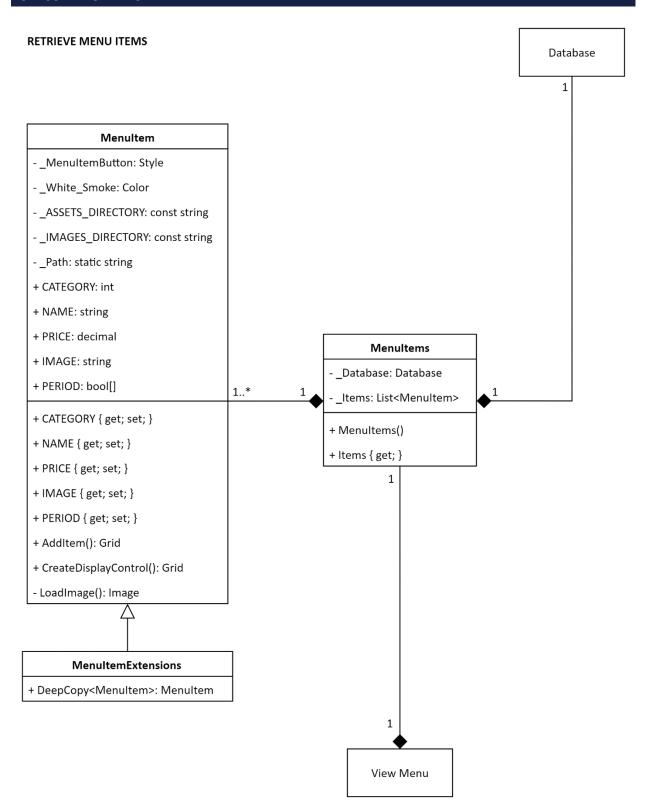
USE-CASE DIAGRAM

The Willow Tree OMS USE-CASE

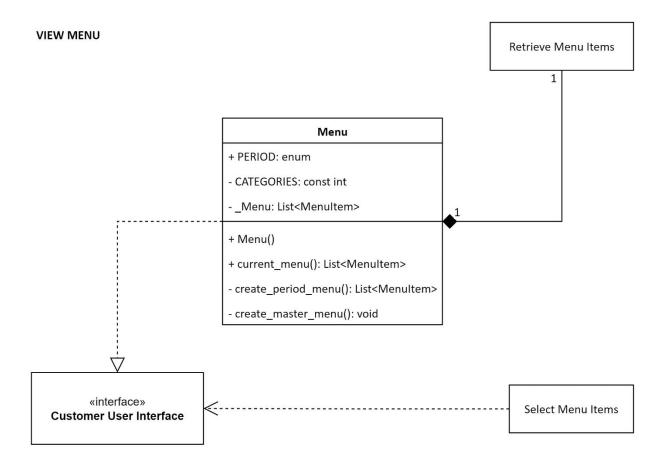




CLASS DIAGRAMS

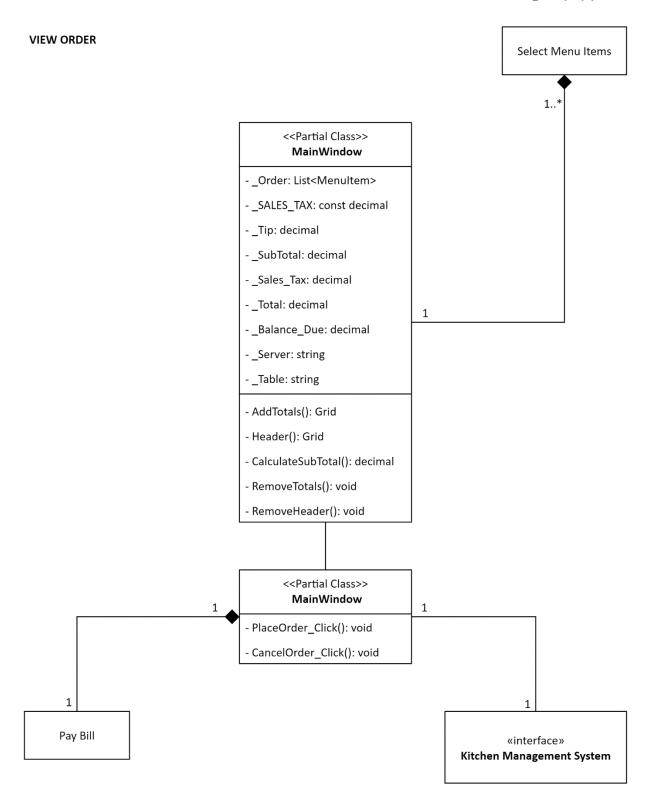














PAY BILL

View Order

1

<<Partial Class>> MainWindow

- _PaymentMethod: string

- server: string

- table: int

- customers: int

- items: Menultems[]

- tip: float

- subtotal: float

- tax: float

- total: float

- method: PAYMENT

- CloseOrder(): async Task

1

- Credit_Click(): void

- Cash_Click(): void

- AddTipButton_Click(): void

- NoTipButton_Click(): void

- Tip10Button_Click(): void

- $Tip15Button_Click()$: void

- Tip20Button_Click(): void

- Tip25Button_Click(): void

 $- \ Tip Slider_Value Changed (): void \\$

- PayBill_Click(): void

- PlaceOrder_Click(): void

- UpdateOrder(): List<string>

- Removeltems(): void

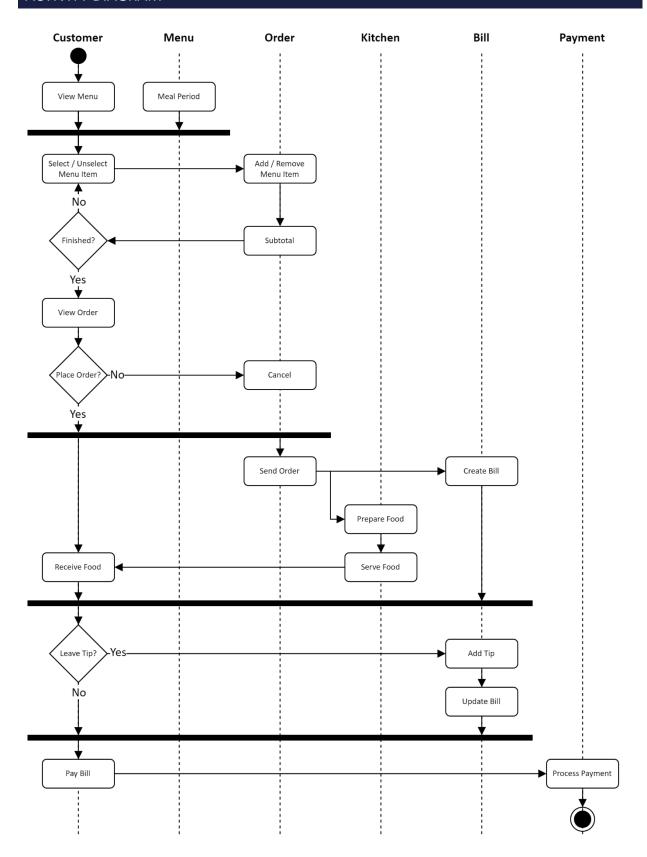
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«interface»

Payment Service Provider

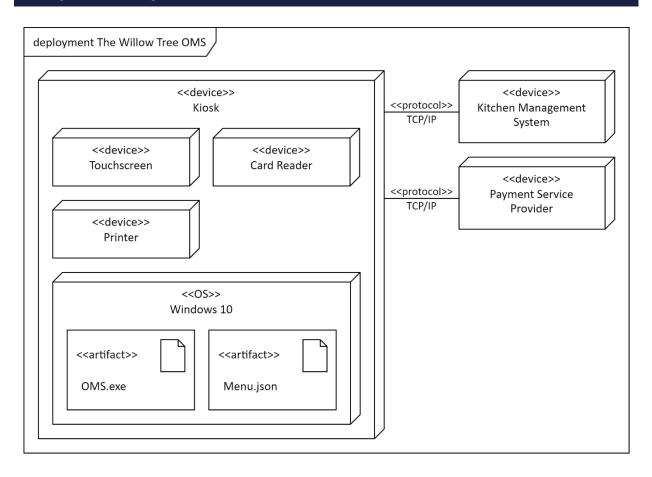


ACTIVITY DIAGRAM





DEPLOYMENT DIAGRAM



For further details and information, please contact:

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