

Eclectic Eats Haven

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December 13, 2023

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# Software requirements

## Basics

* Home Page
* Sign Up Page
* Login Page
* Forgot Password Page
* Menu Page
* Cart Page
* Payment Page
* Receipt Page
* Manager Menu

## Customer Controls

* View list of items
* Select items
* Add/remove items
* Choose/remove sides & toppings
* View preparation time
* Name for order identification and also provided an orderID
* Card, cash, PayPal, Samsung Pay, Google Pay Apple Pay payment methods
* Add optional tip

## Manager Controls

* Add/remove items/toppings (change item and topping availability)
* Change item prices
* View order information(receipt)

# Inception

## Stakeholders

* + Restaurant for which the website is built
  + Customers of said restaurant
  + Web developers

## Multiple Viewpoints

* + Easy to use by end users
  + Maintainable for developers

## First Questions

* + Who is behind the request for this work?
    - Restaurant owner
  + Who will use the solution?
    - Restaurant owner
    - Customers of the restaurant
  + What will be the economic benefit of a successful solution?
    - The restaurant may gain more customers which will result in them earning more money.
  + Is there another source for the solution that you need?
    - No.
  + How would you characterize “good’ output that would be generated by a successful solution?
    - Restaurant owner is satisfied with the website and will use it daily. A lot of customers will use this website to order.
  + What problems will this solution address?
    - Customers can now order online as well besides calling in or walking in to order.
  + Describe the business environment in which the solution will be used.
    - The business environment in which the website will be used is the restaurant for which the website is built.
  + Will special performance issues or constraints affect the way the solution is approached?
    - No.

## Nonfunctional Requirements

* + Maintainable – The website should be easy to maintain and update as needed.
  + Portable – The website should be able to adapt to different browsers and screen sizes.
  + Reliable – The website should be reliable so that customers will want to order from the website, and the manager will use the website and want to update the menu. When paying by card, the card number will be validated.
  + Secure – the website should be secure. The user password will be hashed. Users can change passwords.

# Elicitation

## Objectives of the Website

* + Provide a website for a restaurant where the manager can manage the menu.
  + Customers can place orders from the online menu, pay for their order online, and view their order receipt. They can also print their order receipt.
  + Provide basic login and sign-up screen as well as reset-password screen.

## Needs of the Business

* + Customers can easily place orders online instead of needing to call or place the order in person.
  + The restaurant manager can easily edit the online menu unlike needing to re-print their menu after making a change. This ensures that the menu is up to date.

## Day-to-Day Basis

* + With a large clientele, there will be many hungry customers placing orders, and this website can facilitate that.

## Business Goals

* + Provide a restaurant website that can be used by customers to place orders daily.

## Priorities

* + Provide customers with the ability to add to or remove from the cart.
  + Allow the manager to manage the availability of items on the menu.
  + Allow sign-ups and logins to separate customer and manager controls on the website

## Design Rationale

* + User-friendly layout to navigate through the website.

# Elaboration

## Analysis Classes

* + User – Customers that place orders
  + Order – Selection of items from the menu that customers create
  + Items – Food choices on the menu
  + Payment – Payment methods such as card, cash, PayPal, Samsung Pay, Google Pay, Apple Pay

## Attributes

* + Customer Name – Identifies the customer
  + Order Date – Date and time of when the order is placed
  + Price – The monetary value of each item
  + Items – Food on the menu that customers can select
  + Order Number – Unique number identifies the order of a customer
  + Total – The total monetary value of an order
  + Receipt – Printable page containing order information

## Services

* + Menu Management
    - addItem(item) – Customer can add item to the cart.
    - removeItem(item) – Customer can remove item from the cart.
    - addSides(side)– Customer can add sides to item.
    - removeSides(side)– Customer can remove sides to item.
    - setItemAvailability(item) - Manager can enable/disable item on the menu based on availability
    - setSidesAvailability(side, item) - Manager can enable/disable sides of the item based on availability
    - changePrice(item, price) – Manager can change the price of an item on the menu
    - viewMenu() – Customer and manager can view the menu
    - closeMenu() – Customer and manager can close/hide the menu after finished with viewing
  + Order Management
    - placeOrder()– Customer can place the order
    - viewOrder(orderNumber)– Customer and manager can view the order/receipt
    - setOrderNumber()– Used by the system to generate a number for an order
    - setTip(amount)– Customer can set tip in a dollar amount or a percentage amount
  + Other
    - printReceipt() – Customer and manager can view and print the receipt of the order
    - setPaymentMethod(payment)– Customer can set the payment method

## Constraints

* + Cost
    - GitHub pages (free)
    - Developers (free)
  + Business Rules
    - Finish by December 13, 2023
  + Technical/Performance Criteria
    - User-friendly
    - Hosted on GitHub
    - Fast

## Mini-Specifications

* + No hardware required except for a device that can access the internet. Everything is online as this is a website.

## Normal Requirements

* + Login screen – Users should be able to log into the website as either a customer or the manager.
  + Sign-up screen – Customers should be able to create an account.
  + Reset password screen – Users should be able to recover their account if they forgot their password.
  + Menu browsing – Users should be able to browse the menu. They should be able to see the categories, item names under the categories, prices, images, and toppings.
  + Payment Option – Users should be able to select payment option such as cash, card.
  + Add/remove to cart – Users should be able to add or remove items and toppings from the cart.
  + Print receipt – Users should be able to access a printable receipt.

## Expected Requirements

* + Secure login – Logging in should be secure. Passwords are hashed to achieve this.

## Exciting Requirements

* + Payment Options – Users can select payment options besides cash or card such as PayPal, Samsung Pay, Google Pay Apple Pay.

## Use Case Diagram

A screenshot of a diagram

Description automatically generated

## A diagram of a company Description automatically generatedActivity Diagram

# Validation

* + The website should be user-friendly. Simply add/remove items from the cart with the press of a button.

# Tools

* Trello
* Git
* GitHub
* JavaScript
* HTML
* CSS
* Creately – creating diagrams
* Visual Studio Code
* Microsoft Word
* Microsoft PowerPoint
* OpenAI
  + ChatGPT – Ideas & concepts for items and categories on the menu
  + DALL-E – Logo image
  + Gencraft – menu images
* Microsoft Bing image generator - an image for menu

# References

* PowerPoint/slideshows from CSET115
* W3Schools
* Stack Overflow
* [Hype4.Academy](https://hype4.academy/tools/glassmorphism-generator) for Glass morphism styling
* Password hashing - <https://gist.github.com/iperelivskiy/4110988>
* Card number validation - <https://github.com/braintree/card-validator/blob/main/src/luhn-10.js>
* Menu toppings
  + <https://sliceofjess.com/grilled-salmon-salad-with-citrus-vinaigrette/>
  + <https://www.foodnetwork.com/recipes/rachael-ray/quinoa-and-vegetable-stuffed-peppers-recipe-2120671>
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  + [https://brightly.eco/blog/hibiscus-water-recipe](https://brightly.eco/blog/hibiscus-water-recipe%5C)
  + <https://www.spabettie.com/spicy-mango-tango-smoothie/>
  + <https://plantbasedfolk.com/easy-sparkling-homemade-basil-lemonade/#ingredients-youll-need>
  + https://www.easyanddelish.com/almond-milk-matcha-latte-recipe/