

Eclectic Eats Haven

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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.
  + Secure – the website should be secure. The user password will be hashed.

# 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://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/