COMP 2920 : Software Architecture & Design
Assignment 4
4+1 Model report

DELIVERY FOOD SERVICE to VAN CITY

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CONTENT PAGE

STAGE 1

Top-level objectives, differentiators, target customers, and scope of your product, competitive analysis, and indicate what is novel about your product.

The main objective is to create a platform where a lot of restaurants and cafés in the **Greater Vancouver Area** put together in a website so that the customers will be able to see all their options according to their demands and order food for delivery.

Anyone can be a customer, but this system is created for customers who like to handle their business online, who do not like to order food on the phone or who are fed up waiting on the phone line to order food. What is different about our system is the instead of searching the restaurant's website pages separately, our website will include them all with their menus, discounts and the restaurants' information so that the customer can find out about different restaurants or cafés and try out different kinds of food.

America has "Uber Food" which allows you to find a driver for picking your take out and deliver it to your house, which carries similar features but it is not the same thing. Customers still must come up with a restaurant by themselves and order food. What is different about our system is that there has never been a platform combining all restaurants and cafés which are able the deliver in Canada.

Our system can be made because there are a lot of restaurants which can delivery in Great Vancouver Area, the technology of the system depends on the connections within its customers and its restaurants. Our website is like a city only based on restaurants and cafés and our system is a bridge between the city and the customers. Our idea is based on from a system called "Yemek Sepeti" which was created in Turkey.

Product architecture, high level the components / modules that interact in the system, implementation, functionality, technical point of view, languages/toolkits, special quality and domain requirements

It will be a Client-Server based architecture. After the customer put their order, the order will be transferred to the restaurant's database in minutes. That's why restaurant's online ordering database, customer's' account with their information in it are our high-level components.

How this system will function is that the customer has to create an account with their information in it. Restaurants must create an account too . With the accounts restaurants can control their own webpage which will be uploaded in our system and customers can go through those website, explore their options and order food. The food they order, it goes to a check out basket and that's where they finalize their order. Customers can pay either online or at the door. After the checkout, information about the order transfers to the restaurant's original delivery database and our systems gets 3% commission from each order we provide. Because it is not an app, it is a website based on HTML, CSS and Javascript.

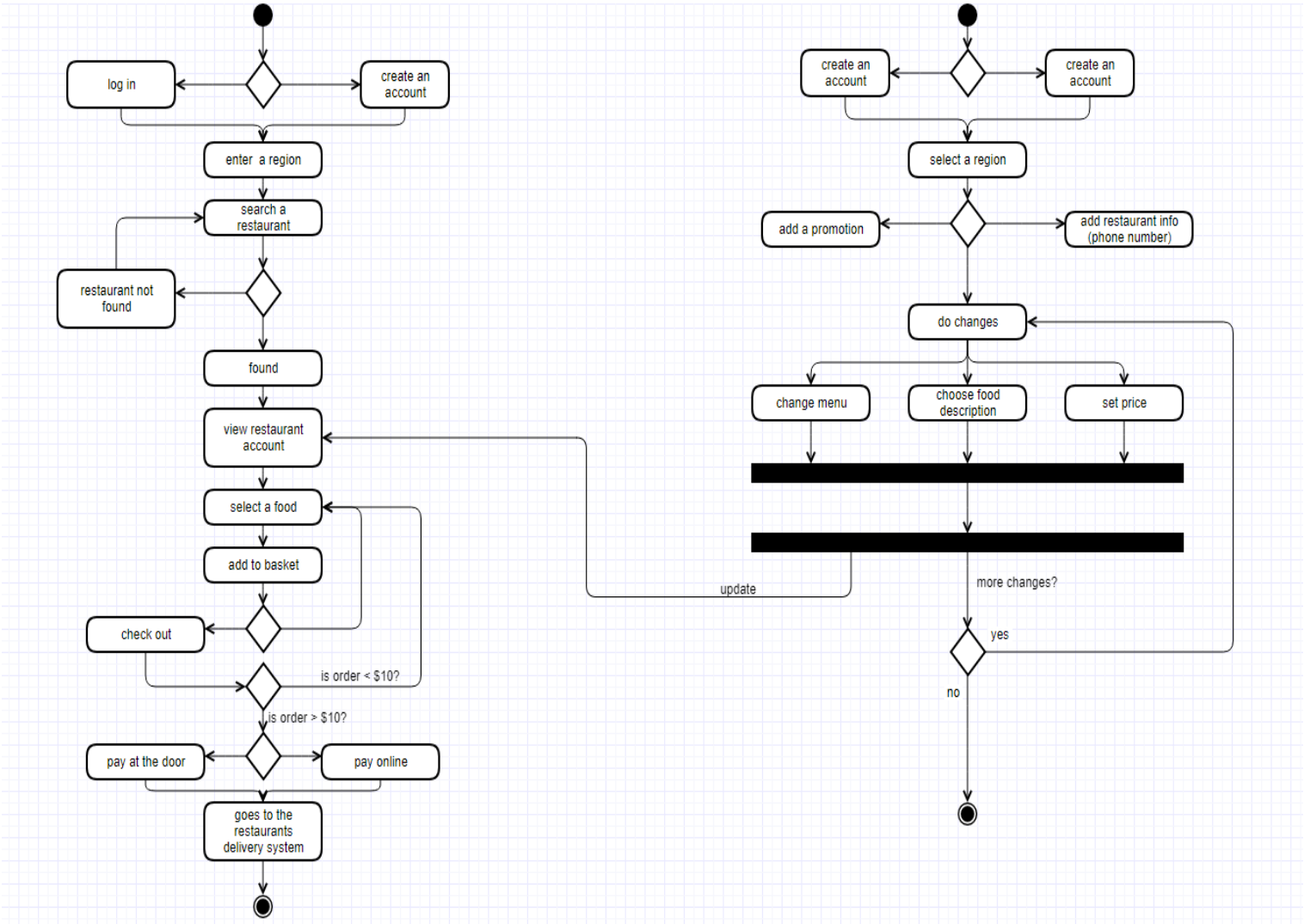
Challenges and Risks

The serious challenge is the system can not be existed in small cities and towns because only a limited number of restaurants can deliver, and those restaurants might already be in public's knowledge so there is no need to create a system for expanding the options of the customers because of the the limited amount of restaurants they are already aware of. Investing bigger cities with a lot of restaurants is the only option to avoid creating a non-profit business.

STAGE 2

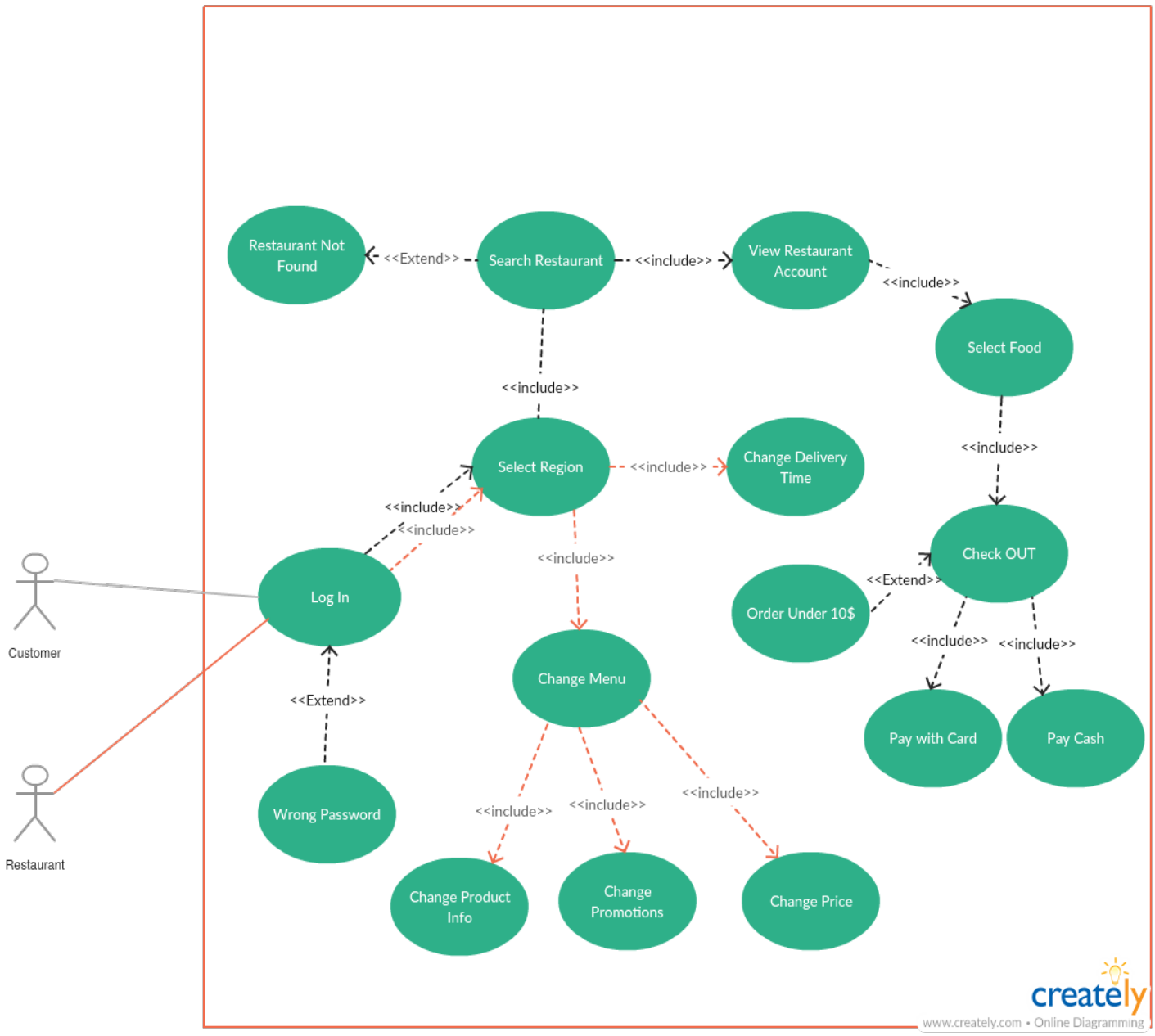
Use cases and Activity Diagram

Activity Diagram

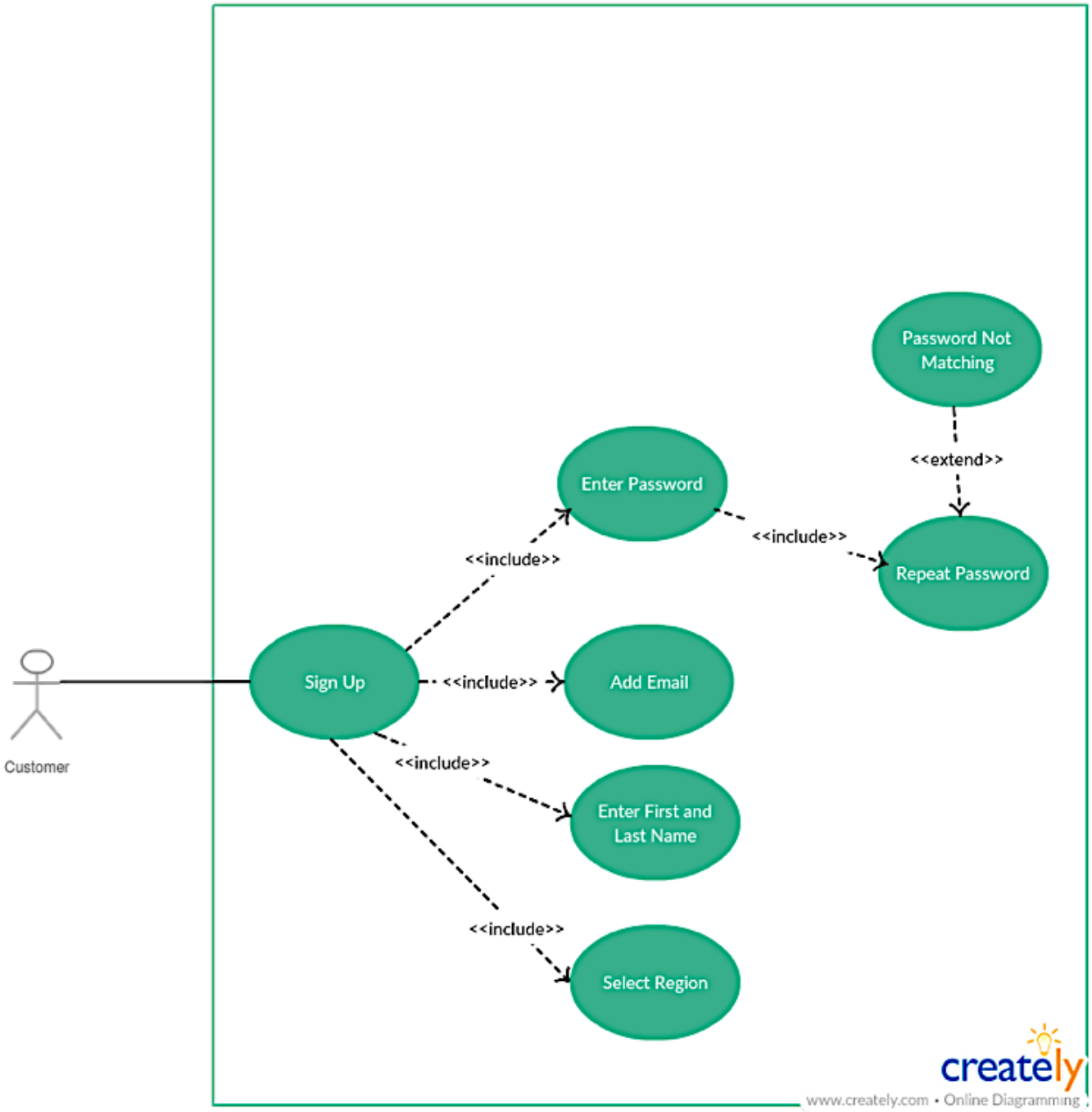


Use cases

6) Overall Use Case of the system



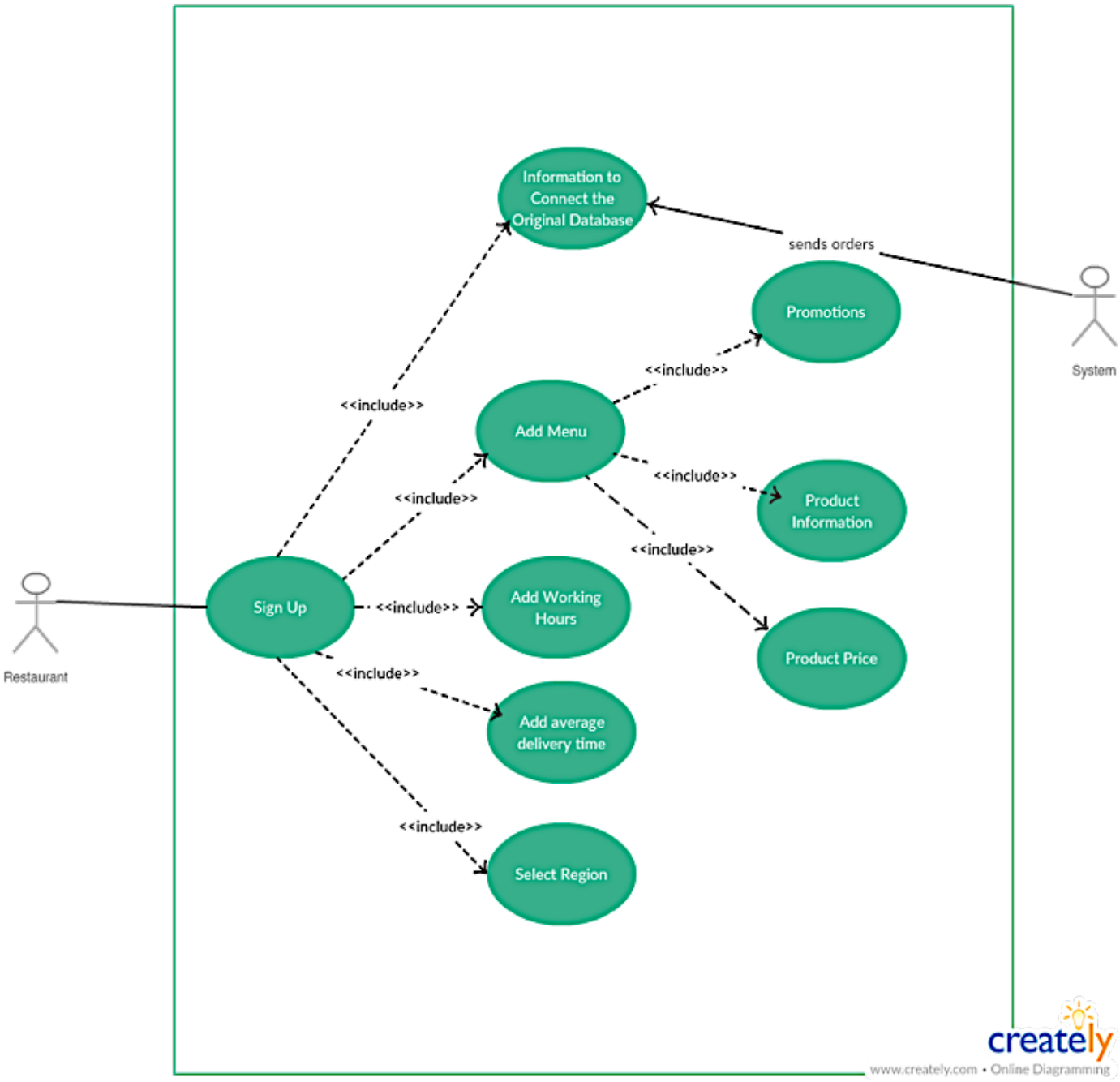
1) Costumer creates a new account



Use case table 1

Use case number and name	**1. User creates a new account**
Objective	User has an account on the website to be able to order food
Primary Actor	User
Secondary Actor(s)	System
Trigger	User enters website and selects “Register/create an account”
Precondition	Website main page in display
Post condition	User can search different restaurants and cuisines and order food
Main Success Scenario	1. User creates and account successfully and is able to navigate through the website and order food successfully
Performance time	5 min to introduce personal info and confirm account.
Frequency	One account at a time per computer (one account per email)
Normal flow	1. 1User enters website 2. Selects create an account 3. Inputs all personal information required 4. Creates a password 5. Confirmation email is sent 6. User confirms account using link in email 7. User has an account and is able to navigate the website and order food
Alternate flow	- When user enters personal info something is missing- error is displayed - User corrects errors - Password does not fill the requirements - User changes password - Confirmation email never received - User can request email to be sent again

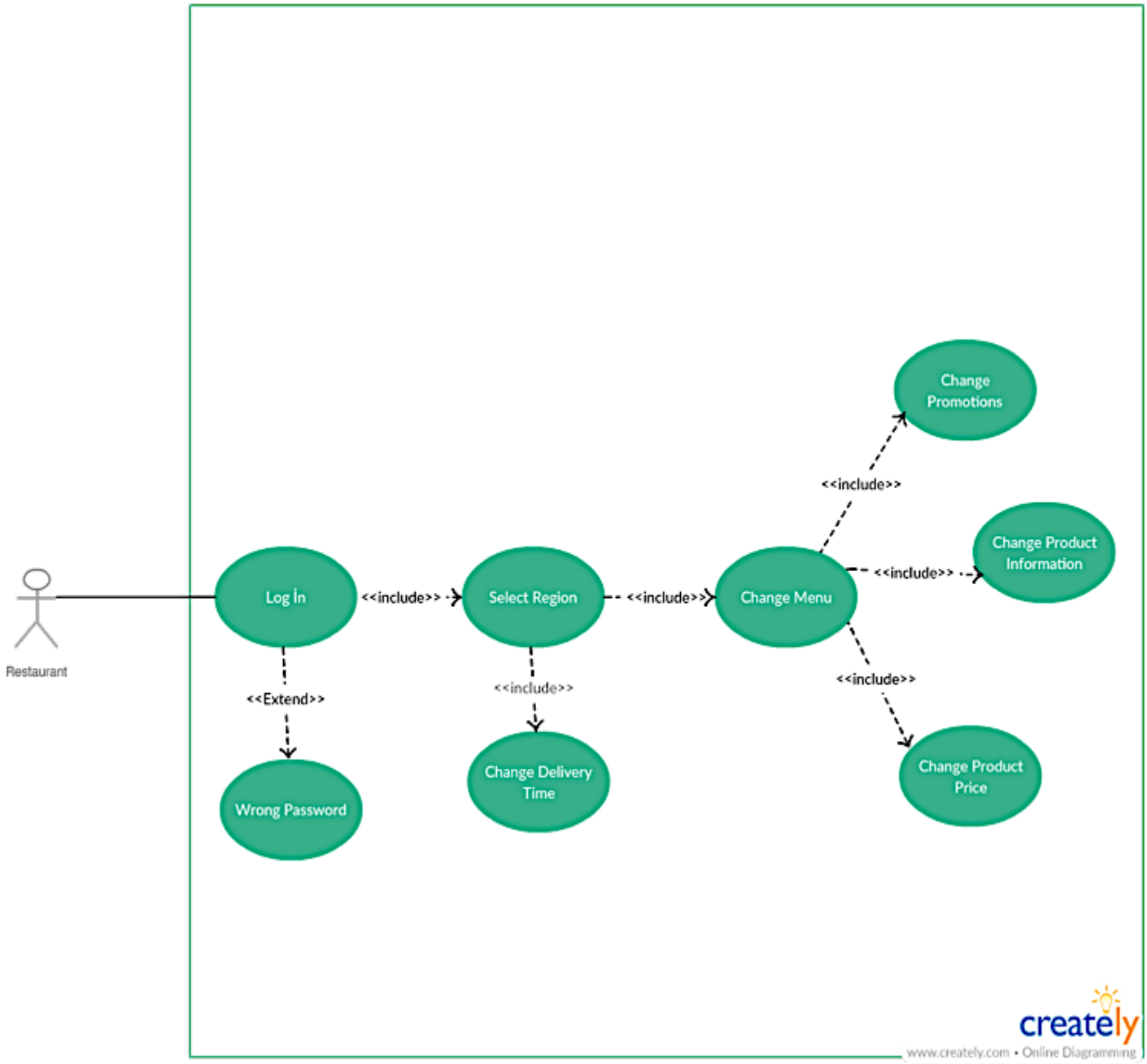
2) Restaurant creates an Account to be able to provide food delivery to customers.



Use case table 2

Use case number and name	**2. Restaurant creates an account**
Objective	Restaurant has an account to be able to provide food services to more customers
Primary Actor	Restaurant
Secondary Actor(s)	System
Trigger	Restaurants want to join website to be able to provide delivery food services
Precondition	Restaurant main page displayed
Post condition	Restaurant is able to offer their services through the website delivery system and can add or change the Menu and promotions.
Main Success Scenario	1. Restaurant is able to offer their services through the website delivery system. 2. Restaurant can add or change the Menu and promotions on their account.
Performance time	15min to create account and Restaurant provides details and Menu
Frequency	One account at a time per computer (one account per email) Only one account per restaurant
Normal flow	1. Restaurant representative enters website 2. Selects create an account 3. Inputs all Restaurants information required 4. Creates a password 5. Confirmation email is sent 6. User confirms account using link in email 7. Representative has an account and is able to add and change Menu and discounts.
Alternate flow	- When representative enters Restaurants info something is missing- error is displayed - User representative corrects errors - Password does not fill the requirements - User representative changes password - Confirmation email never received - User can request email to be sent again

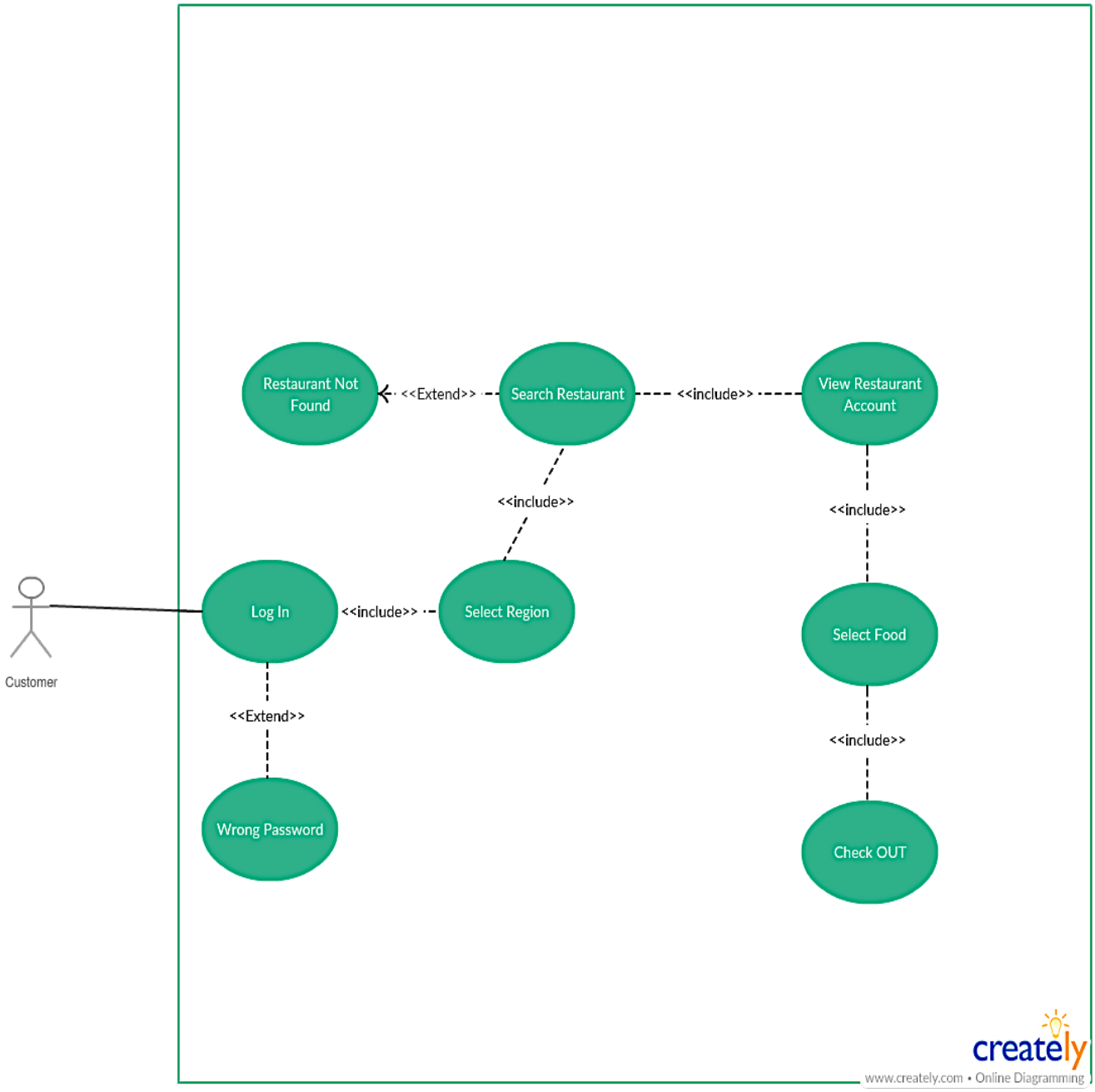
3) Restaurant Login into website



Use Case table 3

Use case number and name	**3. Restaurant Login to website**
Objective	Restaurant access their account where they can edit their menu and promotions.
Primary Actor	Restaurant
Secondary Actor(s)	System
Trigger	Restaurant wants to either 1) Make changes to the Menu (add or delete items) 2) Add or delete Promotions and discounts
Precondition	Account remains the way it was since they last logged in
Post condition	Changes to Menu and/or promotions are made
Main Success Scenario	1. Changes and additions are made successfully
Performance time	5min min
Frequency	Unlimited changes can be made
Normal flow	1. User enters website 2. Clicks on login 3. Enters username and password 4. Access account 5. Menu, ratings and option to make changes to menu and promotions is displayed
Alternate flow	- Username or password is wrong, error is displayed - User can fix it or click forgot password to reset password

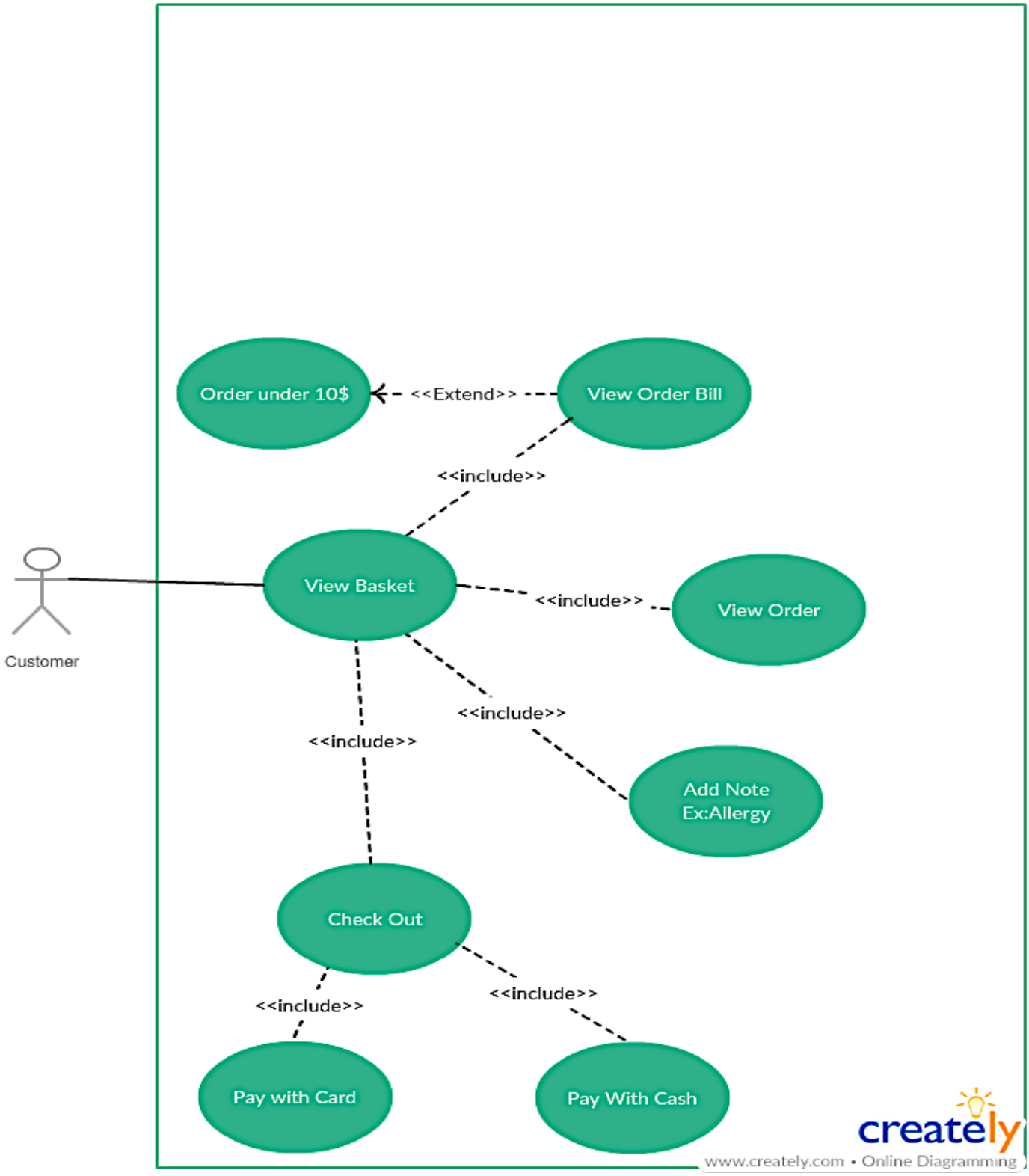
4) Costumer Login into website to be able to order food.



Use case table 4

Use case number and name	**4. Customer Login**
Objective	Customer logins in order to seek for a restaurant and make an order
Primary Actor	User Customer
Secondary Actor(s)	System
Trigger	Customer opens the website and clicks “login”
Precondition	The initial website’ page is displayed
Post condition	Customer can select region, restaurant and order food
Main Success Scenario	1. Customer successfully logins and uses the website to order food
Performance time	1 Min to login
Frequency	One account per computer
Normal flow	1) Customer/user types in login name 2) Types in the password 3) Logs into website successfully 4) Can see restaurants and order food
Alternate flow	- If customer enters wrong password or username an error displays and asks him to try one more time - Customer can change his password with the “forgot password” option - Customer may check mark the part “remember me”

5) Customer Checkout process to place order



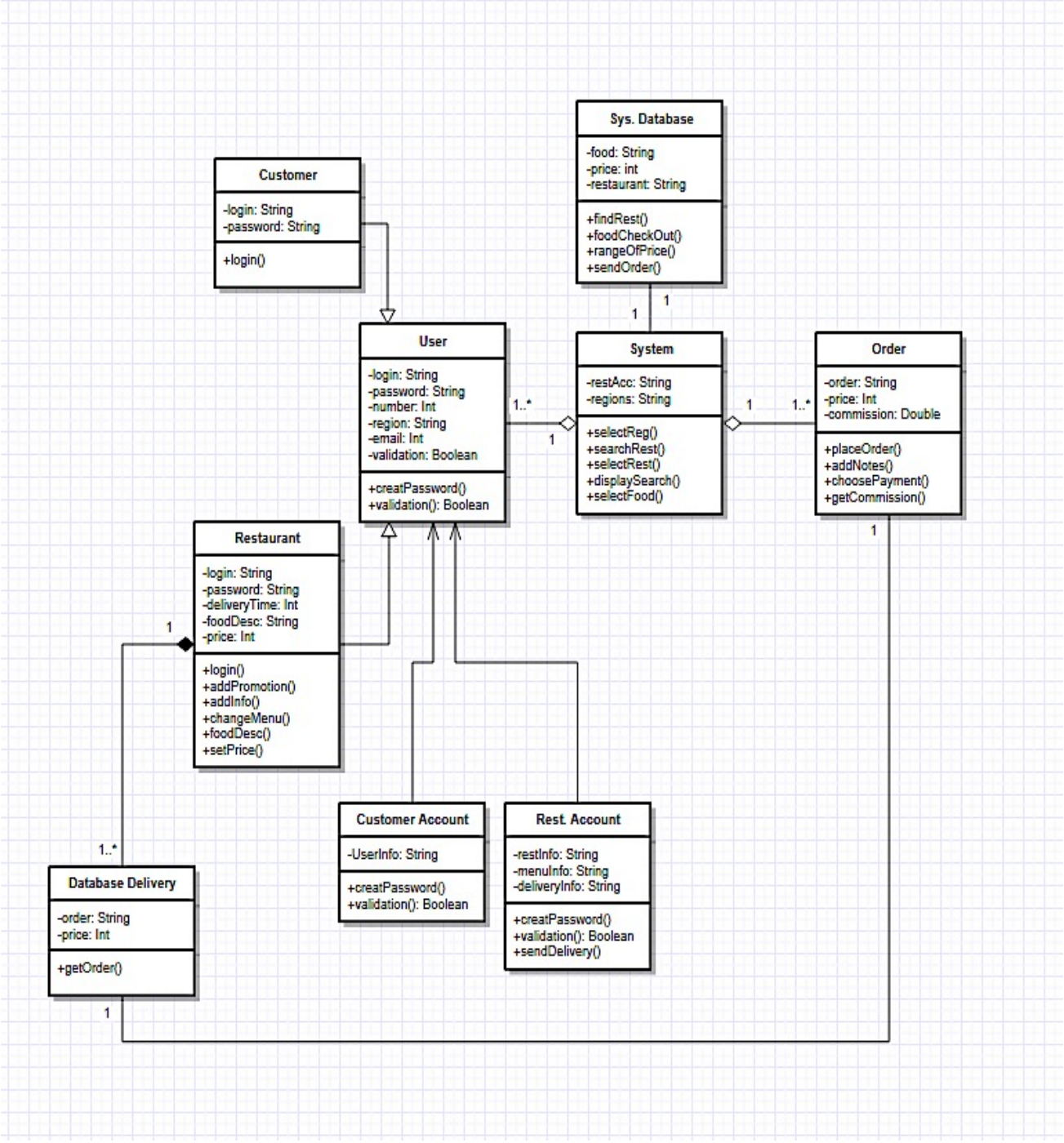
Use case table 5

Use case number and name	**5. Customer Checkout**
Objective	User has made his order, then he checks it out adding notes and choosing a payment method. Order is sent to Restaurant's delivery system
Primary Actor	Customer user
Secondary Actor(s)	The checkout system
Trigger	User adds food to basket and clicks "check out"
Precondition	Basket with food and total price
Post condition	user adds notes to the order, chooses payment type and checks it out for delivery. Order is sent to Restaurant's delivery system
Main Success Scenario	1. Customer places his order, pays for it and receives his food 2. Customer places order, receives a confirmation email and pays at the door
Performance time	4 minutes
Frequency	One check out with all the food the user wants at a time
Normal flow	1) User places order 2) Adds notes for the delivery or about the order 3) Pays online or chooses to pay at the door 4) Waits the order
Alternate flow	- Customer can add/delete any item from the order - Can add a discount coupon - Can ask to delivery his food in an hour or more - Can save his order for later on - If customer wants to cancel order, calls website's call center

STAGE 3

Class Diagram and Sequence Diagrams

CLASS DIAGRAM



SEQUENCE DIAGRAMS

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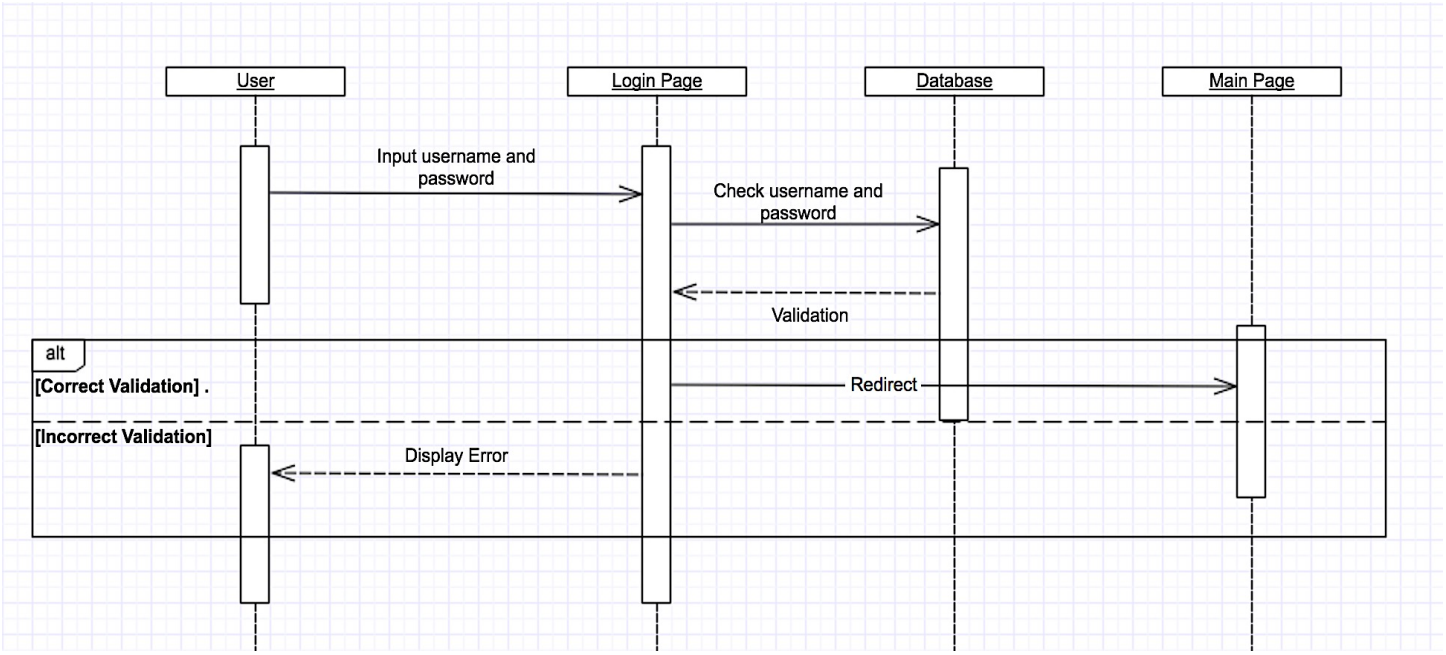
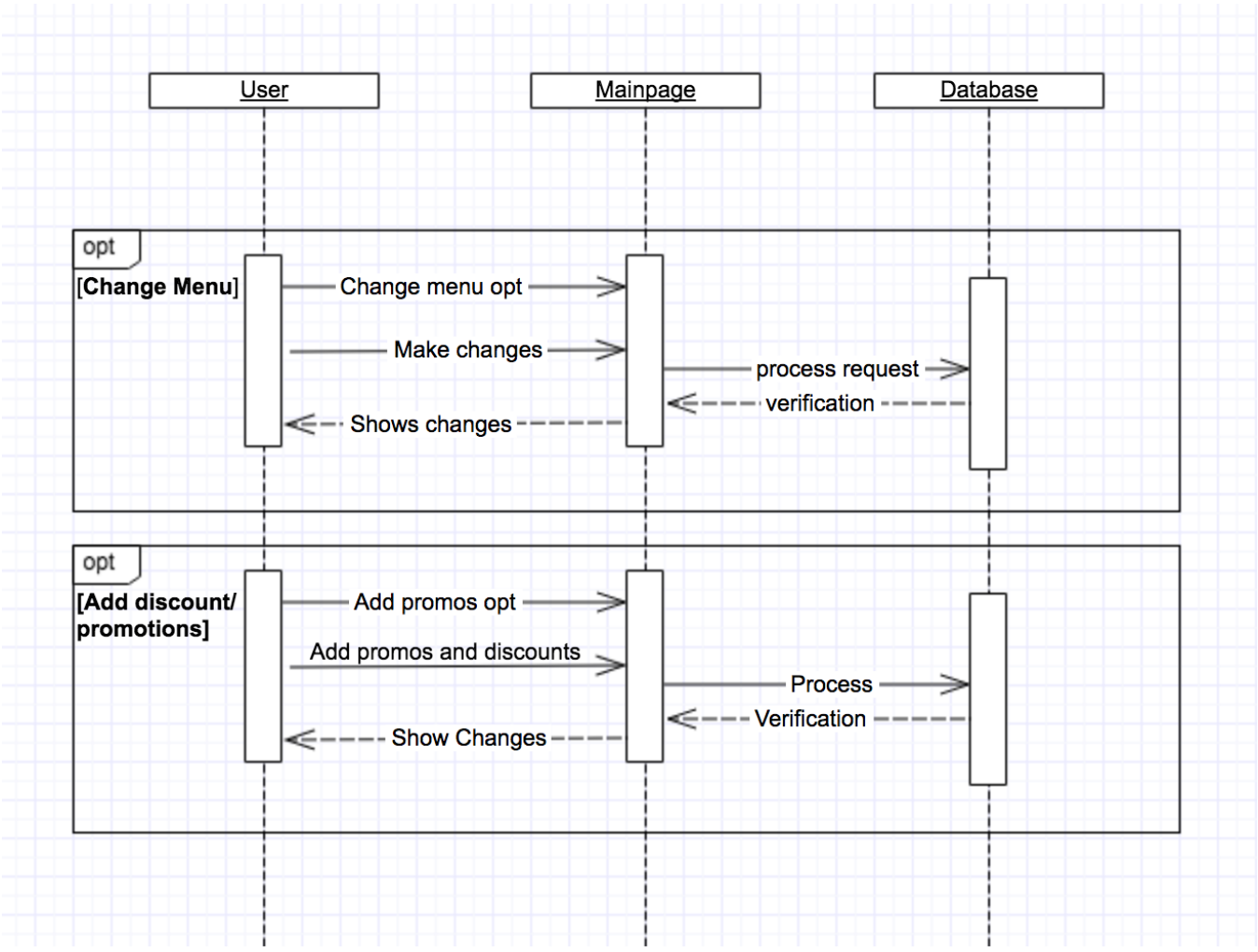
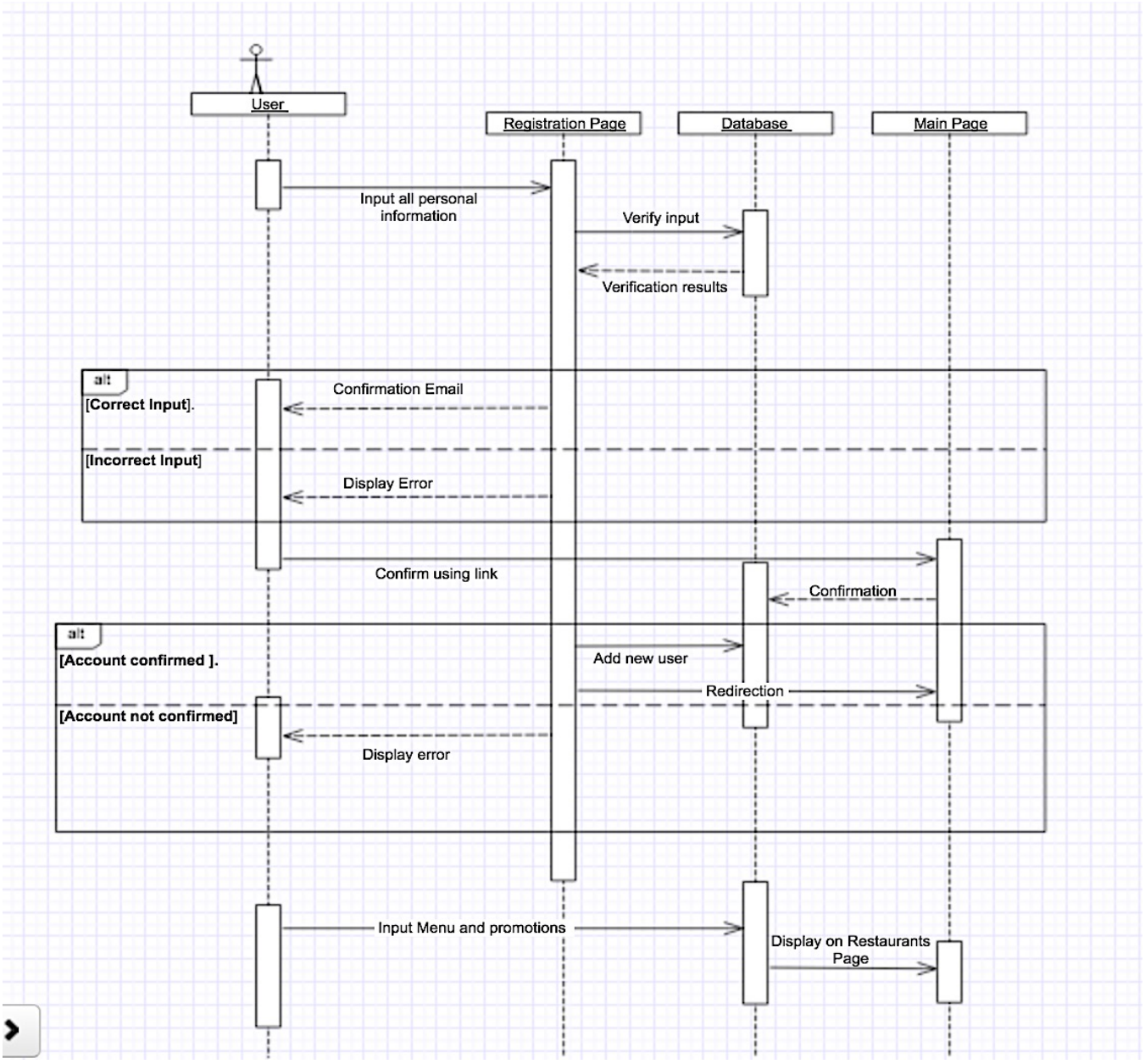
1) Login Costumer



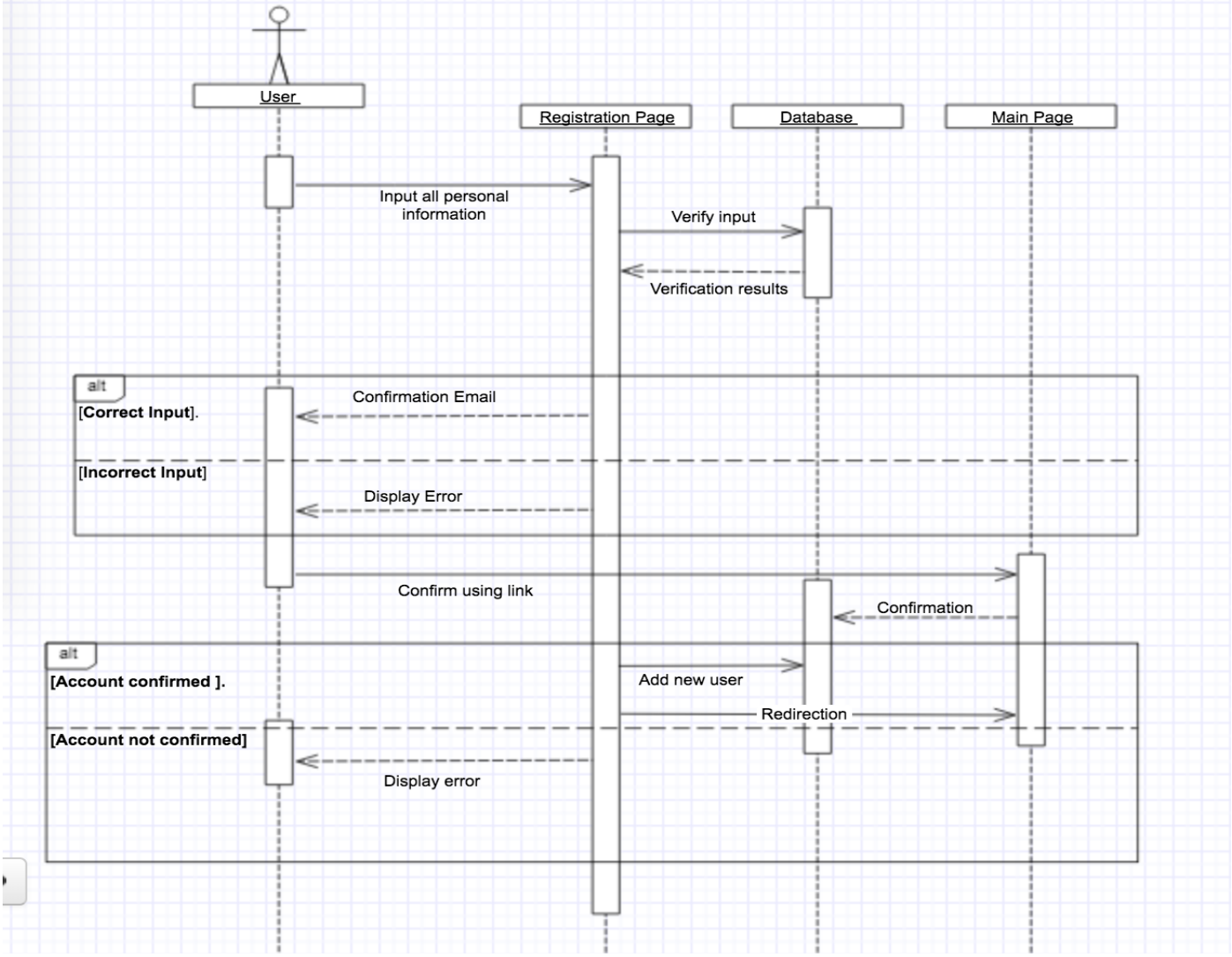
2) Restaurant login



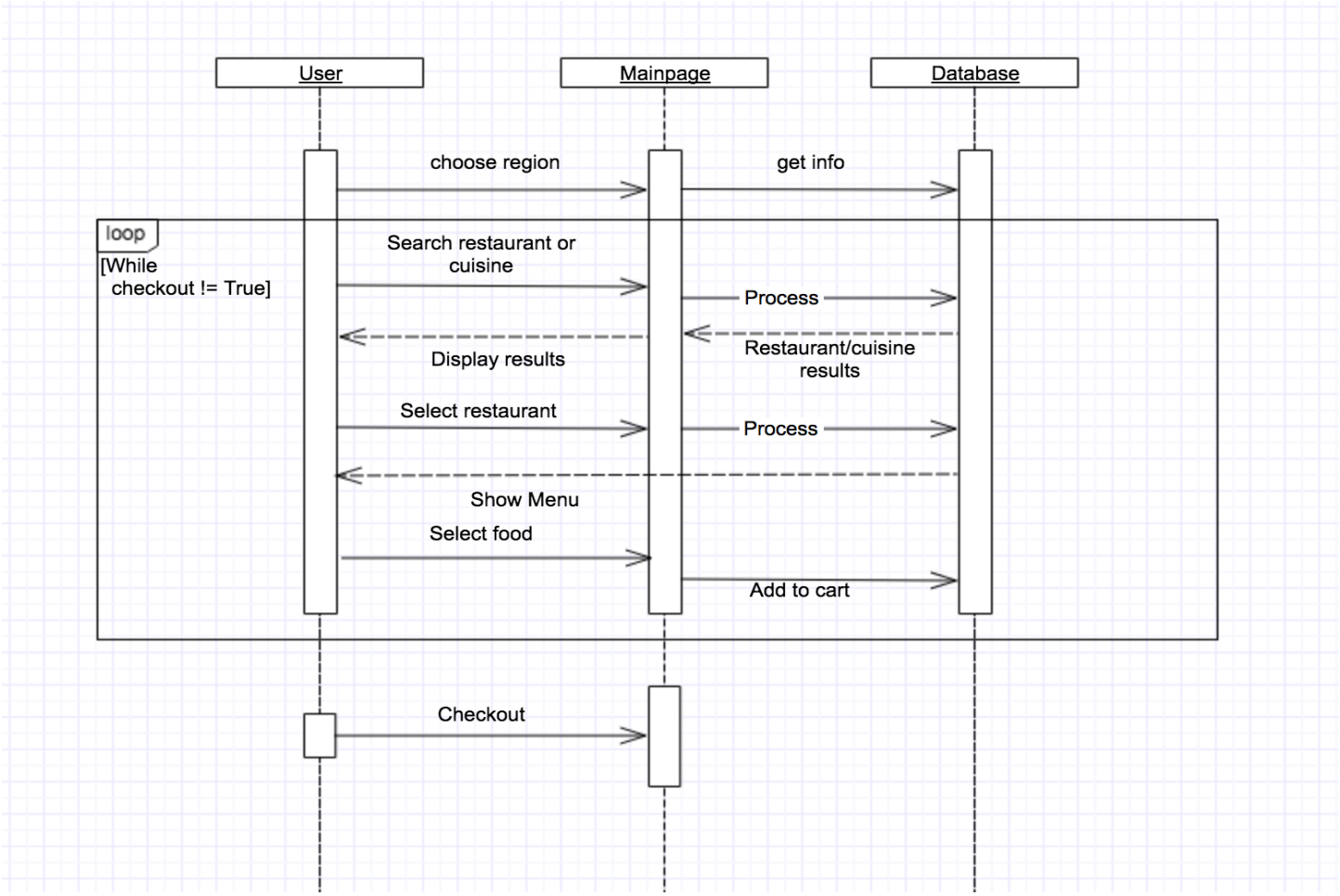
3) Restaurant creates an Account



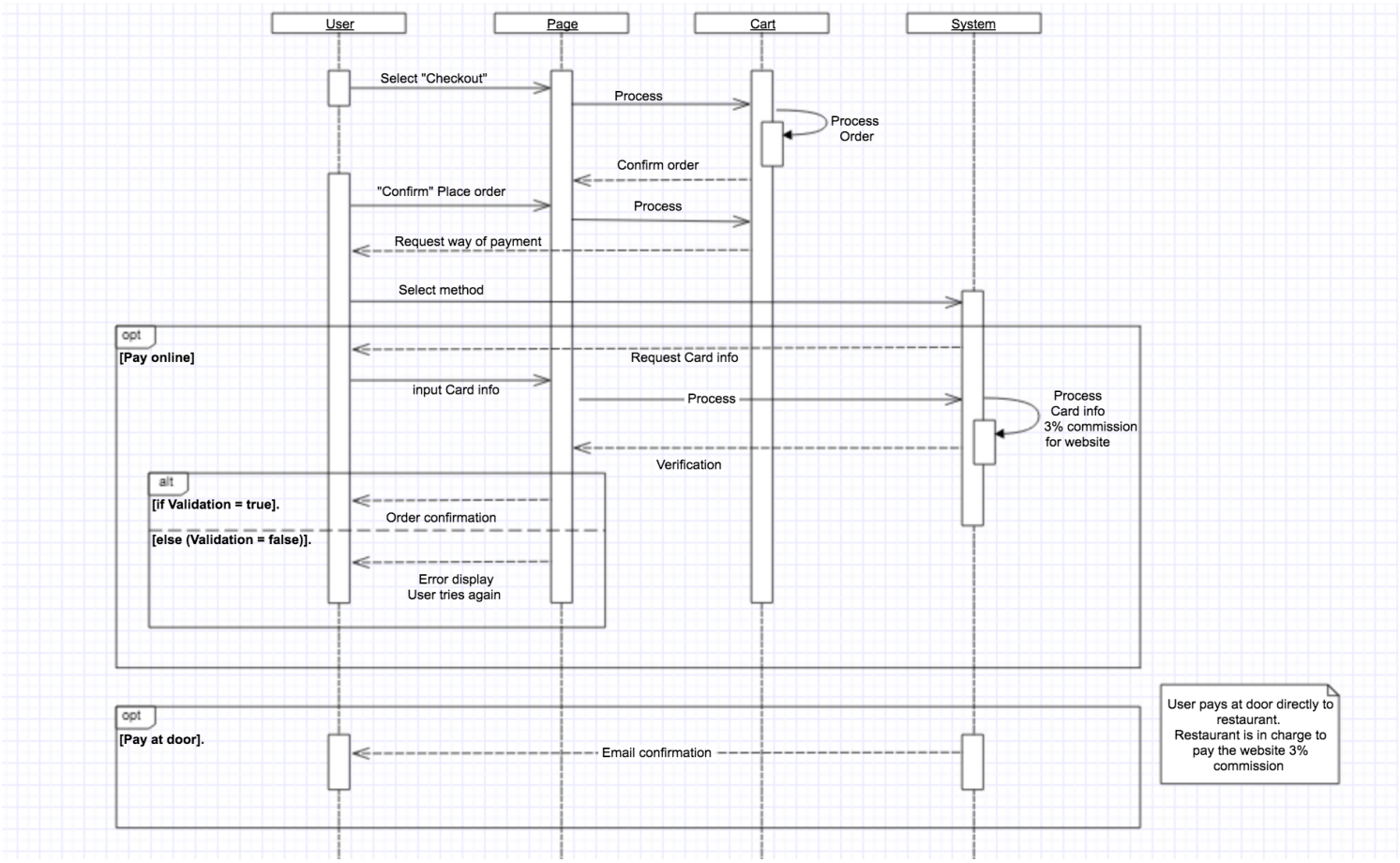
4) New user creates an account to be able to order food for delivery



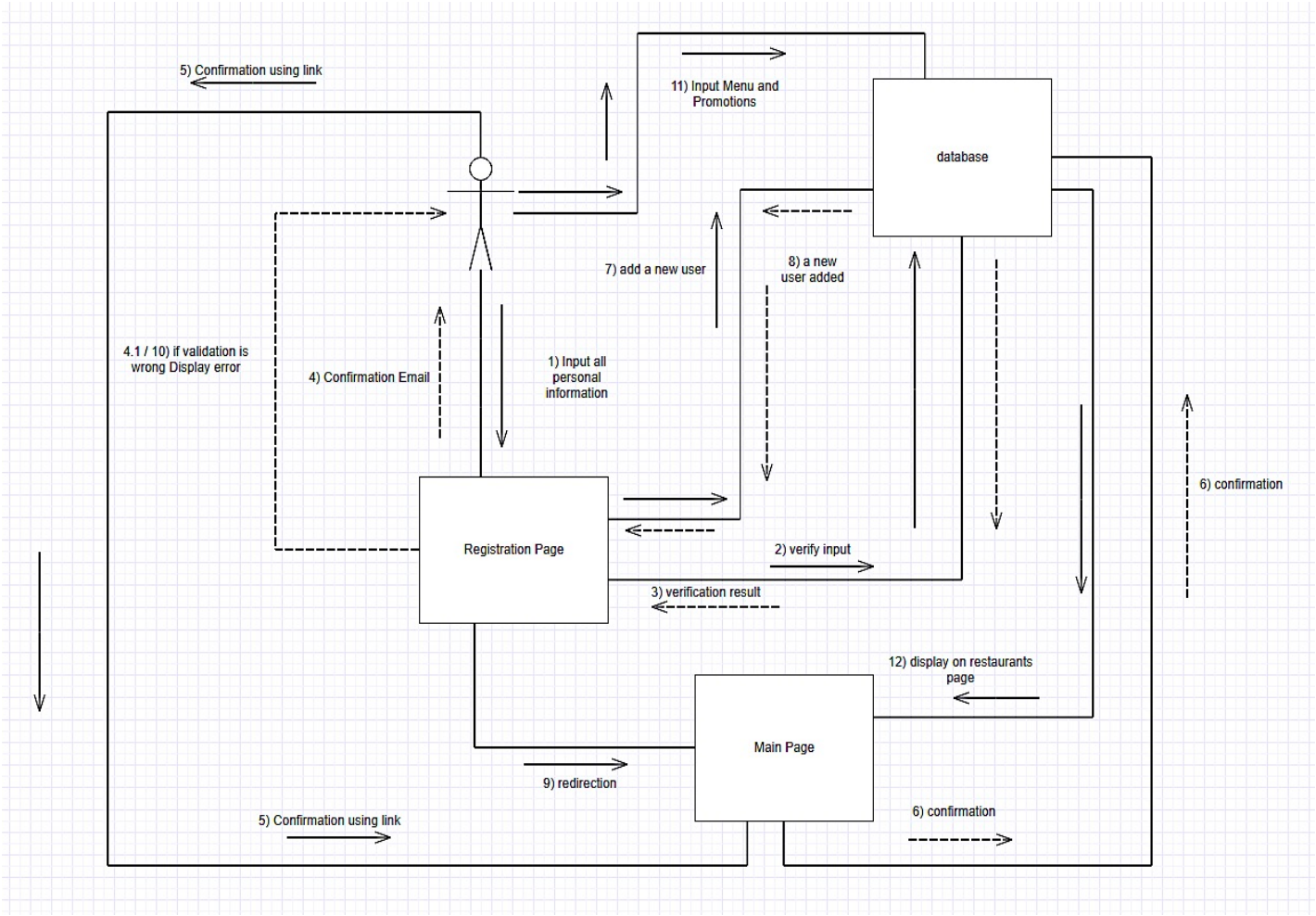
5) Costumer shopping and browsing for food

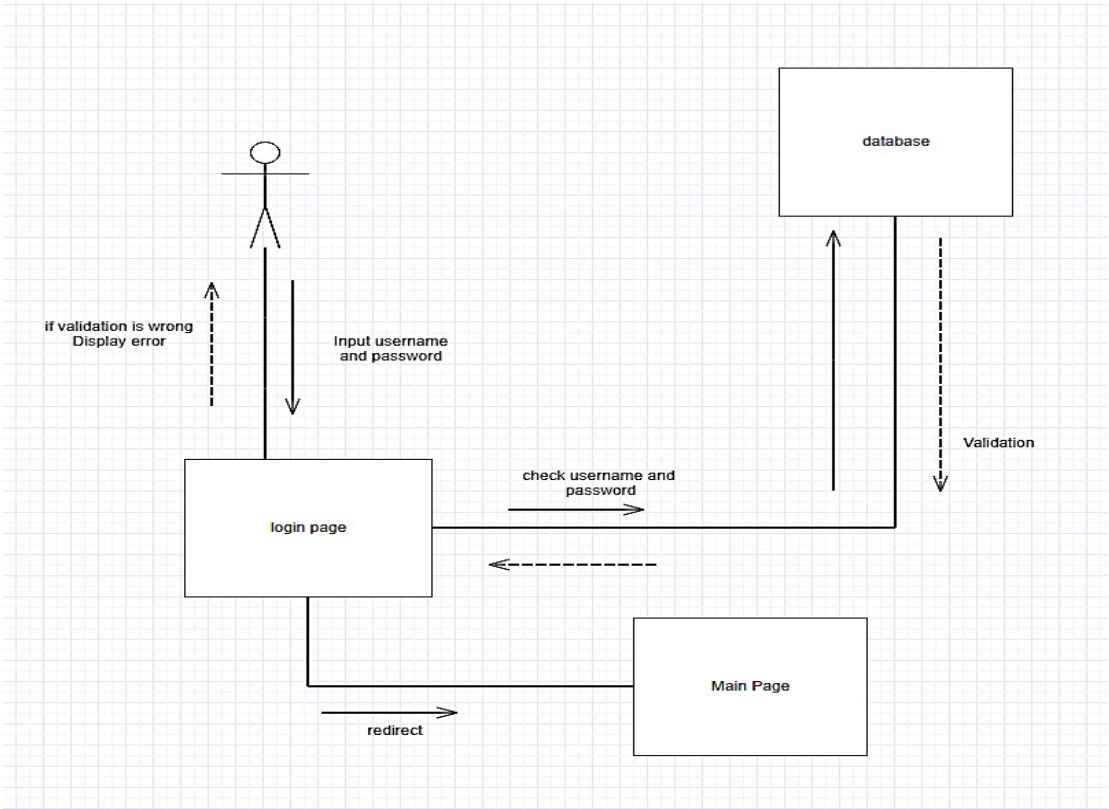


6) Basket checkout and order being placed

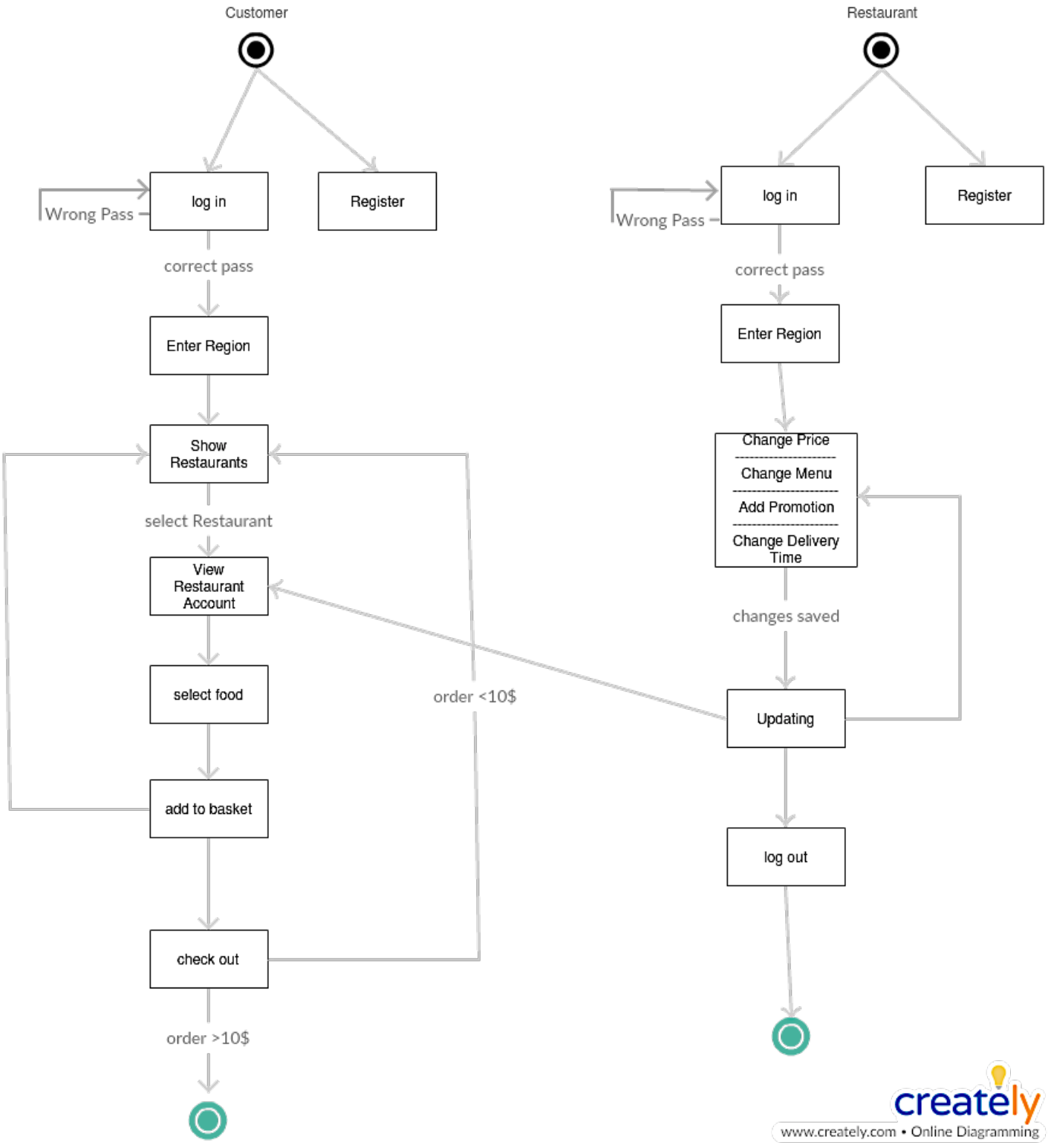


COMMUNICATION DIAGRAMS



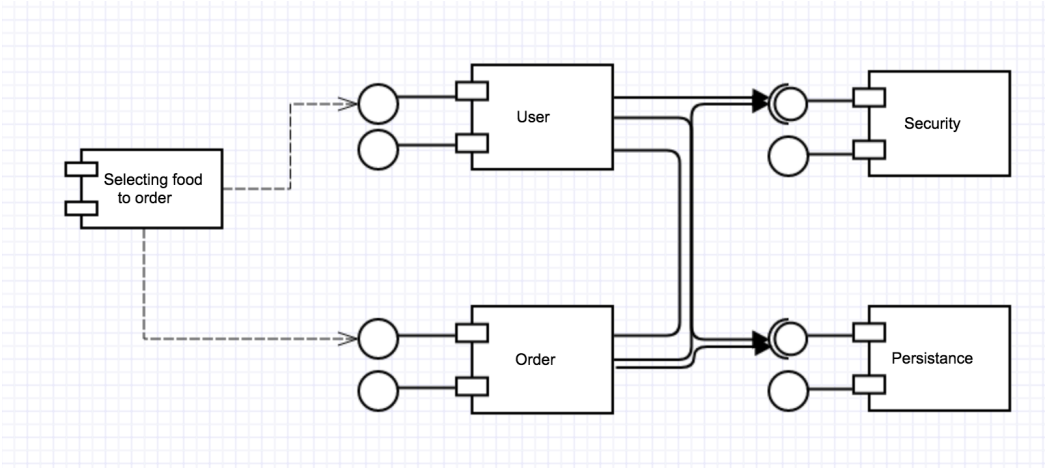


STATE DIAGRAM

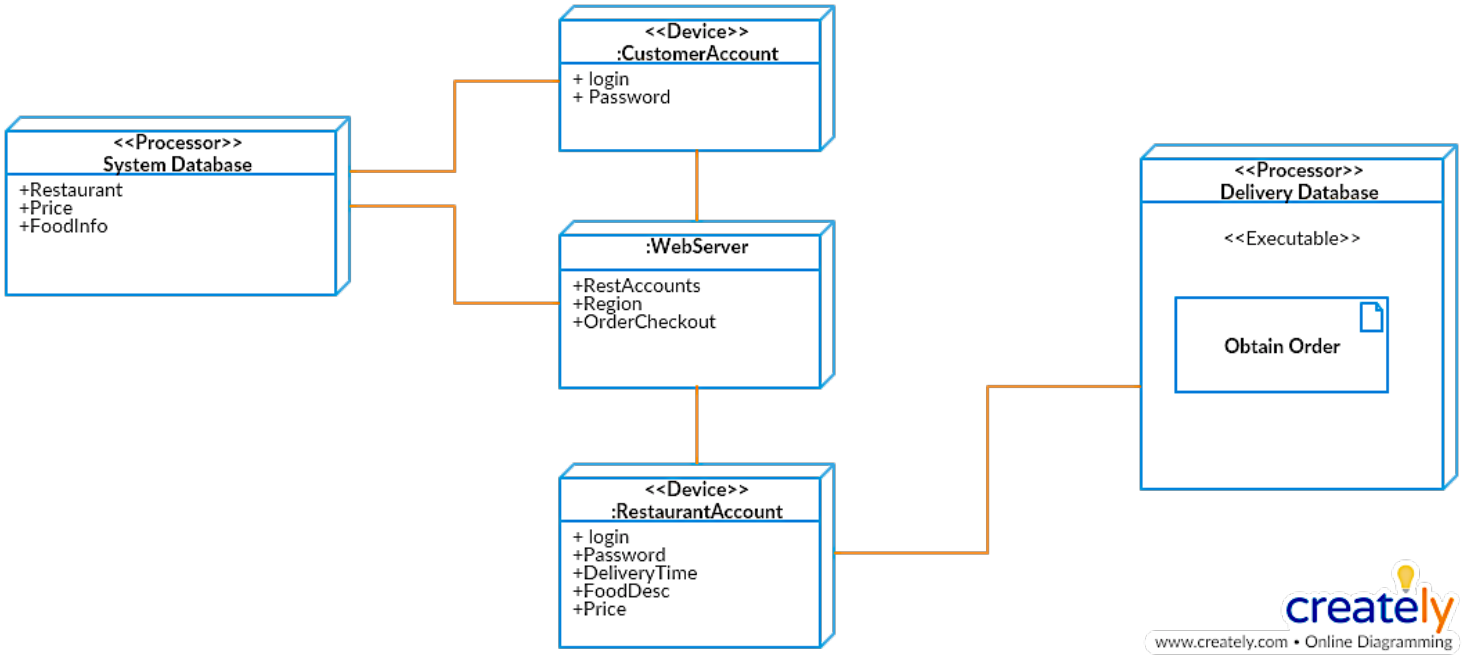


STAGE 4

COMPONENT DIAGRAM



DEPLOYMENT DIAGRAM



STAGE 5

4+1

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