Risk Analysis

This is the risk analysis, which contains an evaluation of all the use cases that will label their risk factor into a few categories. Risks are numbered below, detailed with the primary actor, the risk level and the potential impact that may follow. They were all assigned either a “high” or “low” factor that would determine the potential impact. Anything that was identified with a “high” risk factor was addressed a way to remedy the situation and keep the business running efficiently and effectively.

1) **Risk 1**: Create Customer
    a) **Primary Actor**: New Customer
    b) **Risk Level:** High
    c) **Potential Impact:** Creating a new customer in the system will have a high risk and a potential impact on the operation at hand, as this will take more time to do so, which is why we identified this as a potential impact. Receiving customer information will be the most critical and time consuming.
    d) **Addressing High Risk:** Ways to address this risk would be a fast and reliable system that allows for easy customer creation. Greeting the customer and gathering their information can be time consuming for Karoline. With a system that is able to handle all the information, keep records/receipts organized, and is easily obtainable will lead to an overall better experience not only for the customer but Karoline as well.
2) **Risk 2**: Update Customer
    a) **Primary Actor**: Existing Customer
    b) **Risk Level:** Low

c) **Potential Impact:** Updating a customer in the system would be a low risk as this would not be as time consuming as creating a customer, updates will be made in a timely and efficient manner.

3) **Risk 3**: Delete Customer
    a) **Primary Actor**: Karoline
    b) **Risk Level:** High
    c) **Potential Impact:** Deleting a customer from the system would not cause a major impact if done correctly because then there would be an accurate number of customers in the database. It's labeled as high risk because if a customer was accidentally deleted Karoline would lose their information as well as the customer wouldn't be able to retrieve past order information.
    d) Addressing High Risk: Allowing Karoline access to delete a customer is a safer option that prevents accidental deletion from a customer.
4) **Risk 4:** Add Supplies
    a) **Primary Actor:** Karoline
    b) **Risk Level:** High
    c) **Potential Impact:** The system needs to allow Karoline to add new supplies for tracking purposes.
    d) **Addressing High Risk:** Adding supplies and creating an inventory will be much needed for this business, the food industry can be difficult at times to work in but being organized and well stocked on materials and ingredients will lead to a better and more efficient operation. This will decrease time and will ultimately speed up

the process. Preparation is essential to having an oriented design and adding supplies for various orders.

5) **Risk 5:** Update Supplies
    a) **Primary Actor:** Karoline
    b) **Risk Level:** Low
    c) **Potential Impact:** The system needs to allow Karoline to update supply amounts if they increase or decrease.
6) **Risk 6:** Delete Supplies
    a) **Primary Actor:** Karoline
    b) **Risk Level:** Low
    c) **Potential Impact:** The system needs to allow Karoline the ability to delete supplies from database that she no longer has or isn't using in her baking processes. Deleting supplies would be considered a low risk, this wouldn't take as much time and wouldn't affect the overall operation as much.
7) **Risk 7:** Create Order
    a) **Primary Actor:** Customer
    b) **Risk Level:** High
    c) **Potential Impact:** The system needs to allow the customer the ability to create an order and create a new order record in the database. Orders are essential to Karoline's business, thus if a customer is unable to place an order, Karoline can't make money.
    d) **Addressing High Risk:** The customer would need a user-friendly design that will allow them to create an order will no level of difficulty. Having a system that is

reliable and accurate on the product descriptions will lead to a better experience for both the customer and Karoline.

8) **Risk 8:** Update Order
    a) **Primary Actor:** Karoline
    b) **Risk Level:** High
    c) **Potential Impact:** The system needs to allow Karoline the ability to change the customer's order if necessary and update the related order record in the database. If an order is not accurate Karoline won't be able to meet customer needs and could potentially lose business.
    d) Addressing High Risk: The system needs to allow a customer the ability to contact Karoline if an order needs to be updated. If an order needs to be updated, it should be presented in a user-friendly manner to allow Karoline easy accessibility to changing it.
9) **Risk 9:** Cancel Order
    a) **Primary Actor:** Karoline
    b) **Risk Level:** High
    c) **Potential Impact:** The system needs to allow Karoline the ability to cancel the customer's order if necessary and delete that order from the database. If an order is accidentally deleted Karoline will have to contact the customer again and retrieve the previous order information. This takes time away from baking.
    d) Addressing High Risk: Allowing Karoline access to cancel an order is a safer option that prevents accidental deletion from a customer. It also keeps from a customer canceling an order and Karoline having already made their order. Thus,

it keeps her from wasting time and money on an order the customer doesn't want anymore.

10) **Risk 10:** Create Fulfillments
    a) **Primary Actor:** Karoline
    b) **Risk Level:** High
    c) **Potential Impact:** The system needs to allow Karoline the ability to create customer fulfillments in the database for efficient tracking.
    d) **Addressing High Risk:** Fulfilling orders can be a difficult task as this was listed as a high risk. Records and order tracking will help this process as this could be very time intensive and could easily throw off the operation of the business. Having an efficient fulfillment and tracking system is a must to ensuring customer satisfaction and order quality.
11) **Risk 11:** Update Fulfillments
    a) **Primary Actor:** Karoline
    b) **Risk Level:** Low
    c) **Potential Impact:** The system needs to allow Karoline the ability to update customer fulfillments in the database to make tracking easier.
12) **Risk 12:** Delete Fulfillments
    a) **Primary Actor:** Karoline
    b) **Risk Level:** Low
    c) **Potential Impact:** The system needs to provide a way for Karoline to delete customer fulfillments in the database, on either their completion or cancellation.
13) **Risk 13:** Add Fulfillment Options

a) **Primary Actor:** Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to allow Karoline the ability to add more fulfillment options to the database, if she needs to offer more.

d) **Addressing High Risk:** Being able to add fulfillment options in the system will help manage the workflow and customize orders for various customers. Karoline will be able to manage this portion and update fulfillment options as necessary with details to provide excellent service and quality control.

14) **Risk 14:** Update Fulfillment Options

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow for changes to be made to the fulfillment options her business offers.

15) **Risk 15:** Delete Fulfillment Options

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow Karoline the ability remove fulfillment options from her site and the database if need be.

16) **Risk 16:** Create Dessert Types

a) **Primary Actor:** Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to allow for Karoline to add new dessert types to the database, reflecting any new offerings Karoline may have.

d) **Addressing High Risk:** Creating dessert types will help.

17) **Risk 17:** Update Dessert Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow Karoline to update existing dessert types in the database, and have those updates reflected on the site.

18) **Risk 18:** Delete Dessert Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow Karoline to delete dessert types in the database and on her site.

19) **Risk 19:** Create Cake Types

a) **Primary Actor:** Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to allow Karoline the ability to create new types of cakes, and add those new types to the database and her site.

d) **Addressing High Risk:** The system needs scalability as her business will offer various products. She will need an interface that will allow the customer to select exactly what type of cake they want so she can fulfill their order correctly. In regards to creating the cake type, the order platform needs to be detailed and precise on delivering this information so Karoline will have no problem ensuring customer satisfaction.

20) **Risk 20:** Update Cake Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow Karoline the ability to update existing cake types to reflect changes in her offerings, and have those changes reflected in the database and her site.

21) **Risk 21:** Delete Cake Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow Karoline the ability to delete existing cake types, and have those changes reflected in the database and her site.

22) **Risk 22:** Create Dessert Flavors

a) **Primary Actor:** Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to allow Karoline the ability to create new dessert flavors, and have those new flavors entered into the database as a new flavor record, and appear on the site as a new flavor option.

d) **Addressing High Risk:** If Karoline is unable to create additional dessert flavors, the system lacks scalability in this aspect, and if she is unable to create the initial dessert flavors she offers, customers won't be able to select a desired dessert flavor and fail to submit the order. The order must have the necessary details for the customer to have a reasonable expectation for what they are ordering, and if this is not included/unable to be selected, Karoline will lose the entire order for as many customers that want to order a cake after implementation. Extensive QA

testing measures would need to be taken to ensure the system is reliable in displaying all available dessert flavors to the customer, and the CMS must be manageable by Karoline to create and add dessert flavors that she offers. The team could mock-up a guide on how to create/add dessert flavors, and refer Karoline to available support offered by the CMS.

23) **Risk 23:** Update Dessert Flavors
    a) **Primary Actor:** Karoline
    b) **Risk Level:** Low
    c) **Potential Impact:** The system needs to allow Karoline the ability to update existing dessert flavors in the database and have those changes reflected on her site.

24) **Risk 24:** Delete Dessert Flavors
    a) **Primary Actor:** Karoline
    b) **Risk Level:** Low
    c) **Potential Impact:** The system needs to allow Karoline the ability to delete dessert flavors, and have those changes reflected in the database and on her site

25) **Risk 25:** Create Flavor Types
    a) **Primary Actor:** Karoline
    b) **Risk Level:** High
    c) **Potential Impact:** The system needs to allow Karoline the ability to create new types of flavors, and those new types created in the database and shown on the site

d) **Addressing High Risk:** If Karoline is unable to create additional flavor types, the system lacks scalability in this aspect, and if she is unable to create the initial flavors types she offers, customers won't be able to select a desired type and fail to submit the order. The order must have the necessary details for the customer to have a reasonable expectation for what they are ordering, and if this is not included/unable to be selected, Karoline will lose the entire order for as many customers that want to order a cake after implementation. Extensive QA testing measures would need to be taken to ensure the system is reliable in displaying all available flavor types to the customer, and the CMS must be manageable by Karoline to create and add flavor types that she offers. The team could mock-up a guide on how to create/add flavor types, and refer Karoline to available support offered by the CMS.

26) **Risk 26:** Update Existing Flavor Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs allow for Karoline to update flavor types in the database, and have those changes reflected on her site.

27) **Risk 27:** Delete Existing Flavor Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow for Karoline to delete flavor types in the database, and have those changes reflected on her site.

28) **Risk 28:** Update Existing Desserts

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to update a customer's specific dessert and make changes in the database during any consultation that may take place.

29) **Risk 29:** Delete Existing Desserts

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to delete a customer's dessert from the database in the event the customer wishes to cancel their order.

30) **Risk 30:** Create Payment Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to create new payment type option in the event Karoline wants to accept another form of payment from customers for their orders.

31) **Risk 31:** Update Payment Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to update existing payment types to more accurately reflect her payment policies.

32) **Risk 32:** Delete Payment Types

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to delete existing payment types to more accurately reflect her payment policies if she decides to no longer accept a certain payment type.

33) **Risk 33:** Create Supply Expense

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to create new supply expense records in the database, so she can effectively track her supplies and generate reports for taxes.

34) **Risk 34:** Update Supply Expense

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to update existing supply expenses to accurately reflect her expenditures on baking supplies for the business.

35) **Risk 35:** Delete Supply Expense

a) **Primary Actor:** Karoline

b) **Risk Level:** Low

c) **Potential Impact:** The system should allow for Karoline to delete existing supply expense records from the database if she finds that certain records are erroneous or reflect false expenditures.

36) **Risk 36:** Sign-In Customer

a) **Primary Actor:** Customer

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow a customer the ability to sign-in to their account. Thus, a customer will be able to access their account information.

37) **Risk 37:** Sign-Out Customer

a) **Primary Actor:** Customer

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to allow a customer the ability to sign-out of their account. It keeps from their account information potentially getting altered.

38) **Risk 38:** Create Payment

a) **Primary Actor:** Customer

b) **Risk Level:** High

c) **Potential Impact:** The system needs to allow a customer the ability to pay for their order. Without payment, Karoline will lose sales.

d) Addressing High Risk: Make the payment process user-friendly for customer's so they won't be frustrated and potentially not go through with an order. When selecting their payment type, the customer should be taken to the payment management system if paying with card, or if paying with cash or check they should still be able to go through with an order.

39) **Risk 39:** Update Payment

a) **Primary Actor:** Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to allow Karoline the ability to update the customer's payment if changes occur to their order. Without an accurate payment, Karoline won't receive the correct amount of funds and the customer could potentially pay for the incorrect amount.

d) Addressing High Risk: Make it simple and user-friendly for Karoline to navigate to the appropriate area of the site in order to update the customer's payment.

40) **Risk 40:** Delete Payment

a) **Primary Actor:** Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to allow Karoline the ability to delete the customer's payment if they cancel their order. Deleting a payment from the system would not cause a major impact if done correctly because then there would be an accurate number of payments. It's labeled as high risk because if a payment was accidentally deleted Karoline would lose sales and a customer would have to go through the payment process again.

d) Addressing High Risk: Allowing Karoline access to delete a payment is a safer option that prevents accidental deletion from a customer. Thus, she has control over whether the deletion is correct or not.

41) **Risk 36:** Secure Customer Information

a) **Primary Actor:** Customers and Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to ensure the safe handling of sensitive customer information during account creation or order fulfillment.

d) **Addressing High Risk:** Sensitive information may be lost if correct measures are not taken to prevent data theft. The system would need to incorporate functions that have certain security standards to assure the customer that their personal data is protected. Providing a guide advising Karoline how to conduct her business in a secure manner, including exclusive use of her work PC noted in the project design, and how she must manage and review any customer information safely. Failure to do so could get Karoline into legal trouble, as well as harbor mistrust in her business.

42) **Risk 37:** Secure Customer Financial Information

a) **Primary Actor:** Payment Management System

b) **Risk Level:** High

c) **Potential Impact:** The system needs to ensure the safe handling of sensitive financial information during order processing.

d) **Addressing High Risk:** The system would need to incorporate functions that have certain security standards to assure the customer that their private financial data is protected. The payment management system also needs to be PCI compliant as well as provide encryption, which it does.

43) **Risk 38:** Sensible Customer Experience

a) **Primary Actor:** Customers

b) **Risk Level:** Low

c) **Potential Impact:** The system needs to be responsive and perform well for customers.

44) **Risk 39:** Sensible Administrator Experience

a) **Primary Actor:** Karoline

b) **Risk Level:**

c) **Potential Impact:** The system needs to be responsive and respond accordingly for Karoline when she modifies various aspects of the system.

45) **Risk 40:** Reliable Performance

a) **Primary Actor:** Customers and Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system needs to be reliable to ensure Sweet Karoline's business continuity, and allow for orders to be placed and desserts to be bought.

d) **Addressing High Risk:** To avoid down times of the system, all precautions should be taken when implementing the system features. An audit trail should be made for all major aspects of the system when they are implemented. Potential back-ups and procedures for downtime of system aspects would allow Karoline to get back online and processing orders faster, saving her from further losses of revenue. System features should also have customer support access so Karoline can request technical advice and help in emergencies.

46) **Risk 41:** Website Compatibility

a) **Primary Actor:** Customers

b) **Risk Level:** High

c) **Potential Impact:** The system needs to ensure the website performs well on various browsers.

d) **Addressing High Risk:** The website features and presentation should be flexible to change as Karoline sees fit. She should not need extensive instruction on how

to manipulate the sites features and pages. If some changes are a bit more in depth, documentation instructing common changes should be provided. The documentation should reference support forums and contacts depending on the feature of for the web hosting company.

47) **Risk 42:** Scalability

a) **Primary Actor:** Karoline

b) **Risk Level:** High

c) **Potential Impact:** The system shall be scalable to meet any growing demands as the business grows.

d) **Addressing High Risk:** Karoline should be able to manage the system as it scales with her growing sales. With implementation, she is to expect greater presence through social media and organized web presence. As the number of orders rises, the system shall perform as normal without any major changes need on Karoline's end to the features, processes, etc. Failure to do so may cause Karoline to have to purchase further software/hardware that may not be compatible with the current systems, or cause her to bottleneck the amount of orders she can process and fulfill.

48) **Risk 43**: Browse/View Products and Information

a) Primary Actor: Customers

b) Risk Level: Low

c) Potential Impact: The system needs to allow for customers to view and browse products in an easy and informative way.

49) **Risk 44**: Track Expenses

a) **Primary Actor**: Karoline

b) **Risk Level:** Moderate - High

c) **Potential Impact:** The system needs to allow for Karoline to accurately track her expenses. Failure to do so could cause Karoline to report false expenses on her taxes, and potentially in the worst case, cause her to unintentionally commit fraud. This could cause expensive legal troubles for Karoline. Also, if she fails to accurately track her expenses, she will not be able to have a good idea of her costs for the business, causing potential inefficiencies.