

The Shirt Express

System Analysis & Design

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2.1. Current System Overview

As a result of the COVID-19 pandemic, many t-shirt companies are shifting their businesses online. This is creating competition in the online marketplace. We want to transition to an online store as smoothly as possible and provide our users with the most outstanding customer experience. Our competitors will have similar websites and processes to ours. An inefficiency we see is the vast amount of shipping delays due to the shortage of shipping companies. A limitation we are experiencing as a team is that we don't know how to create a well-functioning website. To fix these problems, we need to create a rewards program that offers the best price to consumers with the best quality to have a competitive advantage. To develop an effective website, we would need to hire experienced software engineers to ensure this is completed. We can plan to outsource our IT services in order to get an efficient website and also be able to cut costs towards hiring many domestic employees for IT service. This IT service would entail that they try and keep a constant fix for any issue regarding the website and rendering.

2.2. Requirement Analysis

Requirement analysis helps you identify the functional and non-functional requirements of the new system.

*Functional requirements:

User:

- 1) Users must be able to purchase orders with either a member log in
- 2) Users must be able to access discounts that account for a member login account and learn about new discounts coming soon
- 3) Users must receive any email marketing promotion that all members must receive

AI/Employees:

- 1) AI/Employees must have the client's name, address, and contact information
- 2) AI/Employees must be able to verify information of both Users and Customers
- 3) AI/Employees must be able to sign up customers into the member registration system
- 4) AI/Employees must be able to look up both customers and users
- 5) AI/Employees must keep all customer information up to date and confidential.

Customers:

- 1) Customers without a member login must be able to have the option to sign up into the User member login, earning a loyalty program
- 2) Customers must be able to purchase any products that the users can

*Non-functional requirement:

System:

- 1) The system must guarantee excellent security on customers' data input.
- 2) The system must be available 24/7
- 3) The system must ensure the quality of design requirements.
- 4) The system should be able to import TIFF, JPEG, GIF, PNG, and raw image files.
- 5) The system must ensure the availability of materials.
- 6) The system must be easy to use and compatible with major web browsers.

Users:

- 1) Users must be authenticated
- 2) Users must only have access to their own information.

Employees:

- 1) Employees must be authenticated.
- 2) Employees can have access to customer information databases.

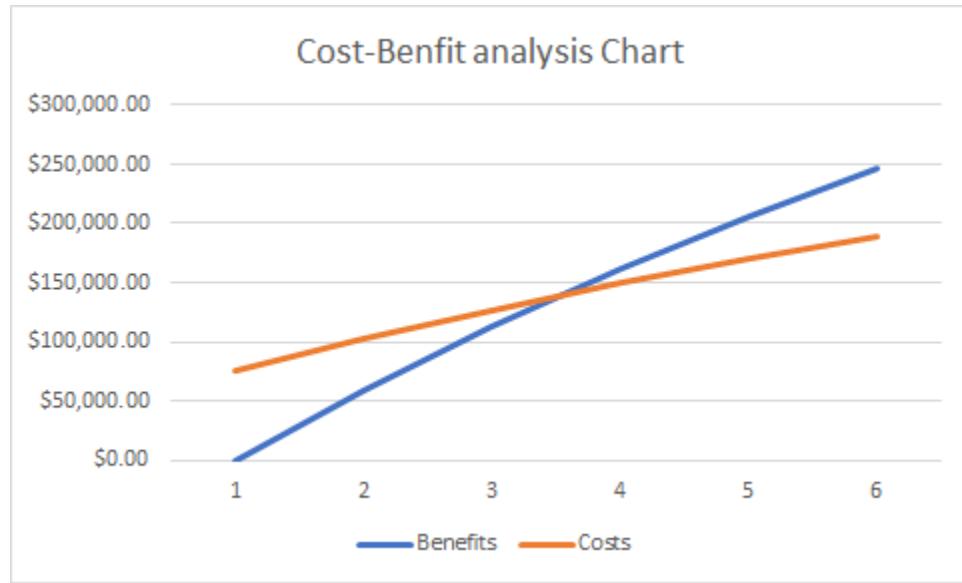
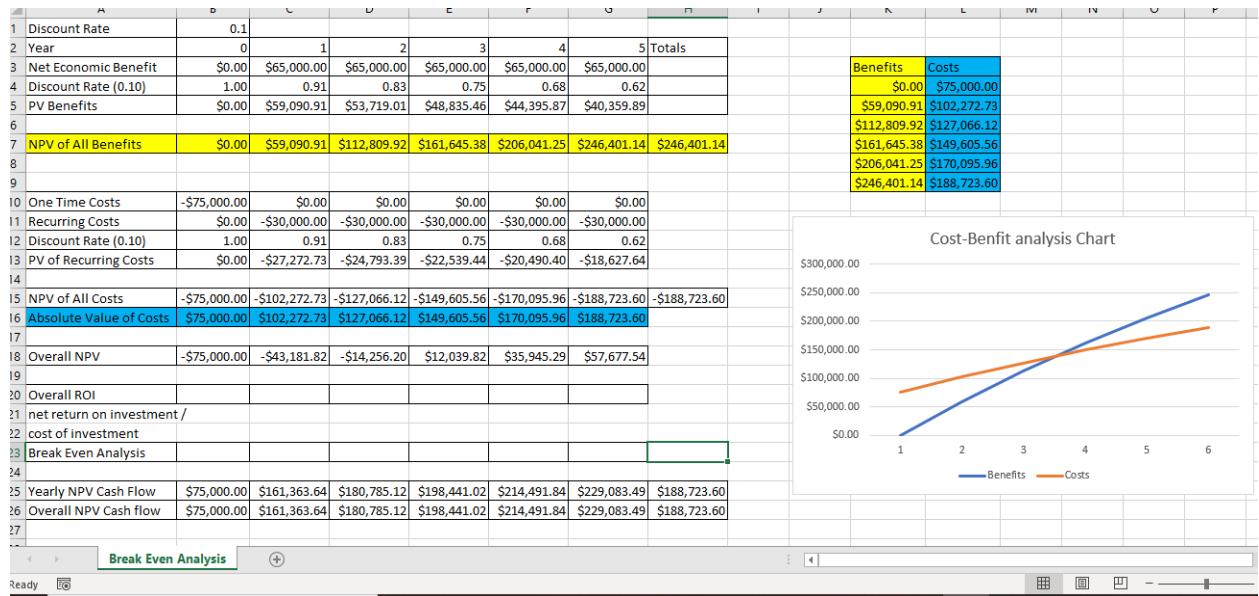
2.3. Feasibility Analysis

The Shirt Express project is a good idea because it's viable for the online business. It would help make bulk items easier to send, make shopping easier with non-contact during the COVID-19 pandemic, and achieve fast production speed when customers purchase items online. The funding of this project will be from the customers who purchase the items in-store and will be going to the online website store so that customers will be able to purchase items that they regularly purchase online rather than in-store.

2.3.1 Market Feasibility

The project will have long-term feasibility because of the current progress of society in regard to the Coronavirus. Vaccines have rolled out and have hindered the progression of the virus. However, there is constant testing regarding future use and the status of vaccinations. This factor allows for the long-term feasibility for our company; another factor would be the analysis of Amazon, which has full reign for the online market industry and has continued to generate massive profits, thus taking into account other companies' success, counting not only Amazon but others, our success rate may be difficult. Still, it should be plausible to "stay alive". Our main source of revenue would be the sale of each shirt with custom designs, rivaling the company Zazzle would be our major competitor, however, there would be no enmity, just a fair market.

2.3.2 Economic Feasibility



Here is our cost-benefit analysis chart. Based on our chart, our project will take some time to create profits and a few years to put our benefits above our costs. It's approximately projected that it will take close to 3.5 years before benefits take emphasis over cost and then we will know that our business plan works. Our benefits will start increasing from \$135,000. Implementation of outsourcing and finding a smooth way to ship the products will eventually lead to a high cost-benefit. A high cost-benefit will lead to more customers relying on our website and services as well as a chance for more customers to join from positive reviews. Over time, we can also implement our website onto an app in order for more efficient services. Some of the costs include

employee salary, using a functioning cloud system, maintaining customer service, and creating a working website.

There will be tangible and intangible costs involved; for example, recurring fixed and recurring costs will be tangible and will include software subscriptions, salary expenses, and maintenance costs. One-time costs include hardware, software, and the purchase of a web server. Some intangible costs involved include, but are not limited to, customer satisfaction, employee morale, and time taken to complete the software training for employees. Our tangible benefits can overcome the costs as we can find ways to cut down on maintenance costs and salaries by outsourcing. Our intangible benefits can overcome those costs by getting customer satisfaction through website surveys or reviews and creating an efficient training program that new employees can watch on their own time.

2.3.3 Technical Feasibility

The company plans to create a website that allows for custom designs, which we have seen other companies utilize, such as Zazzle. Hence, the possibility of having a website that emulates a custom design onto a shirt is plausible. The major issue would be the imagery that is applied to the shirts, such as whether the images render properly on the example shirt for the final render and whether what the user imprints then prints as the user wants. The website should have 3 login options with customer guest accounts looking to purchase a shirt, users who have created an account with the company to create designs or buy shirts and are in the loyalty program, and finally the employee accounts. The website will be difficult to build especially with constant bugs regarding imaging and rendering and as of right now with the group, we have some experience regarding coding but no experience in website design and building which we can improve upon in the future.

2.4. Risk Analysis

Risk Analysis helps you identify risk factors and plan for the mitigation of them. The risk factors and mitigation strategies should be discussed under the following headings:

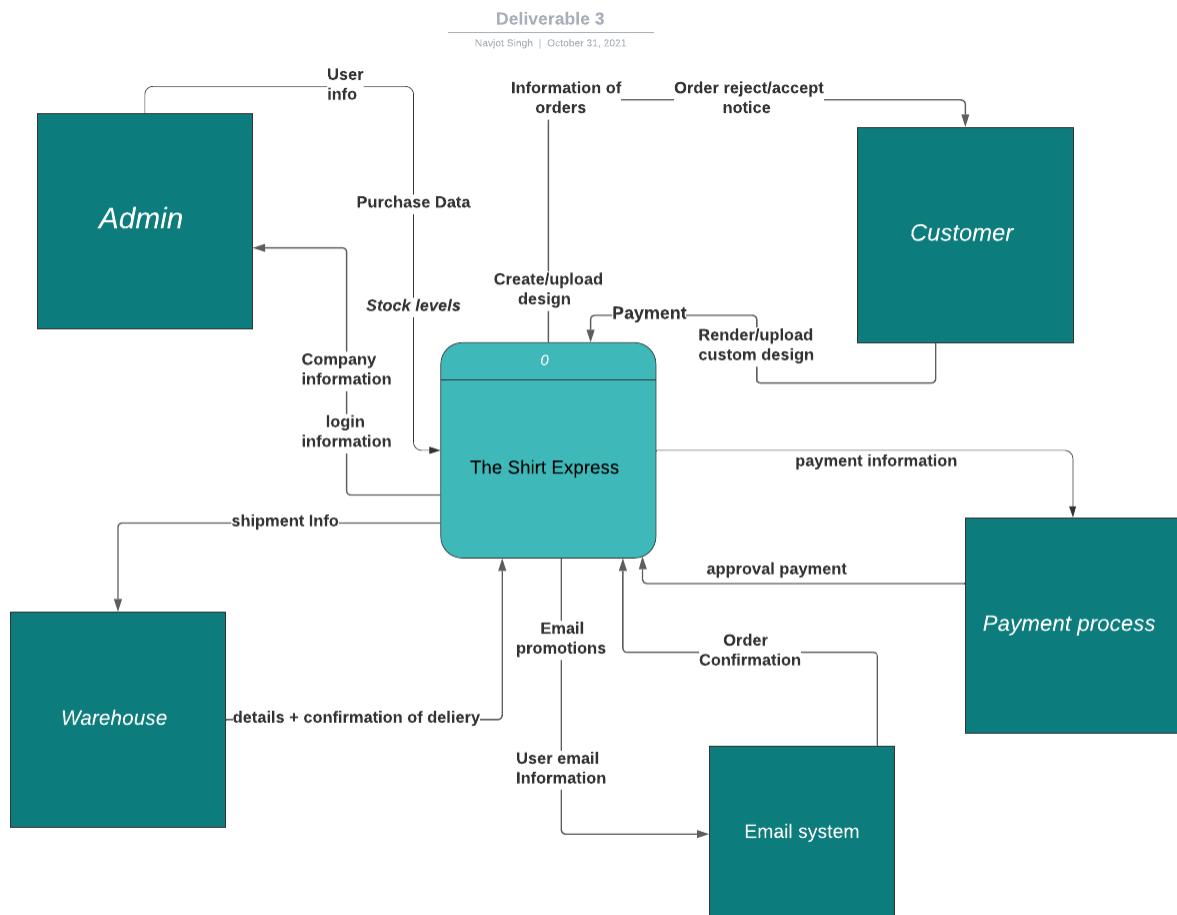
Development risk: Risk of constant unknown bugs that occur during rendering, render data for the image onto the shirt doesn't load, the image comes out wrong or blurry. Technological advancement in rendering systems may improve drastically, as well as operating system updates that change more of the system.

Deployment risk: Understanding how to upload an image may be confusing; there is a lack of support for the system when you upload an image or hold onto information, which results in giving low-resolution images.

Operational and maintenance risk: customer support for the online store when the image is having issues or other issues, user training may be misinterpreted and would need relearning, how to market an online store that allows for customization but is a startup company in the online industry, people may still want to go in person when they want to talk about design issues or other concepts.

3.1.1 Context Diagram

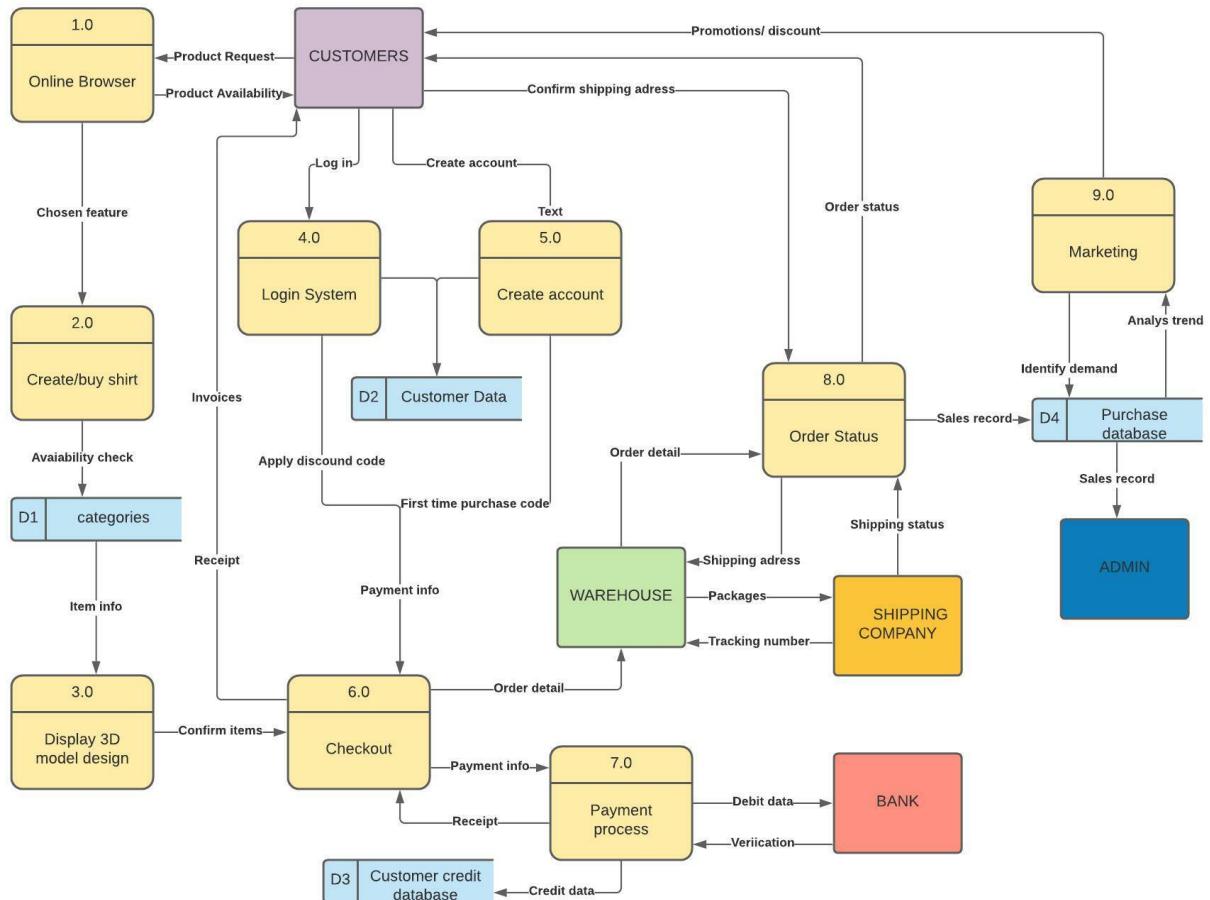
Below is the context diagram for The Shirt Express. This diagram shows the process by which a customer would purchase a shirt or upload a design. It also shows the process of the warehouse and admin communicating with the order and the loyalty/email program demonstrated by:



3.2 Prove a DFD-0 Diagram depicting the main processes in your system.

3.2.1 DFD-0

Below is our DFD-0 that indicates the specific steps that the customer would take and demonstrate with the flow of data by:



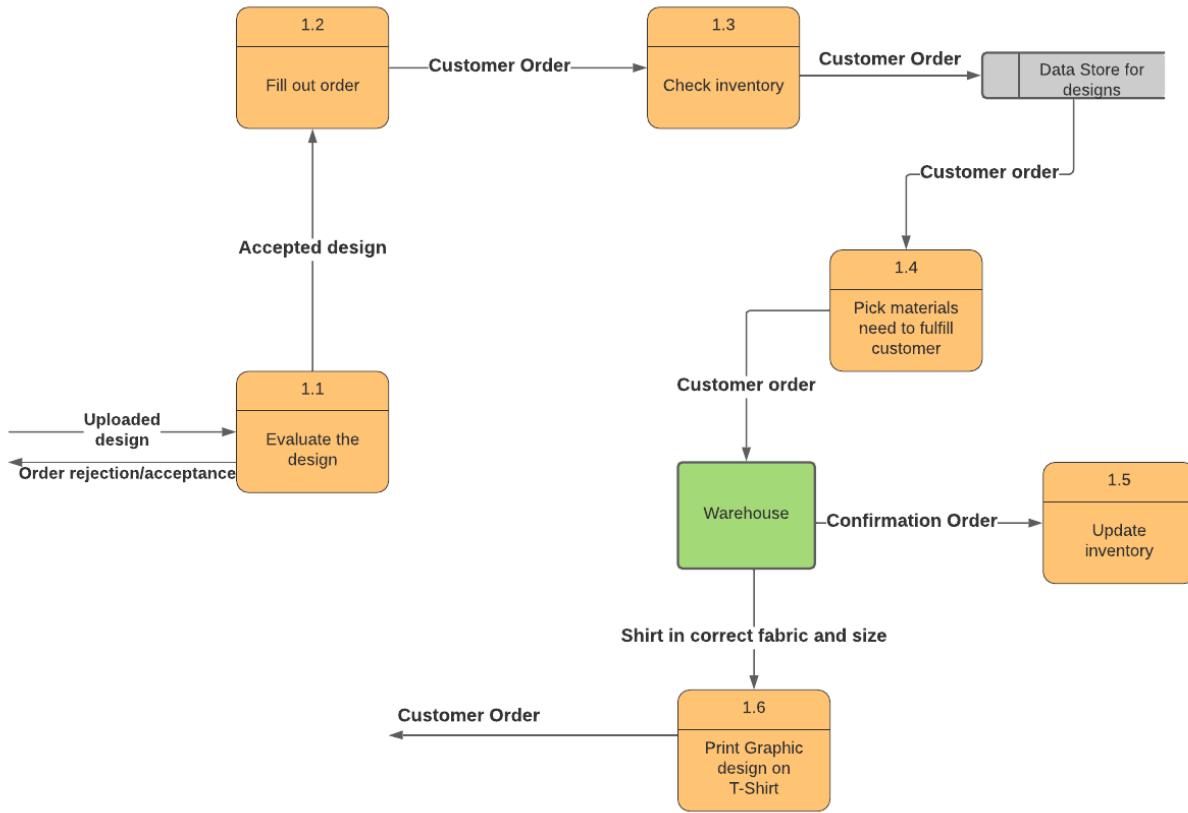
3.3 Provide Level-1 DFD diagrams (the decomposition of the process/functions from Level-0 with the required databases/data-source/data-sink, and the same inputs/outputs). Your DFD should be contextualized with a project dictionary table that briefly defines each component of DFDs (sub-processes, data sets, sources, and sinks).

3.3.1 Level-1 DFD

Below is our Level-1 DFD of Level-0, which dictates a specific section of each process

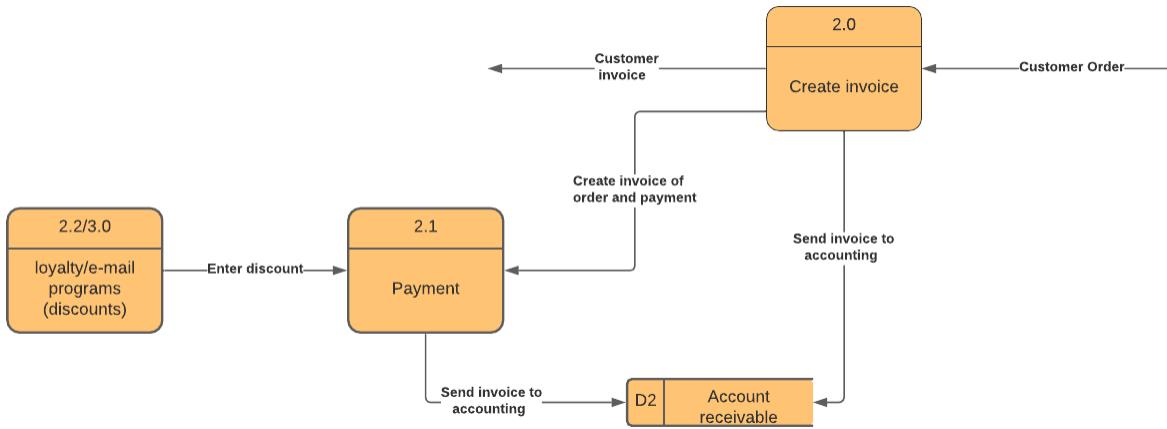
Level-1 DFD: Process 1 - Online Browser

In this breakdown, we provide our customers with a product catalog. The products the customers see on our website are connected to our inventory system. This diagram further displays the data flow.



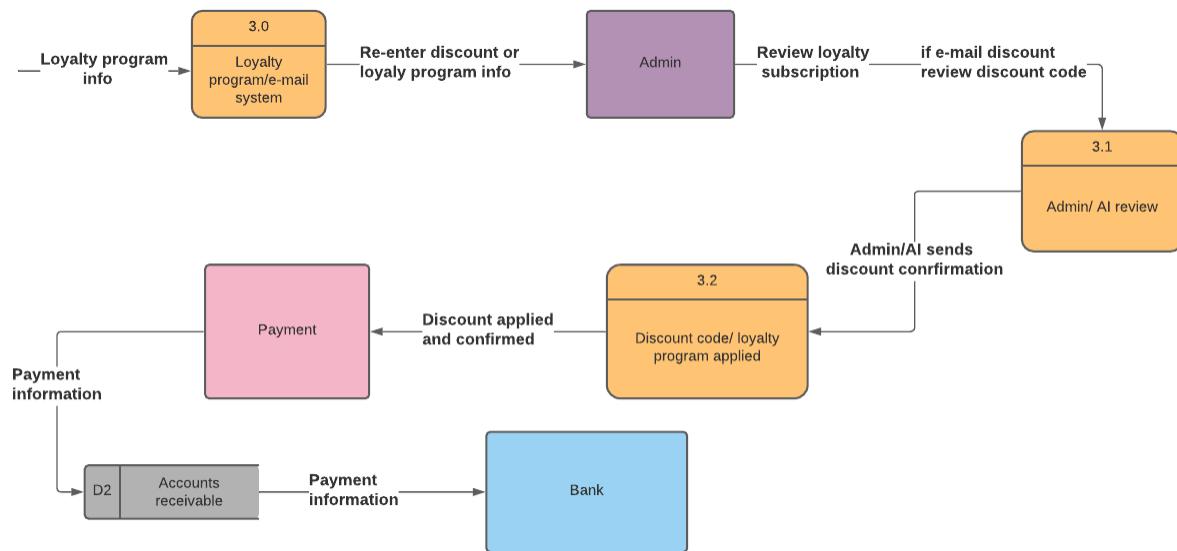
Level-1 DFD: Process 2 - Creating an Invoice

In the below diagram, we dictate the process of creating an invoice, which goes through multiple sources, in payment, and a dual discount system with a loyalty and email program:



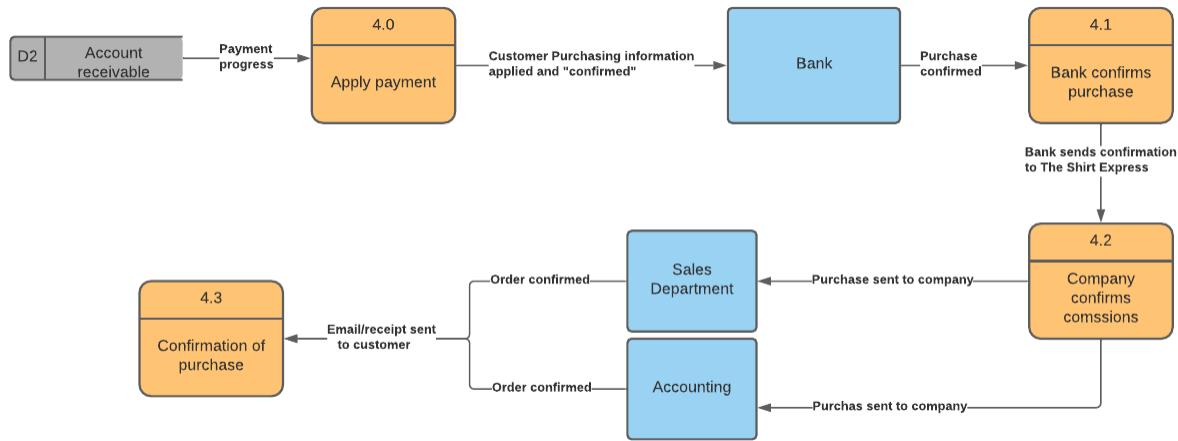
Level-1 DFD: Process 3 - Loyalty/Email program

The diagram below is 3rd processing of the loyalty program that also dictates the process of the program itself, how to review the information, and what point to apply the discount:



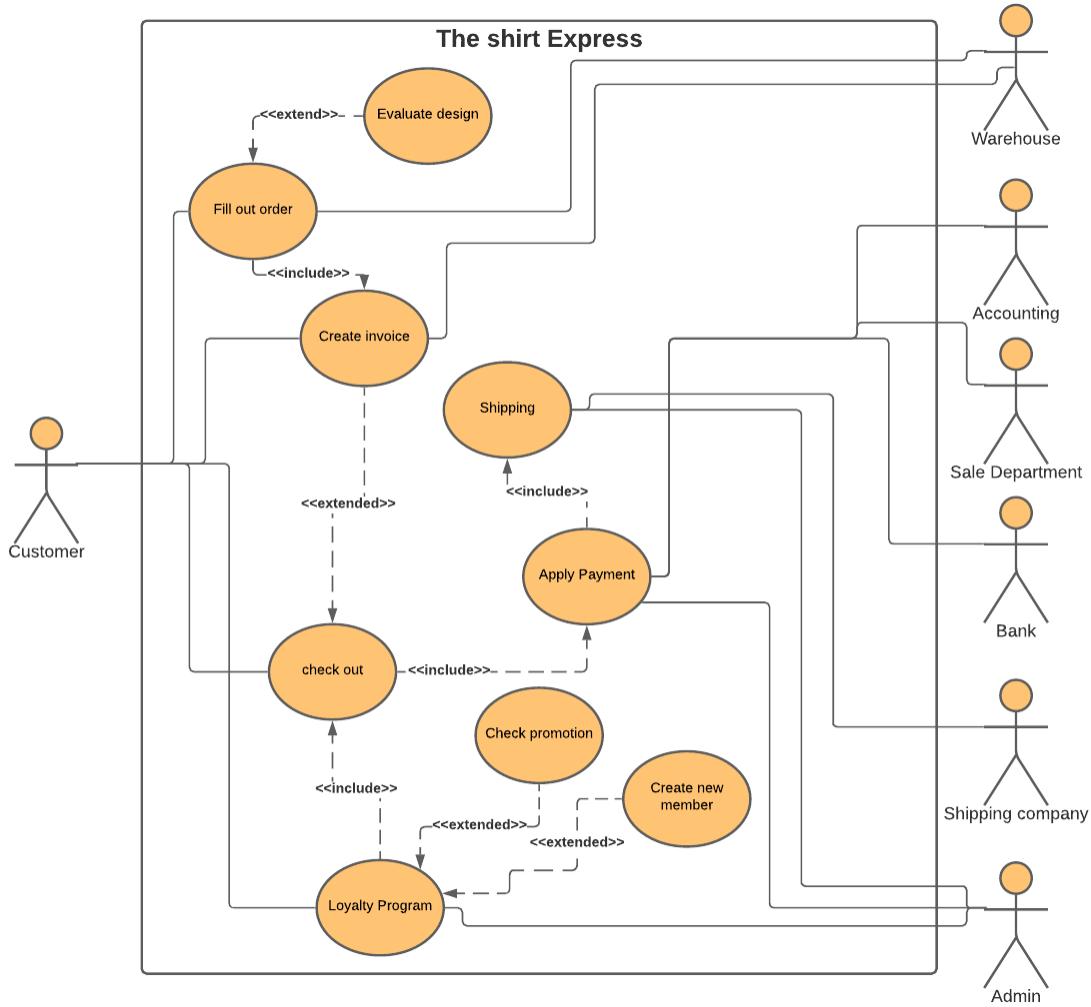
Level-1 DFD: Process 4 - The payment process

Below is the payment process where the bank has a balance and confirms the purchase. Finally, the company affirms the commission and sends the information to the Sales and Accounting department:



3.4 Use Case Development.

3.4.1- Use Case Diagram General



USE CASE NARRATIVE / SPECIFICATIONS

Project Name: The Shirt Express Author: Truc Nguyen

Use Case ID:	Process 1.0 DFD level-O	Version:	<1.0>
Use Case Name:	Fill out order	Date:	11-01-2021
Use Case Objective:	Searching items, uploading customer designs, evaluating design by filling out the order, checking inventory, acquiring the materials needed, updating inventory, and printing the graphic.		
Primary User/Actor:	Customer		

Trigger:	If customer design did not qualify the system quality, the system evaluation will reject the design.
Use case associations	Includes: name of items, selecting items, material, size, inventory Extends: Evaluate design
Preconditions:	Items on searching, customer design graphic
Post-conditions	Approve, deny, update database, request review.

Basic Flow

Step	User Actions (Inputs)	System Response (Outputs)
1	Searching and collecting items match the keyword on the website	The searching feature is assessed in category
2	Upload customer design	The system accepts design, update inventory, and print graphic design on a T-shirt
...	...	

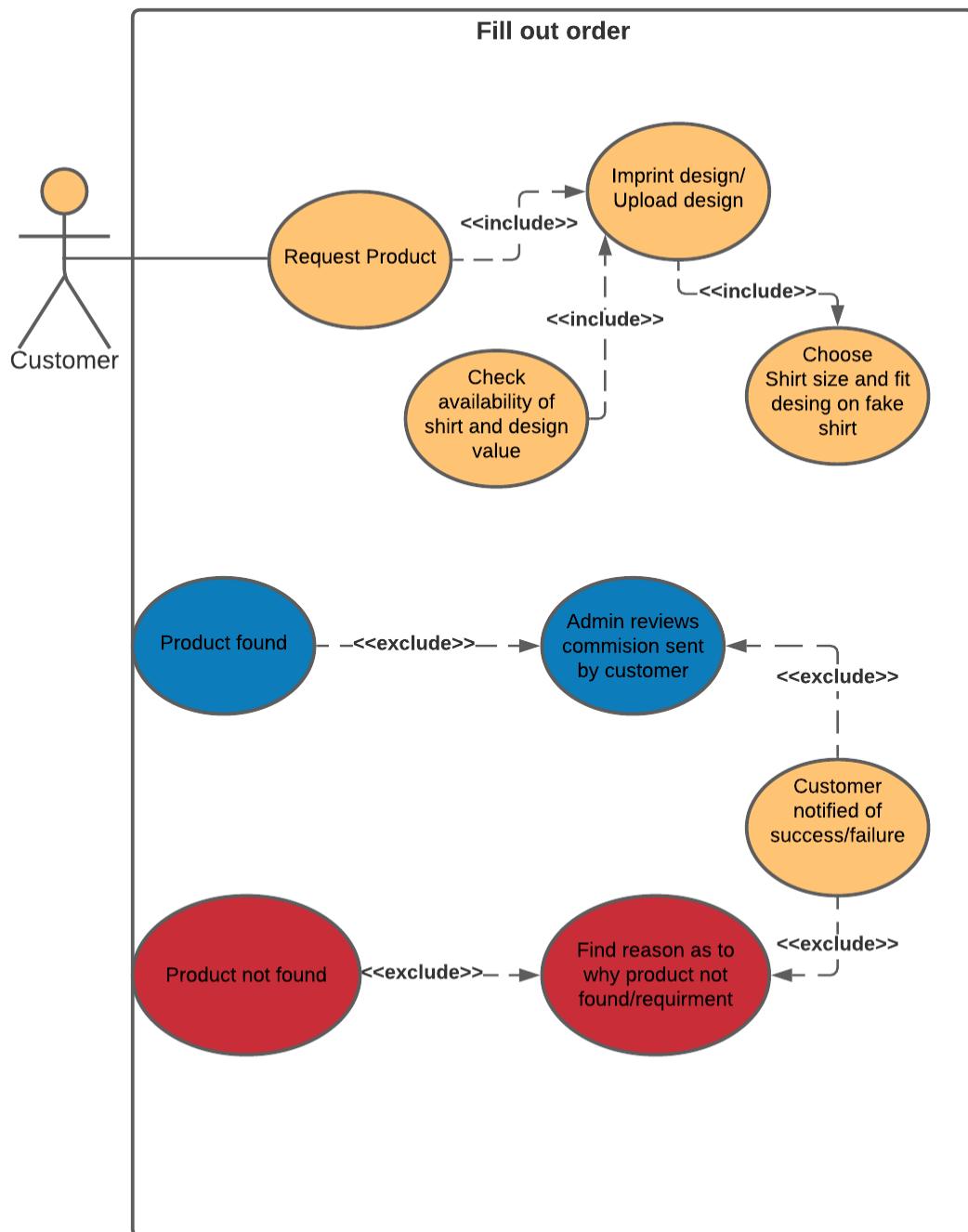
Alternate Flow

Alt	User Actions	System Actions
1	The design does not qualify	The system rejects the design and shows recommendations on how to customize the design.
2	...	
...		

Use Case Notes

Special Requirements	Keywords should be recognized in the category. Customer design should qualify the system quality condition.
Business Rules	Items should be stored in the category and identified by name. Design quality should show on the updating design window before the customer uploads their design.

Reviewed and Approved by: _____ Sagar Kumar _____ Date: _____ 11/01/21 _____
 Reviewed and Approved by: _____ Truc Nguyen _____ Date: _____ 11/01/21 _____



USE CASE NARRATIVE / SPECIFICATIONS

Project Name: The Shirt Express Author:

Use Case ID:	Process 2.0 DFD level-O	Version:	<1.0>
Use Case Name:	Create an Invoice	Date:	11-01-2021
Use Case Objective:	The process of creating an invoice which goes through multiple sources, in payment, and a discount system with loyalty and email program.		
Primary User/Actor:	Customer Accounting and Sales Department		
Trigger:	If customer information did not qualify the system needs, the system evaluation will reject the design and prompt the customer to review information or if customer wishes to modify an object or requirement.		
Use case associations	Includes: Customer commission, invoice to both departments, Extends: Save information for next purchase, Error if purchase was wrong		
Preconditions:	Items on searching, customer design graphic		
Post-conditions	Approve, deny, update database, request review.		

Basic Flow

Step	User Actions (Inputs)	System Response (Outputs)
1	Create a customer invoice about purchase	The invoice is created and is sent to the customer with a receipt of entry.
2	Create invoice for Accounting and Sales Department	A separate invoice is sent to the two departments to list and have information on.
...	...	

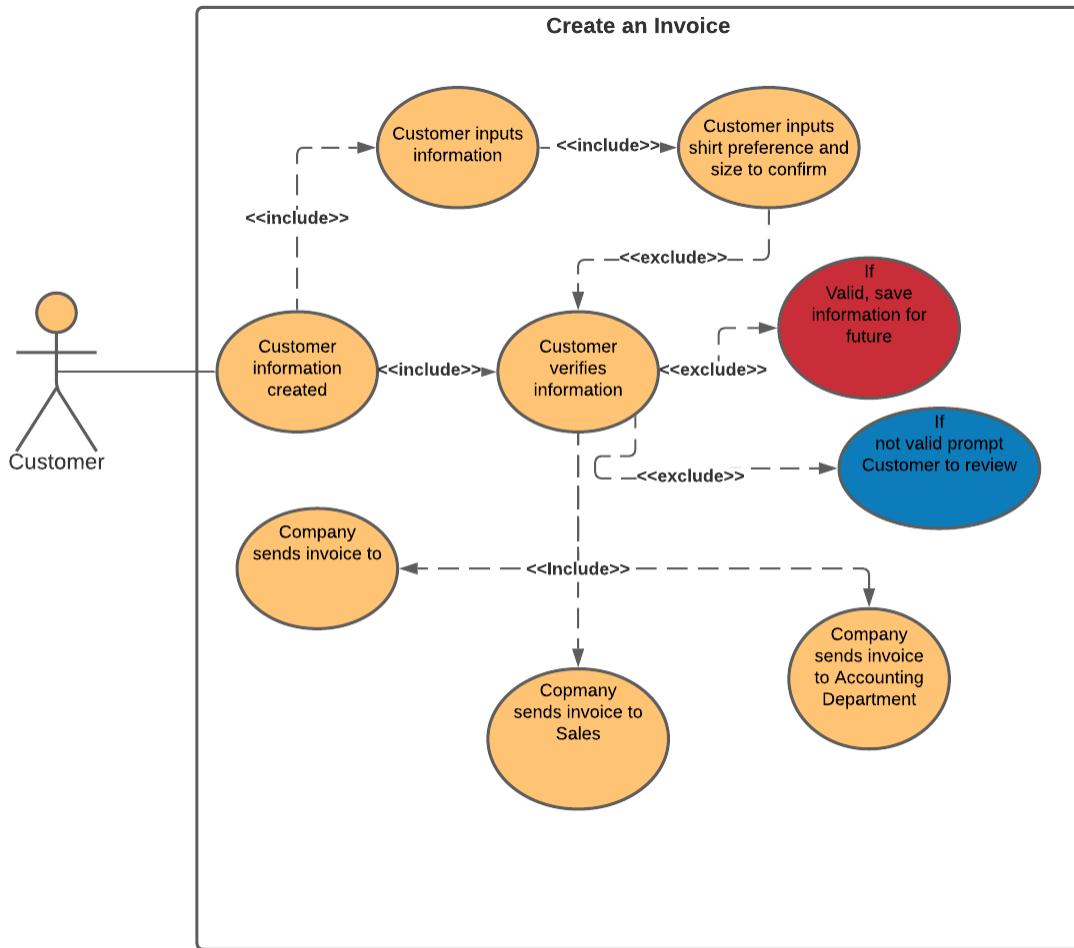
Alternate Flow

Alt	User Actions	System Actions
1	The processed commission is cancelled	The system automatically informs a company manager that the invoice was not sent or commission was cancelled
2	The invoice does not reach customer	
...	...	

Use Case Notes

Special Requirements	Keywords should be recognized in the category. Customer invoice should qualify the system quality condition.
Business Rules	Items should be stored in the category and identified by name. invoice should show the updated information window before the customer uploads their payment information.

Reviewed and Approved by: _____ Mustafa Saiyed _____ Date: _____ 11/01/2021 _____
Reviewed and Approved by: _____ Anthony Ezequiel _____ Date: _____ 11/01/2021 _____



USE CASE NARRATIVE / SPECIFICATIONS

Project Name: The Shirt Express Author:

Use Case ID:	Process 3.0 DFD level-O	Version:	<1.0>
Use Case Name:	Loyalty Program	Date:	11-01-2021
Use Case Objective:	Customers apply for Loyalty program accounts for easy access with saved information (shipping and payment methods), and get offers for rewards.		
Primary User/Actor:	Customer		
Trigger:	If customers do not provide the correct username and password then the system will reject the login confirmation. If the customer puts in the correct information system will accept it.		

Use case associations	Includes: customer username, customer password, forgot username/password, password protection, create a loyalty program, and back to the main page
Preconditions:	The customer creates a loyalty account program, customers enter existing loyalty account program
Post-conditions	Approve login, deny login, update loyalty login information, review customer loyalty login, .

Basic Flow

Step	User Actions (Inputs)	System Response (Outputs)
1	Creates loyalty username and password	
2	inputs loyalty username and password	The system gives the customer the option to create a loyalty account and reviews if the loyalty account is valid or not valid.
...	...	

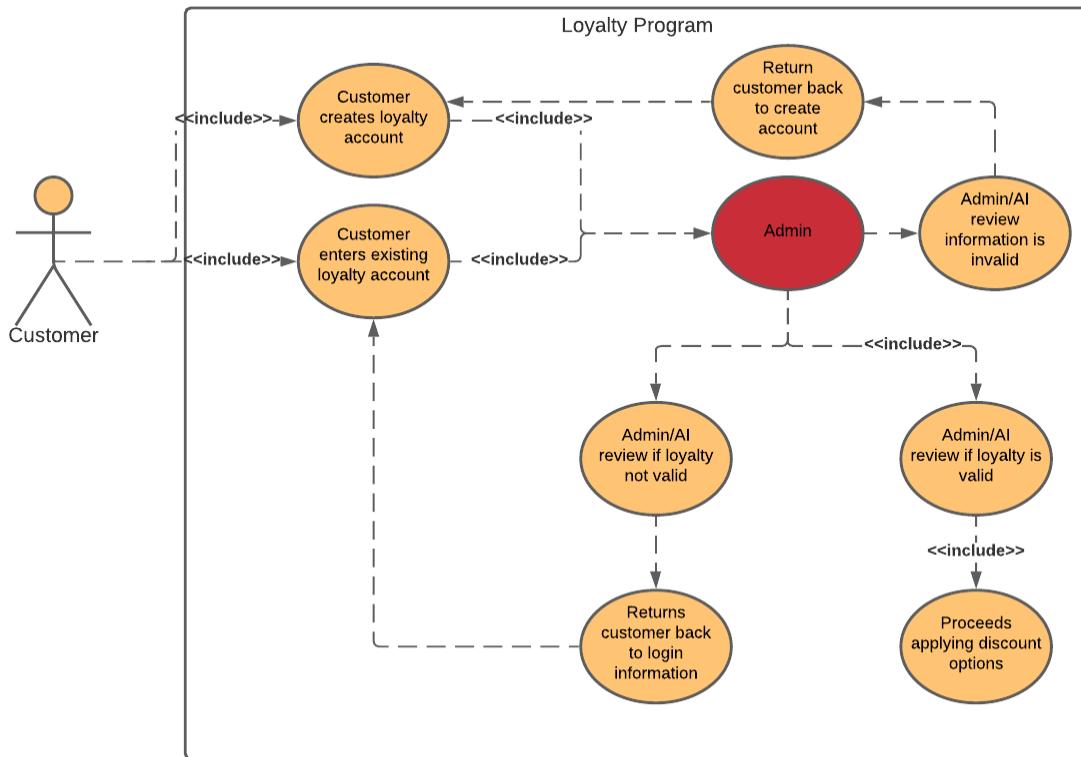
Alternate Flow

Alt	User Actions	System Actions
1	Customer enters existing loyalty username and password.	
2	...	The system reviews the username and password whether the account is valid or not valid.
...		

Use Case Notes

Special Requirements	Having the correct information of both username and password..
Business Rules	Customer information should be accurate and not fake. Customers must remember username and password in order to access loyalty programs.

Reviewed and Approved by: _____ Sagar Kumar _____ Date: _____ 11/1/21 _____
 Reviewed and Approved by: Shawn Gandeza Date: November 1, 2021



USE CASE NARRATIVE / SPECIFICATIONS

Project Name: The Shirt Express Author:

Use Case ID:	Process 4.0 DFD level-O	Version:	<1.0>
Use Case Name:	Apply for payment	Date:	11-01-2021
Use Case Objective:	The process of creating an invoice which goes through multiple sources, in payment, and a dual discount system with loyalty and email program		
Primary User/Actor:	Customer and Bank		
Trigger:	If customer inputs credit/debit card information wrong		
Use case associations	Includes: Payment information, debit/credit card Extends: Save Payment information, modify payment method/information		
Preconditions:	Items on searching, customer design graphic		
Post-conditions	Approve, deny, update database, request review.		

Basic Flow

St ep	User Actions (Inputs)	System Response (Outputs)
1	Customer uses debit card	Provide a receipt to the customer and send the transaction to their bank account.
2	Customer uses credit card	Provide a receipt to the customer and send the transaction to their bank.
...	...	

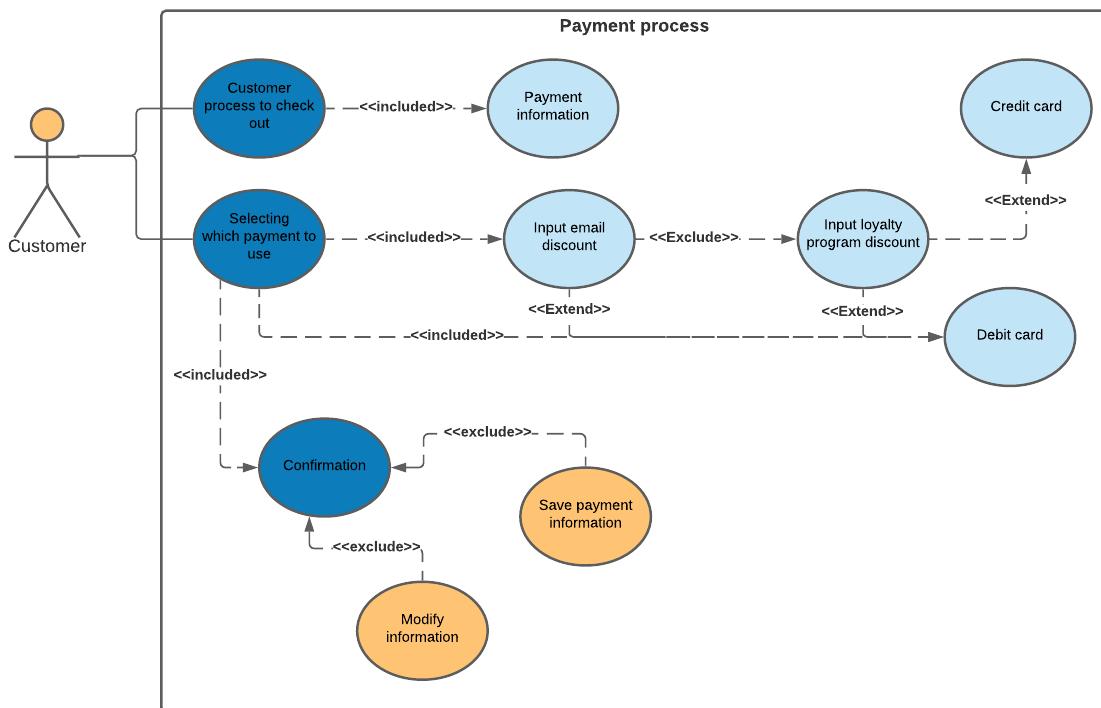
Alternate Flow

Alt	User Actions	System Actions
1		
2	Customer uses an expired card	Send an error message to the customer and ask the customer to use another form of payment.
...		

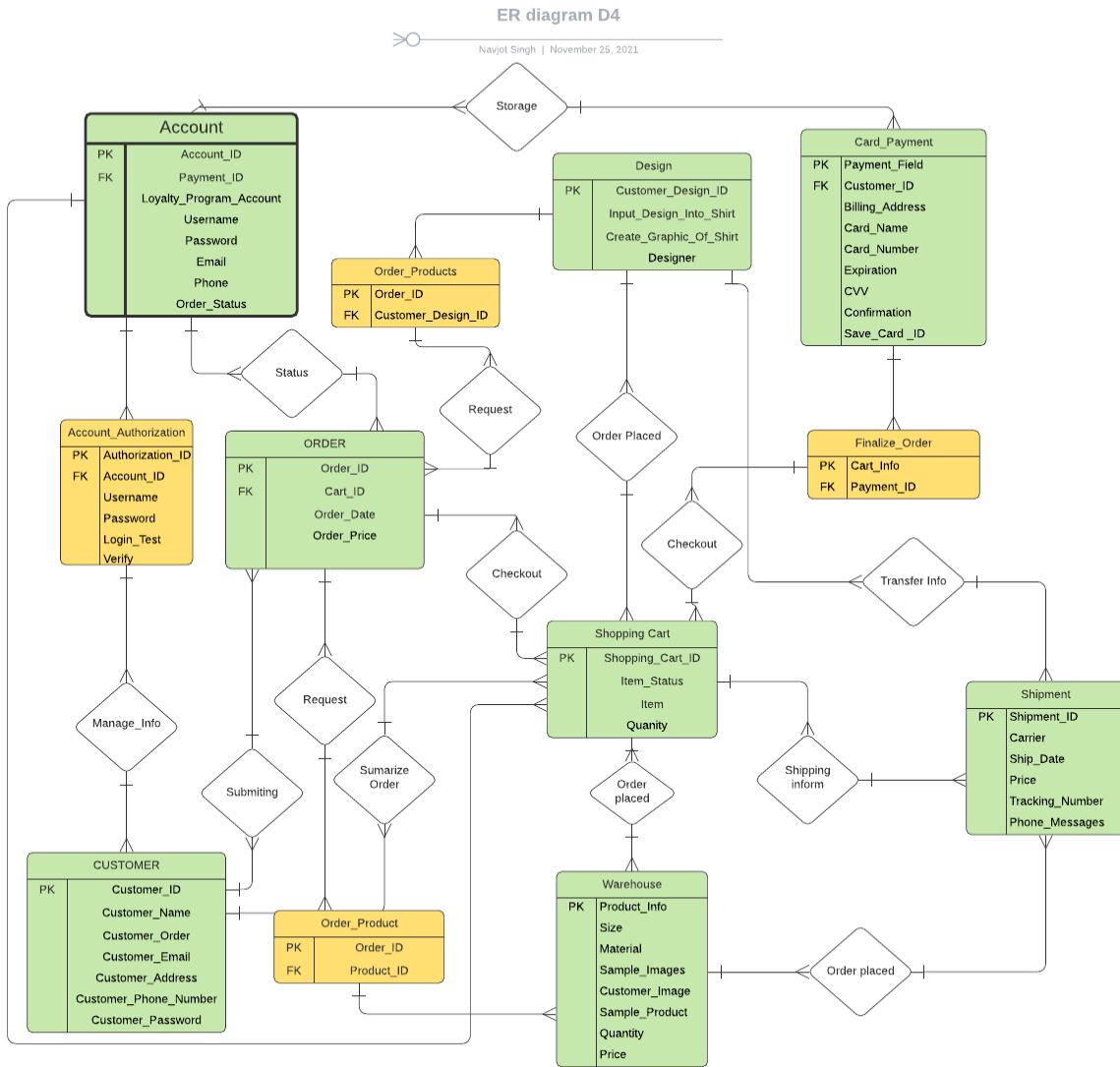
Use Case Notes

Special Requirements	The system must check the customer's payment method for validation before processing the order.
Business Rules	Institution employees can provide refunds or change orders if necessary.

Reviewed and Approved by: _____ Anthony Ezequiel _____ Date: _____ 11/1/2021 _____
Reviewed and Approved by: _____ Navjot Singh _____ Date: _____ 11/1/2021 _____



4.1. Data Model



The entities and relationships of the Shirt Express are focused on acquiring information for client requests and then constructing an efficient production line and shipping system around that information. The model collaborates with other departments to pick products, design them, inspect them, make payments, and track their progress through the delivery process to the customer. Customers may quickly store personal information, make payments, check orders, and customize images by requesting options on the homepage. All orders are symmetry-checked, saved, and linked to the client's account. The link's purpose is to make it simple to track and assure design progress and symmetrically check information with the shipping firm to determine the time it takes to reach the consumer. Customers can select from various payment options on

the checkout page, including card payment, Paypal, Apple Pay, Zelle, and Google Shopping pay. Customers can make purchases using this model whether they have an account or not.

The entity-relationship diagram depicts the data that each entity requires and how that data is used and shared. Foreign keys (FK) are used to identify common attributes between relationships, whereas primary keys (PK) support identifying unique entities. The connections show how and why information is shared between two entities and what purpose that information may serve.

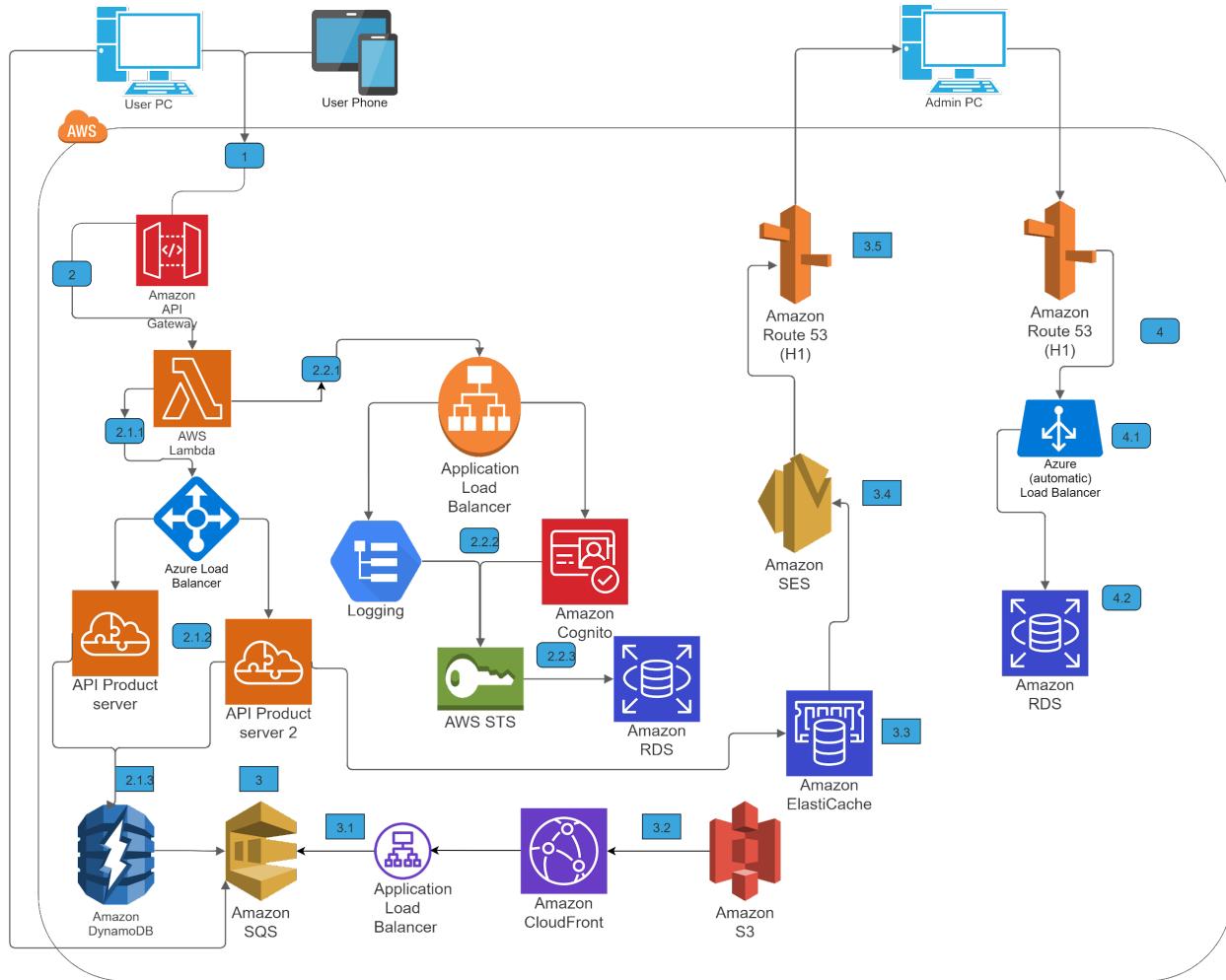
Form table:

Attribute	Key	Format	Notation	Length (Max)	Null	Edit
Account_ID	PK/FK	Int	Numeric	10	N/A	N/A
Payment_ID	FK	Int	Numeric	10	N/A	N/A
Loyalty_Program_Account	N/A	String	Alphanumeric	35	N/A	Applicable
Username	N/A	String	Alphanumeric	40	N/A	N/A
Password	N/A	Plaintext	Alphanumeric	80	N/A	Applicable
Email	N/A	String	Alphanumeric	70	N/A	Applicable
Phone	N/A	String	Alphanumeric	10	Applicable	Applicable
Order_Status	N/A	String	Alphanumeric	10	N/A	Applicable
Authorization_ID	PK	Int	Numeric	10	N/A	N/A
Login_Test	N/A	Boolean	True or False	2	N/A	Applicable
Verify	N/A	Int	Numeric	5	N/A	Applicable
Order_ID	PK	Int	Numeric	10	N/A	Applicable
Customer_Design_ID	FK	Int	Numeric	8	N/A	Applicable

Cart_ID	FK	Int	Numeric	8	N/A	Applicable
Order_Date	N/A	MMDD YY	Date	-	N/A	N/A
Order_Price	N/A	Float.Round(2)	Numeric	-	N/A	Applicable
Customer_Design_ID	PK	Int	Numeric	8	N/A	Applicable
Input_Design_Into_Shirt	N/A	JPG, PNG	Alphanumeric	10	N/A	Applicable
Create_Graphic_Of_Shirt	N/A	JPG, PNG	Alphanumeric	10	N/A	Applicable
Designer	N/A	String	Alphanumeric	30	N/A	Applicable
Payment_Feild	PK	String	Alphanumeric	50	N/A	Applicable
Customer_ID	FK	Int	Numeric	10	N/A	N/A
Billing_Address	N/A	String	Alphanumeric	120	N/A	Applicable
Card_Name	N/A	String	Alphanumeric	50	N/A	Applicable
Card_Number	N/A	String	Alphanumeric	15	N/A	Applicable
Expiration	N/A	MMYY	Date	4	N/A	Applicable
CVV	N/A	Int	Numeric	4	N/A	Applicable
Confirmation	N/A	String	Alphanumeric	5	N/A	Applicable
Save_Card_ID	N/A	Boolean	True or False	2	N/A	Applicable
Cart_Info	PK	String	Alphanumeric	10	N/A	Applicable
Payment_ID	FK	Int	Numeric	10	N/A	N/A
Shopping_Cart_ID	PK	Int	Numeric	10	N/A	N/A
Item_Status	N/A	String	Alphanumeric	10	N/A	Applicable
Item	N/A	String	Alphanumeric	30	N/A	Applicable
Quantity	N/A	Int	Numeric	10	N/A	Applicable
Shipment_ID	PK	String	Alphanumeric	18	N/A	Applicable

Carrier	N/A	String	Alphanumeric	270	N/A	Applicable
Ship_Date	N/A	MMDD YY	Date	-	N/A	N/A
Price	N/A	Float.Round(2)	Numeric	-	N/A	Applicable
Tracking_Number	N/A	String	Alphanumeric	10	N/A	Applicable
Phone_Number	N/A	String	Alphanumeric	10	N/A	Applicable
Product_Info	PK	String	Alphanumeric	10	N/A	Applicable
Size	N/A	String	Alphanumeric	4	N/A	Applicable
Material	N/A	String	Alphanumeric	20	N/A	Applicable
Sample_Images	N/A	JPG, PNG	Alphanumeric	10	Applicable	Applicable
Customer_Image	N/A	JPG, PNG	Alphanumeric	10	Applicable	Applicable
Sample_Product	N/A	JPG, PNG	Alphanumeric	10	N/A	N/A
Order_ID	PK	Int	Numeric	10	N/A	N/A
Product_ID	FK	Int	Numeric	10	N/A	N/A
Customer_ID	PK	Int	Numeric	10	N/A	N/A
Customer_Name	N/A	String	Alphanumeric	60	N/A	N/A
Customer_Order	N/A	Int	Numeric	10	N/A	N/A
Customer_Email	N/A	String	Alphanumeric	40	N/A	Applicable
Customer_Address	N/A	String	Alphanumeric	120	N/A	Applicable
Customer_Phone_Number	N/A	String	Alphanumeric	10	Applicable	Applicable
Customer_Password	N/A	Plaintext	Alphanumeric	80	N/A	Applicable

4.2. Cloud Architecture



1. Network & Web Tier:

The user sends a request to Amazon API Gateway to access the application. API gateways were designed to handle external traffic and route them to internal application services. API gateways help Shirt Express manage the traffic generated by calls from mobile and backend applications. API gateways are the main proxy connecting your customers with the company services. The gateway supports necessary administration and security functions, including authentication, metric collection, input validation, and response transformation.

2. Application Server Tier:

AWS Lambda is data processing in real-time after customers send the request to enable massively parallel shared access for large-scale file processing. Execute code at the capacity of customer need, and then it scales to match data volume automatically and enable custom event triggers. Combine AWS Lambda with other AWS services to create secure, stable, and scalable online experiences.

2.1.1 An Azure load balancer is a Layer-4 (TCP, UDP) load balancer. Load balancers provide high availability by distributing incoming traffic among healthy service instances in cloud services or virtual machines in a load balancer set.

2.1.2 An Azure load balancer helps customers route to access and log into the API product servers. There are always 2 API product servers for data preservation and intrusion prevention. Both API product servers send information to the Amazon Dynamo database; however, API product server 2 also sends information to the Amazon ElasticCache.

2.1.3 Amazon Dynamo DataBase is a database that supports structured document data and key values. Amazon DynamoDB stores identity data and accesses indexed products from Lambda through its API product server. When a data symmetric data stock policy is available and requires additional data, the system backs up, restores the data, and moves to Amazon SQS.

2.2.1 Application Load Balancers support configuring and routing incoming end-user traffic to applications. Login Account Authentication Load Balancer forwards it to the API instance of a login server. Also, with the implementation of Amazon Cognito, users will be able to sign up with their social identity platforms such as Apple, Google, Facebook, and Amazon.

2.2.2 The login server will use Identify and Access Management (IAM) to authenticate and authorize through AWS Security Token Service(AWS STS).

2.2.3 By contacting the Amazon RDS to set up, operate, and scale a relational database in the cloud, a separate database instance specifically for security. The login server will send the response to the user/browser with a valid token. Once the token is issued from the login server to the browser, it will make another request to the application server load balancer using the token.

3. Database Tier:

Manages Database Servers and Data storage via AWS services such as RDS, DynamoDB, S3, etc. The database we receive from our AWS services keeps us updated with any new or old information and allows us to change any information needed to make the website run correctly and functionally. Since the database tier closely resembling the application service tier, they are both important to make the website run smoothly by saving data of all the information brought into the AWS service.

3.1/3.2: if an order comes through, the database will log all the information provided during the ordering process and will contact the database to finalize the order, if the request is an image the Amazon CloudFront will analyze the image and handle the process of retrieving and sending the image and other related data to and from the database Amazon S3

3.3: The Amazon Elasticache has the data ready to be analyzed and inferred for the employee to understand, this section allows the company to set up and easily run a Datastore in the cloud

3.4 Amazon SES allows for sending emails that have a type of transaction marketing message, as well as for the company sending loyalty program advertisements with discount codes.

3.5 Finally, the Information is sent to H1 or the Amazon Route 53, code-named H1 for now, the H1 system will review all the information provided whether the web server is accessible and working

4. Admin

controls the data that is relied upon and reviews the information (information that the customer has allowed to be viewed and anything under their control); they also send commands to Route 53 H1 on the admin side to view both customer and admin view

4.1 The load balancer allows for access to different web servers, connecting individuals to an open slot within the server to free up the traffic on servers in case of an influx and potential collapse of the server

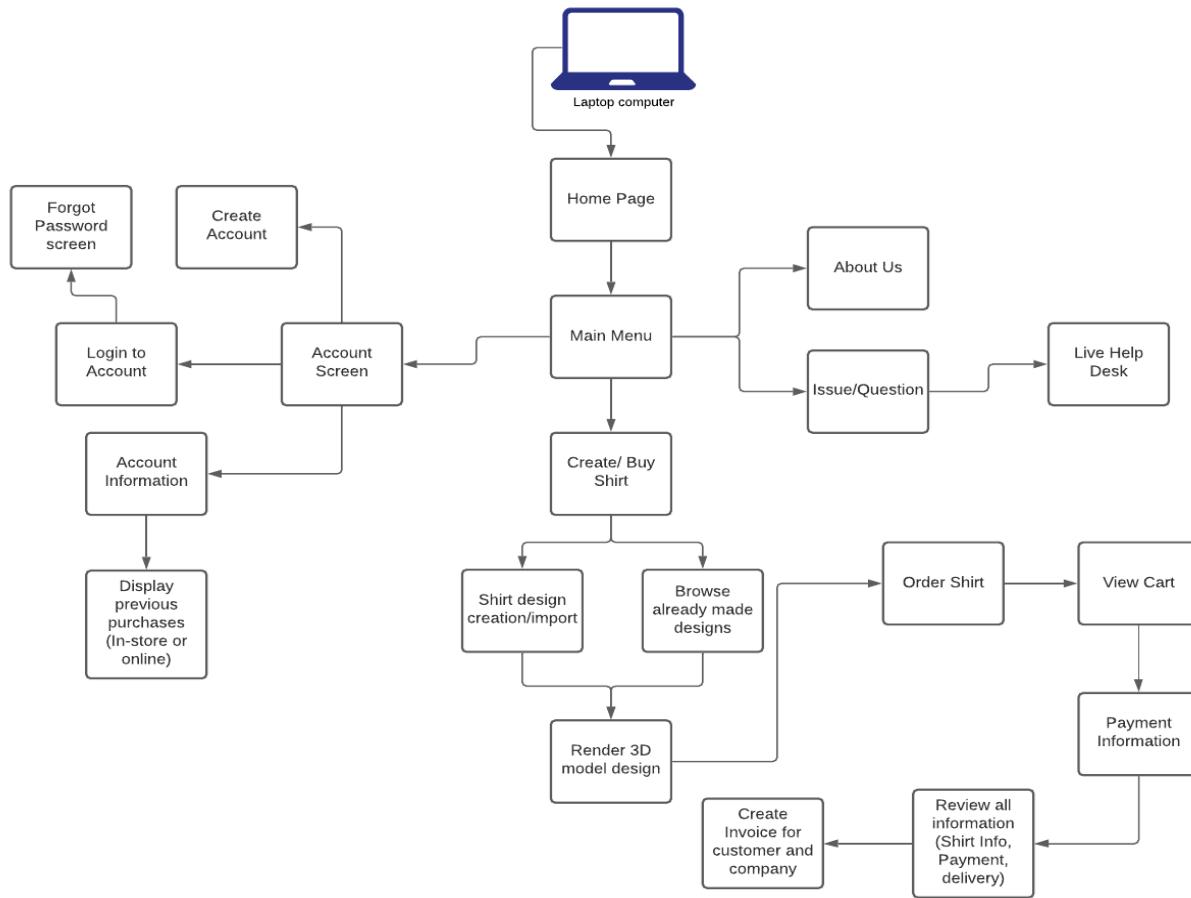
4.2 The information and details that are needed for the Admin and any executive will be held in the Amazon RDS, which will be directly linked to the admins and certain executives

5. Authentication Tier:

The authentication tier is an important part of the online website because of how it manages User Access and Encryption Keys via AWS services such as Identity and Access Management, Cognito, etc. In order for both the application and database to run correctly, an authentication tier must be placed into the system so that the database knows who is viewing or working on the website programs without having any incorrect information going into the system itself. If a customer logs in to the system and wants to make sure that no information is leaked, they may have the option to use AWS security configurations such as VPC to increase security and control.

5.1 Dialogue Diagram

5.1.1 User Dialogue

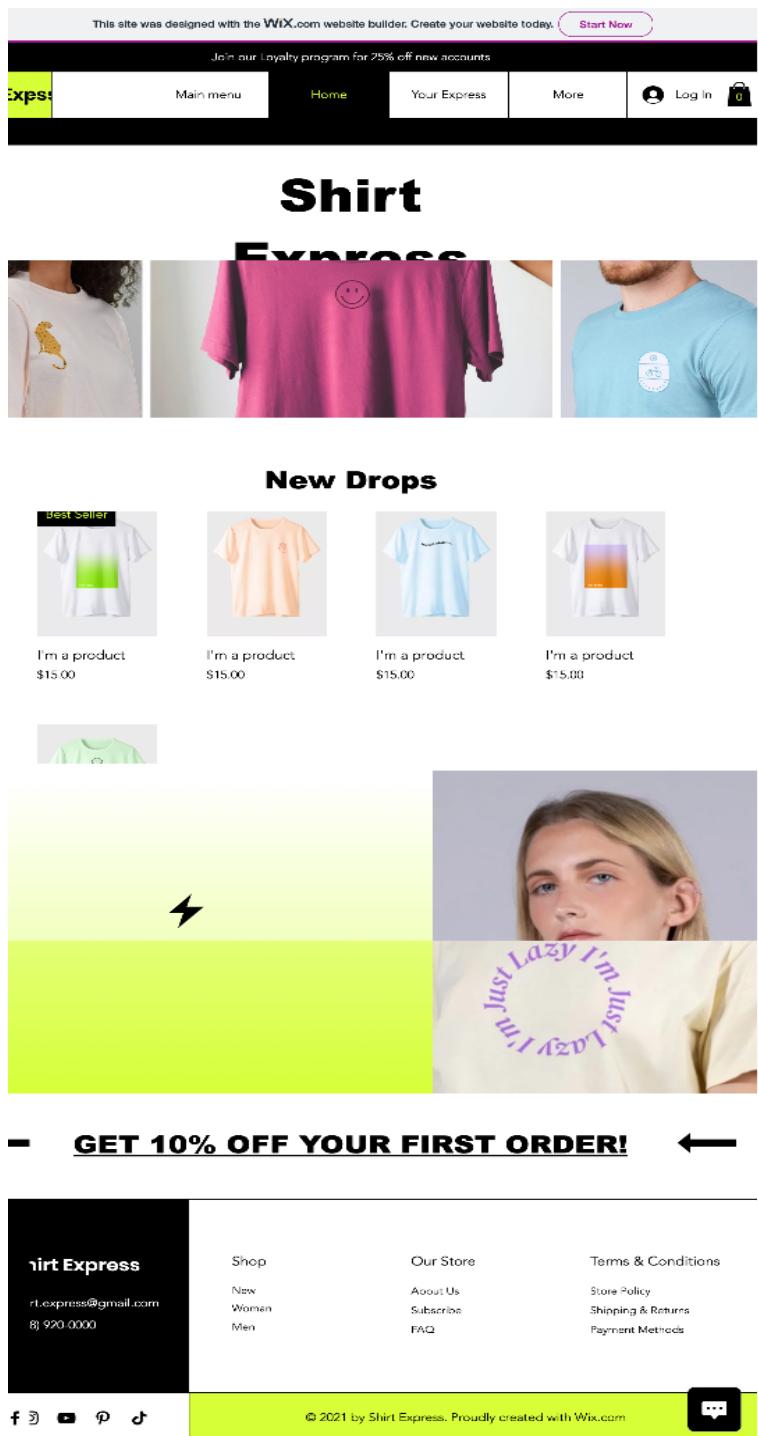


Customers will be the primary users of our UI design. We want to emphasize easy accessibility for users throughout the design process. First, customers using laptops/ computers type our website on the web browser. The home page window will pop up, then customers will click on the main menu to choose features depending on their demand. There are four main features: create/ buy shirts, account screen, issue/ question, and about us. For the create/ buy shirt feature, customers can create their designs on our website, upload their designs, or buy the designed shirts. Customers can pick the items and choose gender, color, size, and quantity for the purchasing function. Our website uses the 3D interaction feature, a significant feature of the Augmented reality (AR) experience that can blend virtual and real-world elements. The system will tell customers to upload their pictures to the website. The system will create a custom image

in a virtual environment that allows customers to try the shirts. Users can rotate or otherwise move the virtual items in 360 degrees. It allows customers to see physical objects in the virtual environment. When customers are satisfied with the shirts, they can make an order and confirm the shirt information with the view cart function. The next step is payment information where customers can see the total amount of the shopping cart. The system will ask customers to log in to their accounts through the account screen feature where customers enter a loyalty program and an email discount code using the log-in to account function. If customers forget their password, there is a forgot password screen function to assist customers in resetting their password. New customers can use the create account function to sign up for 10 percent of the first purchase. In addition, account information functionality allows customers to check on their previous purchases including in-store and online purchasing. For payment information, the system will verify whether customers are eligible for the company promotion; if yes, the system will show their new total pay. The next step is entering customer payment information, including card payment, reward points, Paypal, Apple Pay, Zelle, and Google Shopping Pay. Customers also ask to review the Shirt Express purchase about items, payment information, and shipping address at reviewing all information. After the customer confirms the correct information, the system will create an invoice and send it to the customer as the purchase is completed. The system will ask customers to go back to the homepage to make another purchase or exit the website. The system also supports customer purchases on our website through the issue/ question feature where the live help desk function is available 24/7, so customers can get help right away. Last but not least, the about us feature will let customers to the new window showing the Shirt Express company mission statement, and contact information.

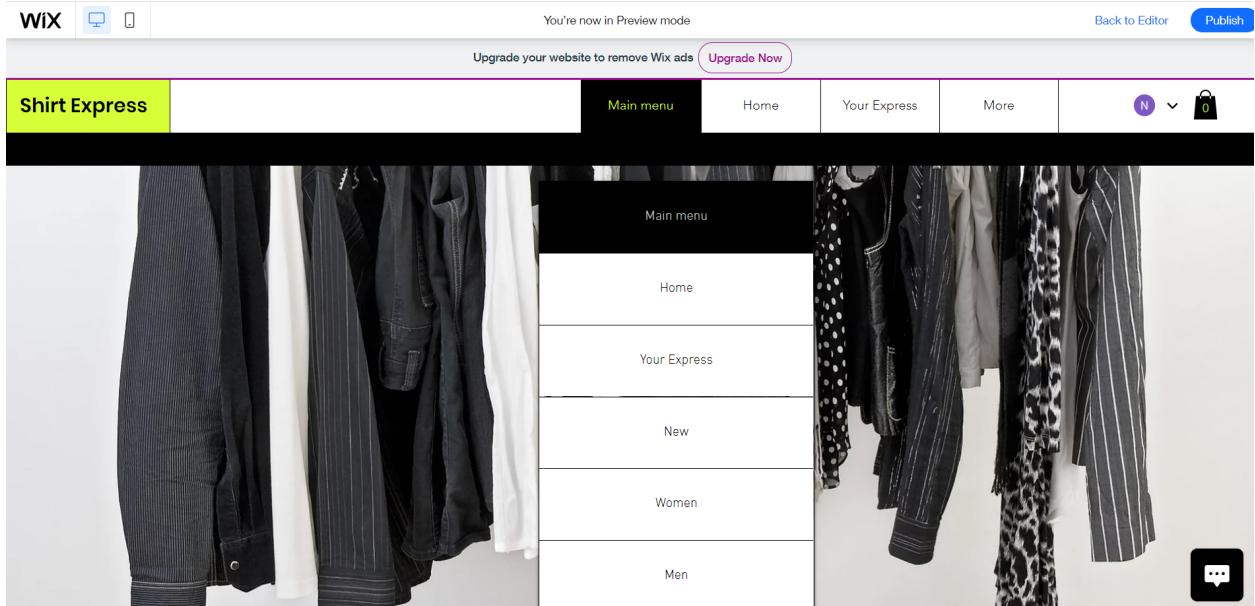
5.2 User Experience (UI Prototypes)

1. Homepage



Homepage: Customers can see the latest release of our new shirts. They have the option to navigate through the website and its different functions separately.

2. Main Menu



Main menu: Customers can choose either selections from Home, Your Express, New, Women, and Men. Each selection is different from the others, for the Home button it will prompt the customer or user to the main screen of the Shirt Express website. Your Express is a customized selection in which the customer or user gets a variety of different products that he or she has either looked up or bought previously. The New button is where it shows the newest products that are available for the specific season and style. The Women and Men buttons are selections in which a customer or user can look up only Men items or only women's items.

3. Account

Sign Up

Already a member? [Log In](#)

 [Sign up with Facebook](#)

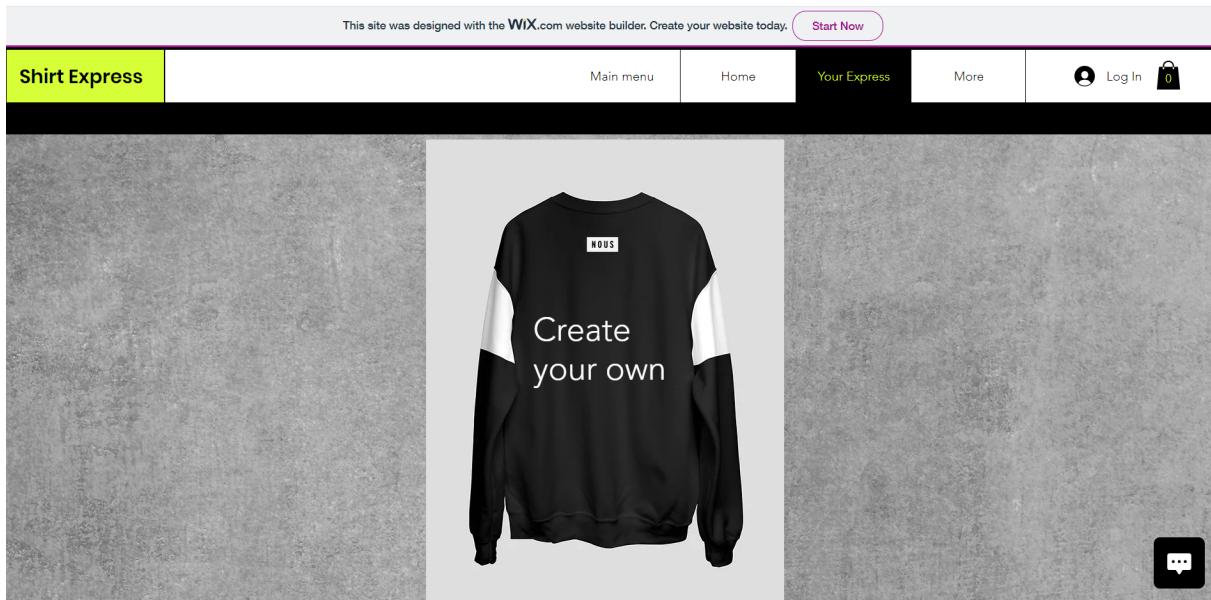
 [Sign up with Google](#)

or

[Sign up with email](#)

Login/Create Account: After clicking on the login button, our website will ask the user to sign up for a membership with the company in which the user is able to get previews for upcoming products and be able to have saved data on previous purchases made. Also, members can save money just by simply being a member. Users can sign up on this page whether it be through Facebook, Google, or just with their email address. If a user already has a membership they can just press the Login button to sign into their account.

4. Create Shirt



Your Express: This function allows customers to create their own designs for their shirts.

5. Order Page

A screenshot of the 'Order Page' from the Shirt Express website. The top navigation bar is identical to the previous page, with 'Main menu', 'Home', 'Your Express', 'More', 'Log In', and a shopping cart icon. A banner at the top says 'Join our Loyalty program for 25% off new accounts'. The main content area is divided into two sections: 'My Cart' on the left and 'Order Summary' on the right. 'My Cart' shows a single item: a grey t-shirt with the text 'I'm a product' and a price of '\$15.00'. It includes a quantity selector (- 1 +) and an 'X' to remove the item. Below the cart are fields for 'Enter a promo code' and 'Add a note'. 'Order Summary' displays the subtotal '\$15.00', shipping information ('Shipping California, United States FREE'), and a total of '\$15.00'. A large 'Checkout' button is prominently displayed. At the bottom, there is a green SSL secure shopping badge with the text 'SSL SECURE SHOPPING Your data is safe and secure.' and a speech bubble icon.

Order Page: Allows customers to see what's inside their cart and make any last-minute changes. This screen displays an exact cost breakdown of their order and itemizes each product. Customers can insert any promo code to receive any discount. This screen also displays a checkout button for a quick ordering process.

6. Payment Information

The payment information screen collects customers' inputted information, such as shipping address, contact information, and payment information in order to confirm the purchase and begin the order.

Contact information

Already have an account? [Log in](#)

Yes, tell me about new gear drops, big savings, automotive mayhem, and more.

Shipping address

?

Text me with news and offers

[Return to cart](#) CONTINUE TO SHIPPING

7. Live Help Desk

Live Help Desk: The website has a live chat box that appears throughout the website to provide convenience to the customers if they need assistance. Technical support will be provided once available.



8. About Us

WIX  You're now in Preview mode Back to Editor Publish

Upgrade your website to remove Wix ads [Upgrade Now](#)

About Us



The screenshot shows a Wix website's 'About Us' page. At the top, there's a navigation bar with the Wix logo, preview mode indicators, and a 'Publish' button. A purple banner across the top says 'About Us'. Below the banner, there's a large white t-shirt with a palm tree graphic and a yellow tag that says 'TSHOP'. To its right is a black t-shirt with the text 'Just Laz' and 'TSHOP' on it, also with a yellow tag. On the left side of the page, there's a small icon of a smiling face and some descriptive text about the company's history and mission.

Everything you need to know about your fave Shirt Express.

Shirt Express is a pre-existing company that wanted to expand into the online industry after Covid. We love to make shirts for people to wear and for people to make their own shirts.

Shirt Express wishes for the world to let their creativity run for people to wear.

About Us Page: Gives customers some background information about the company. This helps customers feel more personal and connected to our brand.