

COMET CLOSET

By Designer Kutsal

Opening
Soon



Group -10. A project Idea by,
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Background

University souvenirs hold a lot of value in them and sometimes there's nothing like feeling warm and cozy in our old school hoodies.

Our very own Comet Closet by Designer Kutsal gets you one step nearer to experience a virtual shopping like never. As it turns out that university isn't a place to study but it's a brand which goes along with every other brand associated with you. We promise to deliver a first-hand retail experience.

Comets Closet is a virtual store where we have UTD merchandise for our students and staff. This virtual store gives its customers the privilege to customize their purchase and gives them full autonomy.

We have a range of products tailored to both Men and Women and give them a Whoosh experience.

The various features inbuilt in this store are:

1. Simple Purchase
2. Merchandise Customization
3. Purchase and Delivery

Business Process Model

The process involved in shopping from Comet Closet is as follows:

1. Customer needs to be a current student, Alumni, staff or faculty of The University of Texas At Dallas with a valid UTD ID can walk in and place his order in one of the many computers placed in the shop.
2. When the customer enters the store, this user-friendly portal will have user login which will direct him to a page to get registered with student details like Student ID, First Name, Last Name, Date of Birth, Email ID, Address Type, Address Line, City, State, Zip code and hit the Register Me to get yourself registered.
3. The user login also directs to a page where there is view merchandise tab, create order and Check your details.
4. The view merchandise tab has all the available merchandises for the customer with information and pictures.
5. The Merchandise Tab displays a variety of apparels and accessories our store offers in assorted sizes from Small to XXXL with a range of colors from Blue, Red, Green to Orange.
6. In Create Order tab there is a student ID tab where student ID after registration needs to be inserted which creates a new order ID and auto-generates the Date of order. The customer needs to fill in details like Merchandise ID, quantity needed, Address which is already available from the customers database and payment details like Payment Type, Card Number and the type of order (In Store/delivery).

7. There are various promo coupons available for the customer and he can apply the valid coupons against his order to receive the purchase price after the discount and the record gets added.
8. Existing customers can go to Check your Details button and enter their UTD ID to get a glimpse of their details.
9. As an enthusiastic Comet, every comet will love to receive their souvenir designed by Kutsal and either receive it at their doorstep or can collect it in the store.

Proposed Model

Our portal has both Admin Login and User Login. The User Login is a part of our business process. The Admin Login allows us to carry out various operations like:

1. Details of Students:

Here the admin gets to view the records of the students and verify the students' details as entered in the portal. This includes students' personal information (Name, Address, Date of Birth and Email ID) and the order details and payment details of specific customers.

2. Profit Details:

Being a novel retail merchandise, we wanted to analyze and have detailed insights of the profit from our investment. We calculated profits by Year, Month, Order Type, Color, and Size.

3. Top Selling Merchandise:

Top selling merchandise were evaluated from the database details and were classified by Color, Size and Category. Also, the Top 5 Selling categories were found.

4. Vendor Details:

Vendor details like ID, Name and Location were recorded in the database. The admin could add records of other vendors as well.

5. Add Merchandise:

With admin access, new merchandise could be added which consists of information like Selling Price, Merchandise Type, Size and Color.

6. Add Promo Codes:

Admin could view all the available promotion codes for shopping with a detailed description. A new record of promo codes could also be added.

7. Add New Delivery:

A new delivery ID record could be added if Order ID, Delivery Date, Student ID and Address ID are recorded.

Scope of the Database

Student Table:

This table gives information regarding the student details and has a primary key of student ID which is the UTD ID which is unique to every single student in UTD.

| Attribute Name | Description | Data Type | Remarks |
|-----------------------|--|------------------|----------------|
| StudentID | This is unique to every student and is the key factor for identification | NUMBER | Primary Key |
| FirstName | This is the First Name of the student | SHORT TEXT | Required |
| LastName | This is the Last Name of the student | SHORT TEXT | Required |
| DateOfBirth | Date of Birth is in the format of (MM/DD/YYYY) | DATE TIME | Not Required |
| Email | Data validation rule of “@” is a must | SHORT TEXT | Required |

Address Table:

This table gives information regarding the address details of the student. Address ID is unique to every customer. This table is linked to the student table as every student will have an address associated hence Student ID becomes the Foreign Key in this table.

| Attribute Name | Description | Data Type | Remarks |
|----------------|---|------------|-------------|
| AddressID | Every Address when created gets a unique address ID | NUMBER | Primary Key |
| AddressType | Home / Office | SHORT TEXT | Required |
| AddressLine | Length if 20 characters | SHORT TEXT | Required |
| City | Character limit of 20 | SHORT TEXT | Required |
| State | State | SHORT TEXT | Required |
| Zipcode | Has to be 5 digits from 0-9 | NUMBER | Required |
| StudentID | Student ID from the Student Table is required | NUMBER | Foreign Key |

Vendor Table:

Vendor Table is associated with every vendor whose associated with our store. Vendor ID our primary key is an auto generated ID which gets incremented and is the primary key for this table.

| Attribute Name | Description | Data Type | Remarks |
|----------------|---|------------|--------------|
| VendorID | Auto-incremented and generated ID - it is unique for every vendor | AUTONUMBER | Primary Key |
| VendorName | Name of vendor | LONG TEXT | Required |
| VendorLocation | Location of vendor | LONG TEXT | Not Required |
| PurchaseDate | Date the shipment has been sent by the vendor | DATE | Required |

Promotion Table:

This is the attraction to our Closet. We have various promotional codes for our customers which has a promo ID associated with each promo coupon.

| Attribute Name | Description | Data Type | Remarks |
|--------------------|-------------------------------------|-------------|-------------|
| PromoID | Uniquely identifies every promotion | AUTO NUMBER | Primary Key |
| PromoDiscountPrice | Details of the promotion | SHORT TEXT | Required |
| CouponCode | Label used for the promotion | SHORT TEXT | Required |

Merchandise Table:

The merchant table has all the details associated with the different types of merchandise available like Belt/Cap/Hoodies and T Shirt.

This includes all the attributes associated with every merchandise like color, size, selling price and the vendor associated with the merchandise. Vendor ID is the foreign key here as every merchandise is associated with a vendor.

| Attribute Name | Description | Data Type | Remarks |
|----------------|--|------------|--------------|
| MercID | Auto-incremented and generated ID - it is unique for every merchandise | AUTONUMBER | Primary Key |
| MerchType | Belt/Cap/Hoodies/T-Shirt | SHORT TEXT | Required |
| MerchName | Name of merchandise | SHORT TEXT | Not Required |
| Size | S- XXXL | SHORT TEXT | Required |
| Color | (Like "Red" Or "Blue" Or "Green" Or "Black" Or "White" Or "Orange") | SHORT TEXT | Required |
| SellingPrice | Currency Data Type | CURRENCY | Required |
| Image | Image of merchandise | ATTACHMENT | Not Required |
| VendorID | Each merchandise is associated with a vendor ID | NUMBER | Foreign Key |

Order Table:

This order table has all the details associated with the order. The type of order, the price associated, and the type of payment customer is willing to perform.

This table is our important table as PromoID, PaymentID and Student ID are the foreign keys associated with this table. The order table has a unique order ID which gets auto incremented with every order.

| Attribute Name | Description | Data Type | Remarks |
|-----------------------|---|------------------|-----------------------------|
| OrderID | Unique ID for every customer | AUTONUMBER | Primary Key |
| OrderDate | Date of the order placed | DATE/TIME | Required |
| OrderType | In Store / Delivery | SHORT TEXT | Required |
| TotalPrice | The Total price of all the products purchased | CURRENCY | Required |
| DiscountedPrice | Price after promo code has been applied | CURRENCY | Required |
| PromoID | From the promo table | NUMBER | Foreign Key Not Required |
| PaymentID | Obtained from the payment table | NUMBER | Foreign Key |
| StudentID | Obtained from the student table | NUMBER | Foreign Key |

OrderLine Table:

Order Line table is for all the merchandises and the quantity they are needed in. Here Order ID and Merchandise ID are the foreign keys which help the OrderLine table suffice. The OrderLine ID automatically gets incremented with every new order being placed.

| Attribute Name | Description | Data Type | Remarks |
|----------------|---|------------|-------------|
| OrderLineID | This attribute increments automatically with every new entry in the order | AUTONUMBER | Primary Key |
| Quantity | Numerical | NUMBER | Required |
| OrderID | OrderID comes from the Order table | NUMBER | Foreign Key |
| MercID | MerchID comes from the Merchandise table | NUMBER | Foreign Key |

Payment Table:

This payment table has information regarding to the payment details like card number, payment type and this is in turn associated with Address ID and Student ID. Every payment detail is associated with a unique payment ID.

| Attribute Name | Description | Data Type | Remarks |
|----------------|---|------------|--------------|
| PaymentID | This attribute increments automatically with every new entry in the order | AUTONUMBER | Primary Key |
| CardNumber | Has to be digits | NUMBER | Not Required |
| PaymentType | Credit/ Debit/Cash | SHORT TEXT | Required |
| AddressID | Takes AddressID (home/billing) from the Address table | NUMBER | Foreign Key |

Delivery Table:

This table has delivery details which has a Delivery ID associated where the foreign key to this tables are OrderLine ID and Address ID which contain all the necessary details.

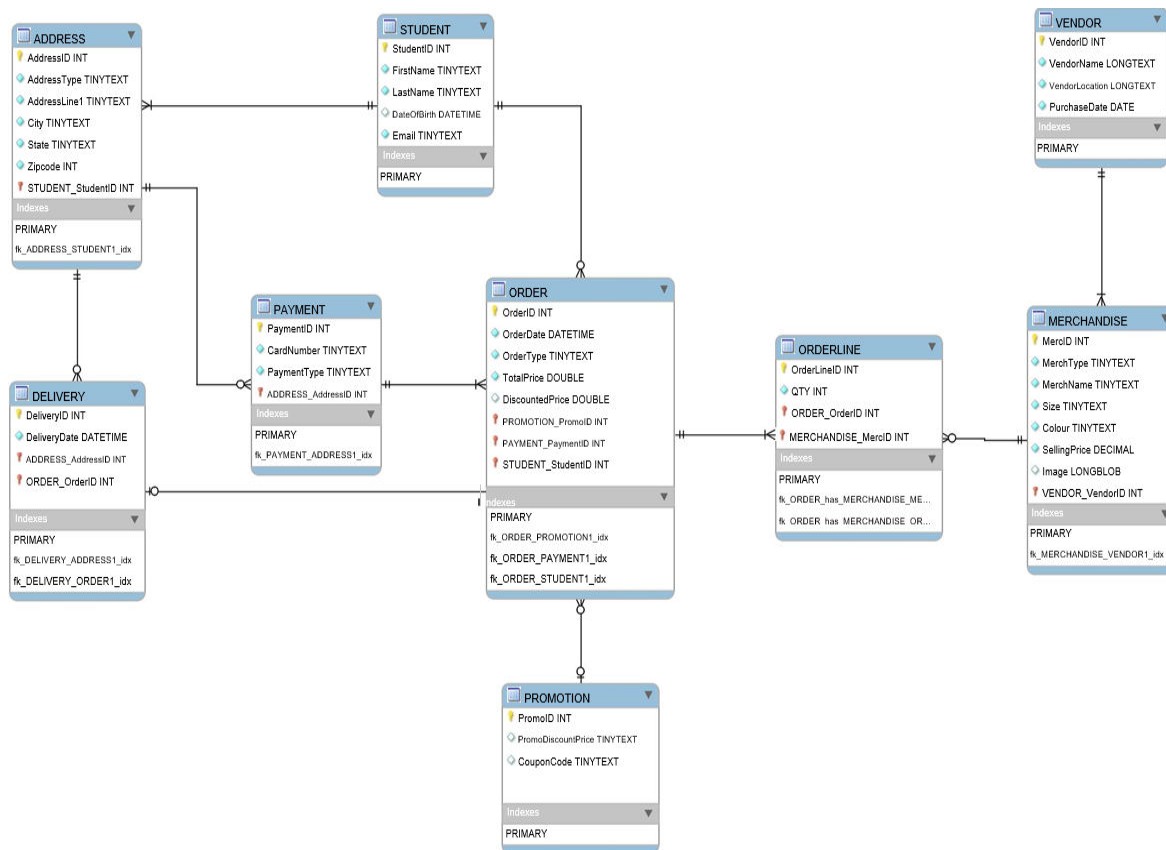
| Attribute Name | Description | Data Type | Remarks |
|----------------|--|------------|-------------|
| DeliveryID | This attribute increments automatically with every new entry in the delivery | AUTONUMBER | Primary Key |
| DeliveryDate | DD/MM/YYYY | DATE | Required |
| OrderID | Used to fetch order details from the Order table | NUMBER | Foreign Key |
| AddressID | Destination address is taken from the Address table | NUMBER | Foreign Key |

Entity Relationship Diagram

The ER diagram was designed on MY SQLWORK BENCH. As this tool does not support SHORT TEXT and NUMBER, we used TINY TEXT and INT instead.

Link to ER Diagram in case resolution of image within the document is compromised:

<https://imgur.com/UzoA0mY>



Relational Schema:

STUDENT (StudentID, FirstName, Lastname, DateOfBirth, Email)

ADDRESS (AddressID, AddressType, AddressLine, City, State, Zip, *StudentID*)

VENDOR (VendorID, VendorName, VendorLocation, PurchaseDate)

MERCHANDISE (MercID, MerchType, *VendorID*, MerchName, SellingPrice, Size, Color, Image)

ORDER (OrderID, OrderDate, OrderType, *PromoID*, TotalPrice, *PaymentID*, *StudentID*, DiscountedPrice)

ORDERLINE (OrdLineID, *OrderID*, *MercID*, Quantity)

PAYMENT (PaymentID, *AddressID*, CardNumber, PaymentType)

PROMOTION (PromoID, PromoDiscountPrice, CouponCode)

DELIVERY (DeliveryID, *OrderID*, DeliveryDate, *AddressID*)

COMET CLOSET MAIN MENU

ADMIN LOGIN & USER LOGIN:

Welcome to the main page of the database.

It asks for the admin details or user login for the students coming to the store to buy the merchandise.



DATA INPUT AND SCREEN FORMS:

ADMIN OPERATIONS:

Once the admin enters the admin id and password, he/she can enter the admin operations page where he can navigate through various forms to change all kinds of details as well as view insights on the customer purchases.

Hint: (Professor Dogan Please USE ADMIN as ID and 12345 as Password)

This page is the admin operations page which has an overview of all the operations of the Admin can carry out.

Admin Operations image:



MERCHANDISE CATALOGUE:

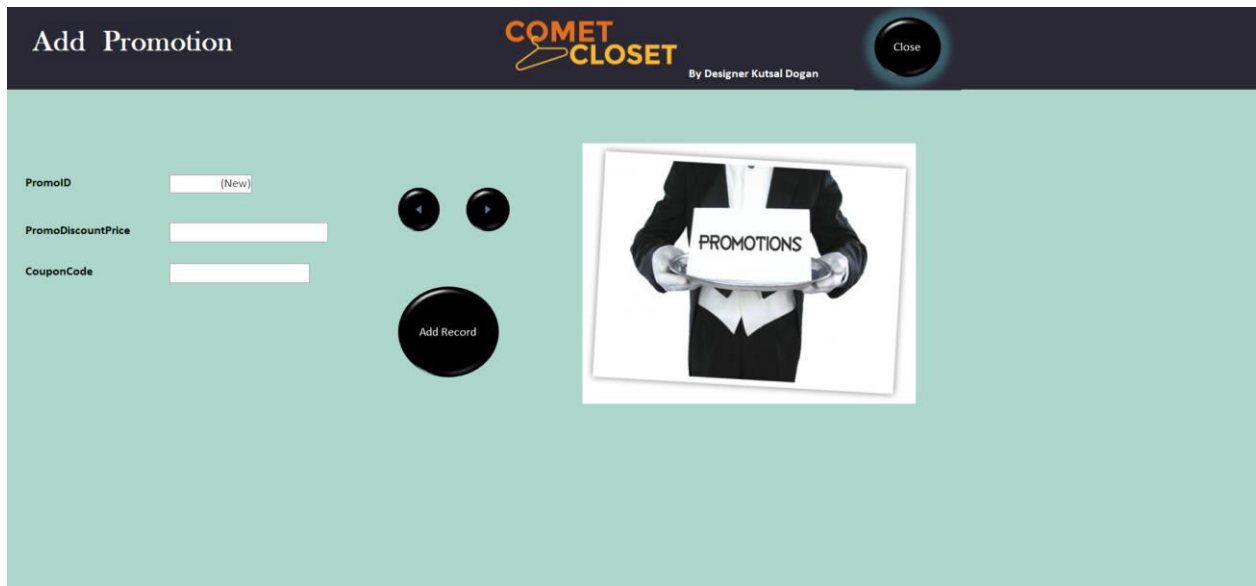
For the benefit of the customer and in order to increase marketing , new merchandises can be added using this feature.

The logo for "COMET CLOSET" is located in the top right corner of the form. It features the word "COMET" in orange and "CLOSET" in yellow, with a stylized orange hanger icon. Below the logo, it says "By Designer Kutsal Dogan".

| ADD MERCHANDISE | | COMET CLOSET By Designer Kutsal Dogan | | CLOSE |
|-----------------|----------------------------------|--|--|----------------------------|
| MerchID | <input type="text" value="New"/> | <div></div> | | <div>Add Merchandise</div> |
| MerchType | <input type="text"/> | | | |
| VendorID | <input type="text"/> | | | |
| MerchName | <input type="text"/> | | | |
| Size | <input type="text"/> | | | |
| Color | <input type="text"/> | | | |
| SellingPrice | <input type="text"/> | | | |

ADD PROMOTIONS:

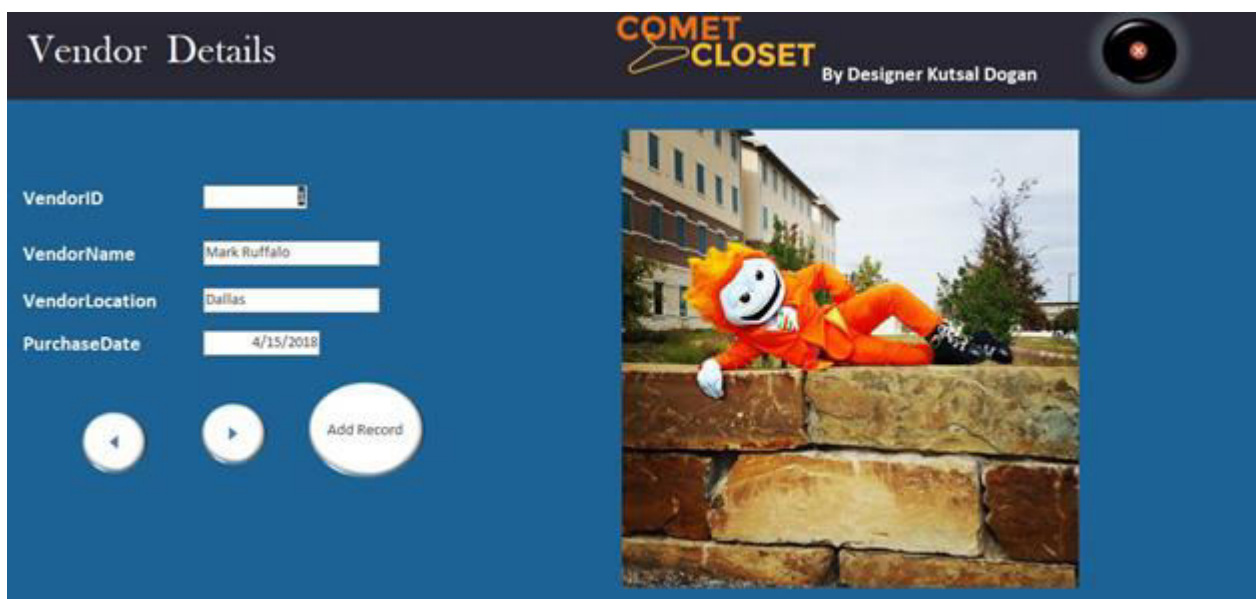
To increase sales and attract customers admin can add records of other promo codes.



The screenshot shows the 'Add Promotion' interface. At the top, there is a dark header with the 'COMET CLOSET' logo, the text 'By Designer Kutsal Dogan', and a 'Close' button. The main area has a light green background. On the left, there are three input fields: 'PromoID' with a '(New)' placeholder, 'PromoDiscountPrice', and 'CouponCode'. To the right of these fields are two small circular buttons with left and right arrows, and a larger circular button labeled 'Add Record'. On the far right, there is a square image placeholder showing a person in a suit holding a sign that says 'PROMOTIONS'.

ADD VENDOR:

As an admin we can view all the Vendors associated with our business and also add other vendors to the system.



The screenshot shows the 'Vendor Details' interface. At the top, there is a dark header with the 'COMET CLOSET' logo, the text 'By Designer Kutsal Dogan', and a circular button with a red 'X' icon. The main area has a blue background. On the left, there are four input fields: 'VendorID', 'VendorName' (containing 'Mark Ruffalo'), 'VendorLocation' (containing 'Dallas'), and 'PurchaseDate' (containing '4/15/2018'). Below these fields are three circular buttons: two with left and right arrows, and a larger one labeled 'Add Record'. On the right, there is a large rectangular image placeholder showing an orange and yellow mascot character sitting on a stone wall.

STUDENT DETAIL:

In the user login this is the main page which the user will come across where if he/she are UTD students(current/ alumni) can register themselves in our portal using Student ID as a primary identification number.



STUDENT CREATE ORDER:

After registering with Comet Closet, customer can place an order in this portal hassle free by just finding student ID in the drop down. The student can create the orders from this table and finalize the merchandise he/she wants to buy. The customer simply has to put the details and the order will be placed with the that particular person's address along with the invoice which he can create from the shop associate.

The screenshot shows a web interface titled "Create Order" for "COMET CLOSET By Designer Kutsal". The form is set against a dark green background. It contains two columns of input fields. The left column includes fields for StudentID (a dropdown menu), ORDER_OrderID (a text field with a "New" button), OrderDate, OrderType (a dropdown menu), MercID (a dropdown menu), Quantity, SellingPrice, TotalPrice, PromoID (a dropdown menu), and DiscountedPrice. The right column includes fields for PaymentID (a text field with a "(New)" button), AddressID (a dropdown menu), Card Number, and Payment Type (a dropdown menu). A large, dark, circular "Add Record" button is positioned in the lower right area of the form. A "CLOSE" button is located in the top right corner of the header.

| | | | |
|-----------------|----------------------------------|--------------|--|
| StudentID | <input type="text"/> | PaymentID | <input data-bbox="1036 741 1222 766" type="text" value="{New}"/> |
| ORDER_OrderID | <input type="text" value="New"/> | AddressID | <input type="text"/> |
| OrderDate | <input type="text"/> | Card Number | <input type="text"/> |
| OrderType | <input type="text"/> | Payment Type | <input type="text"/> |
| MercID | <input type="text"/> | | |
| Quantity | <input type="text"/> | | |
| SellingPrice | <input type="text"/> | | |
| TotalPrice | <input type="text"/> | | |
| PromoID | <input type="text"/> | | |
| DiscountedPrice | <input type="text"/> | | |

Add Record

CLOSE

REPORTS:

DATE ORDER REPORT:

This report gives an extensive detail about the monthly sales in terms of revenue and the percentage so that the store can plan the inventory according to the data generated. The store will be better equipped at making an informed decision about the monthly forecasting.

| Date Order | | | | | | | |
|---------------------------|---------|-----------|-----------|------------|-----------|------------|-----------------|
| OrderDate by Month | OrderID | OrderDate | OrderType | TotalPrice | PaymentID | StudentID | DiscountedPrice |
| April 2016 | 21 | 4/16/2016 | InStore | \$10.00 | 1 | 2021383233 | \$10.00 |
| Sum of Total Sales | | \$10.00 | | | | | |
| Percentage of Grand Total | | 1.11% | | | | | |
| February 2017 | 16 | 2/23/2017 | Delivery | \$20.00 | 3 | 1234567567 | \$18.00 |
| Sum of Total Sales | | \$20.00 | | | | | |
| Percentage of Grand Total | | 2.22% | | | | | |
| May 2017 | 9 | 5/31/2017 | Delivery | \$35.00 | 6 | 2021383243 | \$35.00 |
| Sum of Total Sales | | \$35.00 | | | | | |
| Percentage of Grand Total | | 3.89% | | | | | |
| June 2017 | 10 | 6/6/2017 | InStore | \$50.00 | 2 | 1234567161 | \$33.50 |
| | 11 | 6/30/2017 | InStore | \$105.00 | 12 | 1234567567 | \$35.00 |
| | 13 | 6/21/2017 | Delivery | \$40.00 | 11 | 1234567893 | \$36.00 |
| | 15 | 6/3/2017 | InStore | \$15.00 | 8 | 2021383233 | \$15.00 |
| Sum of Total Sales | | \$210.00 | | | | | |
| Percentage of Grand Total | | 23.33% | | | | | |
| July 2017 | 12 | 7/19/2017 | Delivery | \$20.00 | 5 | 1234567890 | \$20.00 |
| Sum of Total Sales | | \$20.00 | | | | | |
| Percentage of Grand Total | | 2.22% | | | | | |
| September 2017 | 17 | 9/13/2017 | Delivery | \$120.00 | 5 | 1234567890 | \$60.00 |

ORDERS PROMOTION REPORT:

The orders and promotion report will help the store decide on offers to lure the students. The store can also keep track of the percentage of discount offered so that they do not make loss at the expense of heavy discounts.

| Orders By Promotion | | | | | | |
|---------------------------------------|-----------|-----------|------------|-----------|------------|-----------------|
| PromoID | | | | | | |
| OrderID | OrderDate | OrderType | TotalPrice | PaymentID | StudentID | DiscountedPrice |
| 3 | 4/3/2018 | InStore | \$10.00 | 2 | 1234567161 | \$10.00 |
| 9 | 5/31/2017 | Delivery | \$35.00 | 6 | 2021383243 | \$35.00 |
| 12 | 7/19/2017 | Delivery | \$20.00 | 5 | 1234567890 | \$20.00 |
| 15 | 6/3/2017 | InStore | \$15.00 | 8 | 2021383233 | \$15.00 |
| 20 | 2/1/2018 | Delivery | \$40.00 | 2 | 1234567161 | \$40.00 |
| 21 | 4/16/2016 | InStore | \$10.00 | 1 | 2021383233 | \$10.00 |
| Sum | \$130.00 | | | | | |
| Average | \$21.67 | | | | | |
| Percentage of Total Discounts Offered | 21.72% | | | | | |
| PromoID | 1 | | | | | |
| OrderID | OrderDate | OrderType | TotalPrice | PaymentID | StudentID | DiscountedPrice |
| 2 | 4/15/2018 | InStore | \$20.00 | 1 | 2021383233 | \$15.00 |
| 99 | 4/18/2018 | Delivery | \$60.00 | 32 | 2013198181 | \$45.00 |
| Sum | \$60.00 | | | | | |
| Average | \$30.00 | | | | | |
| Percentage of Total Discounts Offered | 10.03% | | | | | |

MERCHANDISE BY VENDOR:

The report gives the merchandise sold by the vendor details. This helps in making an informed decision about the type of products that are in demand from a vendor. The store can use promotional offers to sell more of those merchandise and make heavy profits.

| Merchandises By Vendor | | | | | | |
|---------------------------|-----------|-------------------|------|-------|--------------|--|
| VendorID 1 | | | | | | |
| MercID | MerchType | MerchName | Size | Color | SellingPrice | |
| 3 | Belt | Dallas Mavs | M | Green | \$10.00 | |
| 4 | Cap | UTD_Designer_Cap | M | Blue | \$10.00 | |
| 5 | Cap | UTD_Designer_Cap | M | Green | \$10.00 | |
| Sum | | | | | \$30.00 | |
| Percentage of Grand Total | | | | | 6.25% | |
| VendorID 2 | | | | | | |
| MercID | MerchType | MerchName | Size | Color | SellingPrice | |
| 10 | Hoodie | UTD_Designer_Hood | XS | White | \$30.00 | |
| 11 | Hoodie | UTD_Designer_Hood | S | White | \$30.00 | |
| 12 | Hoodie | UTD_Designer_Hood | M | White | \$30.00 | |
| 24 | Cap | UTD_Cap_Blue | M | Blue | \$10.00 | |
| Sum | | | | | \$100.00 | |
| Percentage of Grand Total | | | | | 20.83% | |
| VendorID 3 | | | | | | |
| MercID | MerchType | MerchName | Size | Color | SellingPrice | |
| 6 | Belt | UTD Belt | S | Black | \$15.00 | |

Link to final video:

<https://www.youtube.com/watch?v=pfr24msHRWk&t=3s>

Individual Contributions

Gokul Karthikeyan – gxk171030

Developer and Mastermind, Gokul has been central to the development of the Comet Closet Portal. With great enthusiasm and proactiveness, he created the tables, the interactive forms and also gave inputs towards the design of the relational schema. Gokul also helped other members in accomplishing their respective tasks.

Nishidh Vilas Lad – nv1170030

Nishidh, our very own Database Administrator (DBA), ensured performance, integrity and monitored the system to ensure there were no flaws in our database. Nishidh also helped in designing our report and was the essential spice in our video recording. He also helped design the relational schema.

Bhavikshah Atulkumar – bxa170830

Bhavik, our Quality Analyst and Tester, tested every step of the portal using cases and samples to detect errors, and rectify them. He keenly kept track of the activities on the portal and suggested improvements in the process, especially in designing and making the user interface smoother. He also helped generate the final reports in MS Access and record the final video.

Sheetal Nayak – sxn172530

Brainstormer of the idea, Sheetal suggested the concept of our project. Sheetal put together the various documents and reports, and made sure that the project was completed effectively and well within the deadline. Sheetal also helped in populating the database with a wide range of values by giving input to all the forms in the database. The audio to the video was given by Sheetal.

Tasneem Nazreen Fnu – txf161630

Tasneem, our very own architect designed the Entity Relationship diagram. She kept reviewing the requirements and in an agile manner ensured that the appropriate changes were incorporated in the design. Tasneem considered every objective of the project and made changes accordingly.