INSPIRE-WORKSHOP ARTS

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BY GROUP D:
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A----- T-----, &
C----- O---

INTRODUCTION

Group D has been hired to create a transactional information system for Inspire-Workshop Arts. A company that offers art classes, art room and supply rentals, and art supply purchases to their customers.

The information system we created keeps track of their business transactions, scheduling and inventory. This will help them operate and manage their small business, more efficiently.
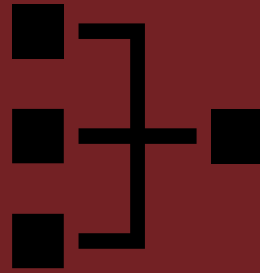
In this presentation, you will see the relational logic we kept in mind, while creating their new system.
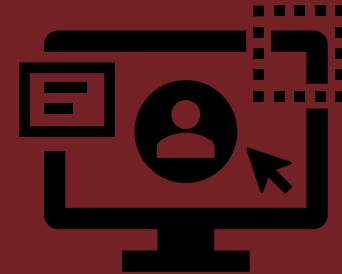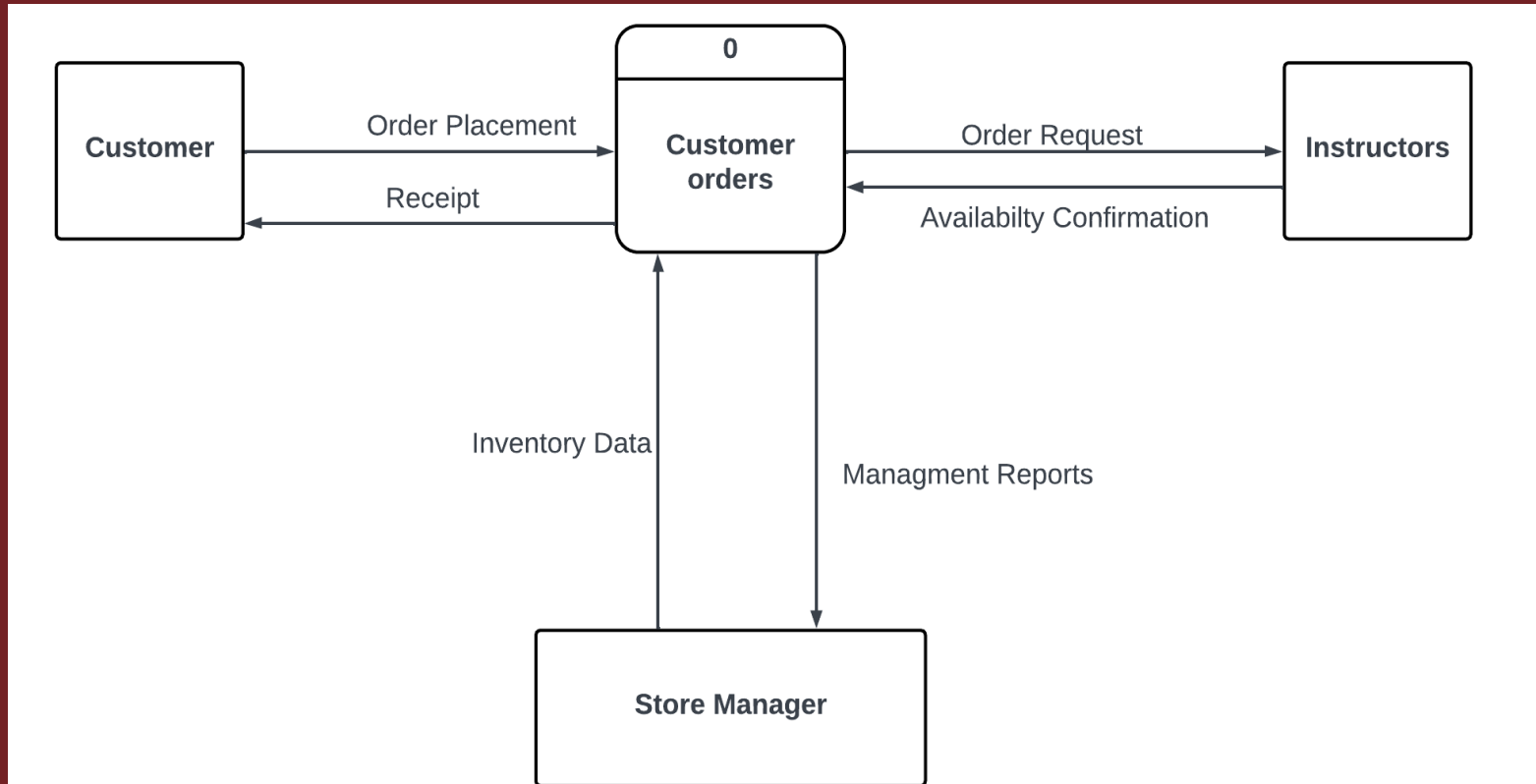
AGENDA

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DFD (Context and Level 0)　　　ER Diagram　　　User interface pages

DFD (CONTEXT): SCOPE OF THE SYSTEM

Context diagram is an overview of an an organizational system that shows:
- The system boundaries
- External entities that interact with the system
- Major information flows between the entities and the system

DFD (LEVEL-0)

Diagram labels:

Availability Confirmation
Customer Data — CUSTOMER — Order Placement
INSTRUCTOR
Receipt
1.0 Manage Customer Orders
Order Request
D7 Customer Information File
Sales Data
Inventory Sold
5.0 Update Inventory File
Class Registration
2.0 Manage Classes Selected
Class Occupancy
Room Reservations
Available Equipment
Equipment Rental Order
Inventory Data
3.0 Manage Room Rentals
D1 Sales File
4.0 Manage Equipment Rentals
Room Rental Data
Equipment Rental Data
D5 Equipment Rental File
Inventory Sold Data
D6 Inventory
D3 Classes Filled File
D4 Room Reservation File
Room Reservation Reports
Equipment Rental Reports
Revenue Data
6.0 Produce Management Reports
Inventory Reports
Class Spots Filled Reports
Scheduled Management Reports
STORE MANAGER

The level-0 diagram is a data flow diagram that represents a system's major processes, data flows, and data stores at a high level of detail.

Sources:
Customer: Provides orders and rental requests.
Instructor: Supplies class details.
Manager: Manages inventory and report inputs.

Processes:
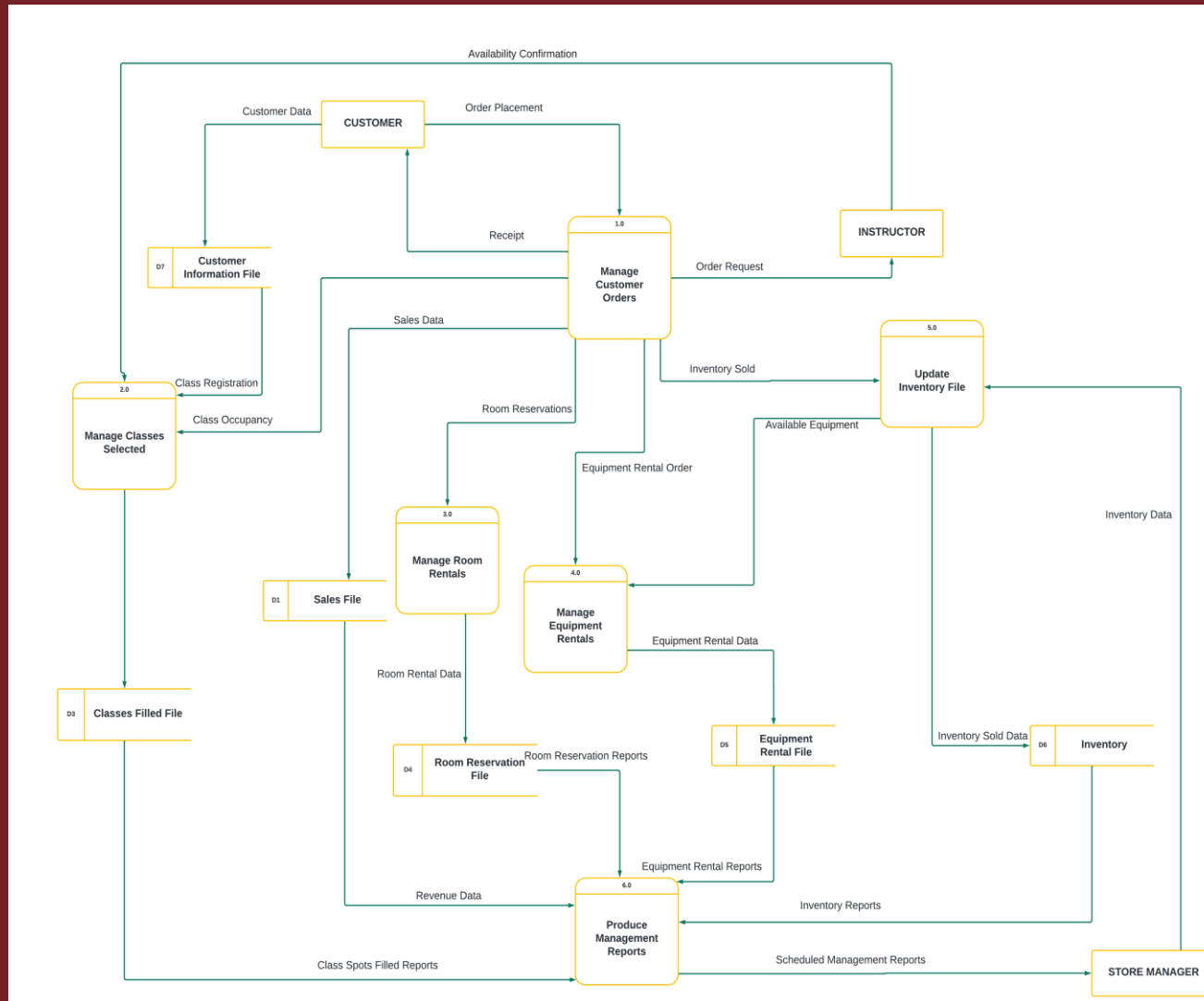**Manage Customer Orders**: Processes and fulfills orders.
Manage Room Rentals: Allocates rooms and updates inventory.
Manage Equipment Rentals: Handles equipment allocation and inventory updates.
Update Inventory File: Keeps inventory records accurate.
Manage Classes: Organizes and schedules classes.
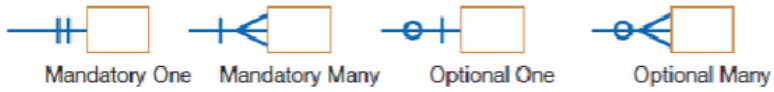**Produce Management Reports**: Creates reports for decision-making.
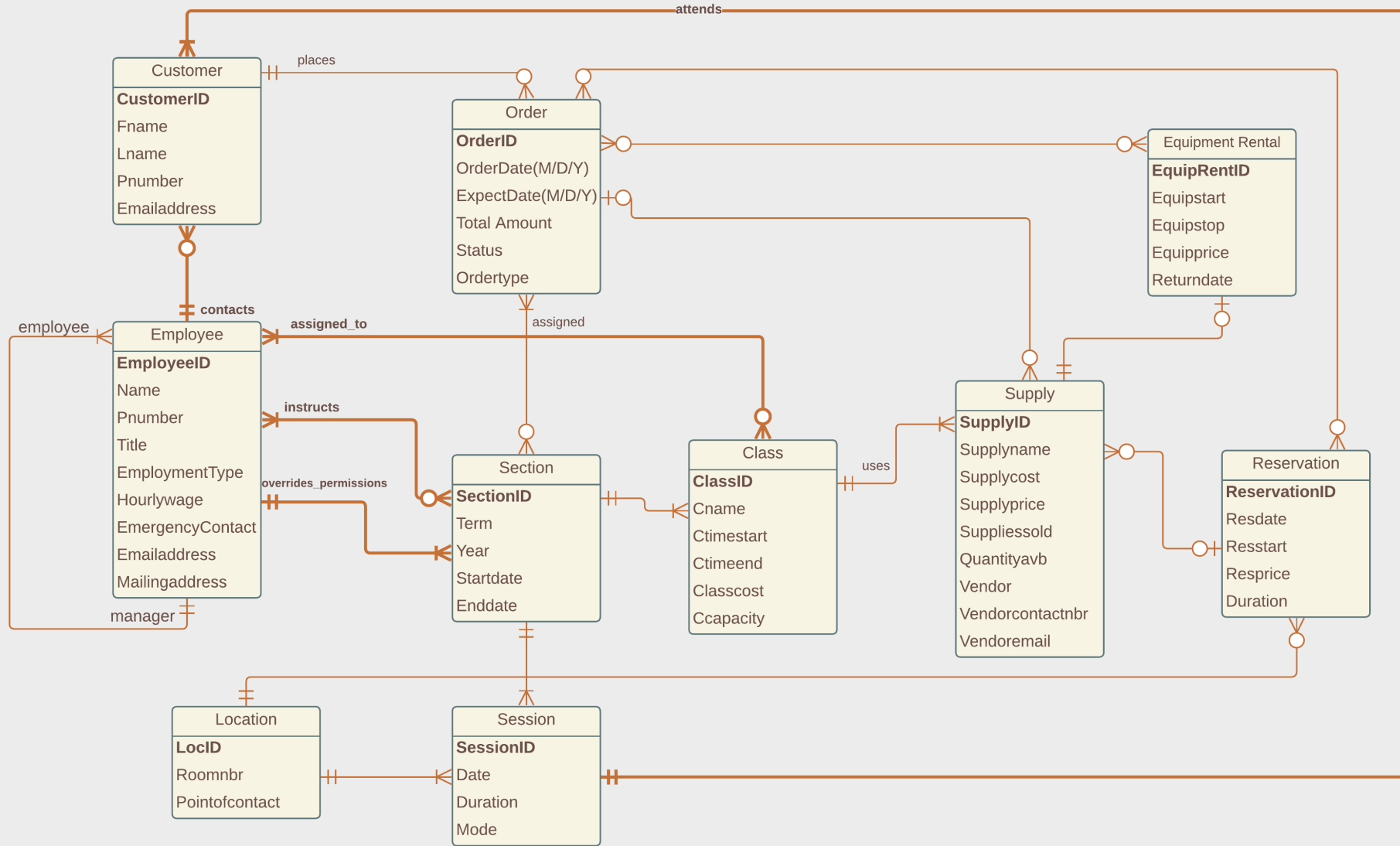
ER DIAGRAM

What is it?
- An entity-relationship data model is a detailed, logical representation of the entities, associations and data elements of an organization.

- *An **ER Diagram** is a graph showing the entity-relationship data model.*

- **Entity**: Person, place, object, event or concept, about which data is maintained.
- **Entity type**: Collection of entities with common characteristics or properties.
- **Entity instance**: Single occurrence of an entity type.

- **Attribute**: Named property or characteristic of an entity.
  - *Noun, and is unique.*
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- **Relationship**: Association between instances of one or more entity types.
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- **Degree**: Number of entity types participating in a relationship.

ER DIAGRAM

Relationship Cardinality

Mandatory One | Mandatory Many | Optional One | Optional Many

Managers Supply/Inventory Request Form

Manager completing form: [Manager name and last name]

Manager contact number: [Manager contact/mobile number: Ex (786)305-4912]

Vendor Name: [Enter name of vendor]

Vendor Contact Number: [Enter vendor contact/support number]

Vendor Email: [Enter vendor email]

Supply ID: [Ex: 00-00]

Supply Name: [Ex. Paint brush (soft-bristle)]

Quantity Requested: [Add quantity. Ex: 50]

Supply cost: [In dollars $]

Request more supplies? [Yes] [No]

Comments/concerns: [Add any comments, concerns, or reasonings for your request.]

USER INTERFACE: MANAGERS SUPPLY REQUEST FORM

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Used to request re-supply of a unit of inventory/supply.

USER INTERFACE: MANAGERS ROOM RESERVATION AND SUPPLY REPORT

Managers Room Reservation and Supply Report

Manager completing form: John

Manager contact number: (343)678-9998

Day of report: 3/24/2024

Daily Room Reservation Information

Room#	ClassID	Time Starting(00:00)	Time Ending(00:00)	Total Price ($)
121	4431	12:00PM	1:30PM	$100
143	5017	1:10PM	2:30PM	$90
243	5552	6:00PM	7:00PM	$100
111	4124	6:15PM	7:30PM	$120

Add more reservations? Yes   No

Daily Supply Information

SupplyID	Supply Name	Supply cost	Supply price	Supplies sold	Quantity Available	CALL FOR RESTOCK?
01-24	Paint Brush (soft)	$4	$10	33	78	NO
02-09	Acrylic paint	$5	$12	6	43	YES
02-08	Canvas	$10	$22.50	22	14	YES
03-02	Artist Startup Pack	$12	$25	23	47	NO

Add more supply information? Yes   No

Useful for tracking utilization of supplies, rooms and reservations.

INSTRUCTOR FACING-FORM

Detailed Employee Information Form

Contact Information

Name

Example, John Johnson

Email

name@example.com

Phone

(000)-000-0000

Preferred Schedule

1
2
3
4

Subject/Area of Expertise:

(Please specify if you have a preference for teaching specific techniques or mediums.)

Teaching Experience:

(Please provide a brief overview of your relevant teaching experience, including any certifications or qualifications)

Personal Information: Sections for name, contact details, department, and any other instructor identification data.

• **Area of expertise section**: Options to enter types of Technique specific teaching styles

• **Availability Scheduler**: A calendar or scheduling tool to mark available times for classes, office hours, and other obligations.

• Credentials Section: Previous education and work experience, portfolio of work submission.

SCHEDULE INFORMATION REPORT

Weekly Schedule Information Reports

InspireWorkshop Arts

InspireWorkshop Arts

| Posting Date | 03/24/2024 |
| Print Date | 03/25/2024 |

SessionID	InstructorID	Weekday	Start Time	End Time	Hours Per Day
C3010	E234	Monday	3:30PM	5:00PM	1.5h
C3011	E235	Tuesday	5:30PM	7:00PM	1.5h
C3012	E236	Wednesday	5:30PM	7:00PM	1.5h
C3013	E237	Thursday	7:30PM	9:00PM	1.5h
C3014	E238	Friday	7:30PM	9:00PM	1.5h
C3015	E239	Saturday	8:30PM	10:00PM	1.5h

A Weekly Schedule Report showing class options lists available classes along with their times and days for the week, aiding students and instructors in planning their academic schedules.

EX. OF QUESTIONS WE CAN ANSWER

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1) Which of our sold products produced the most revenue last year?
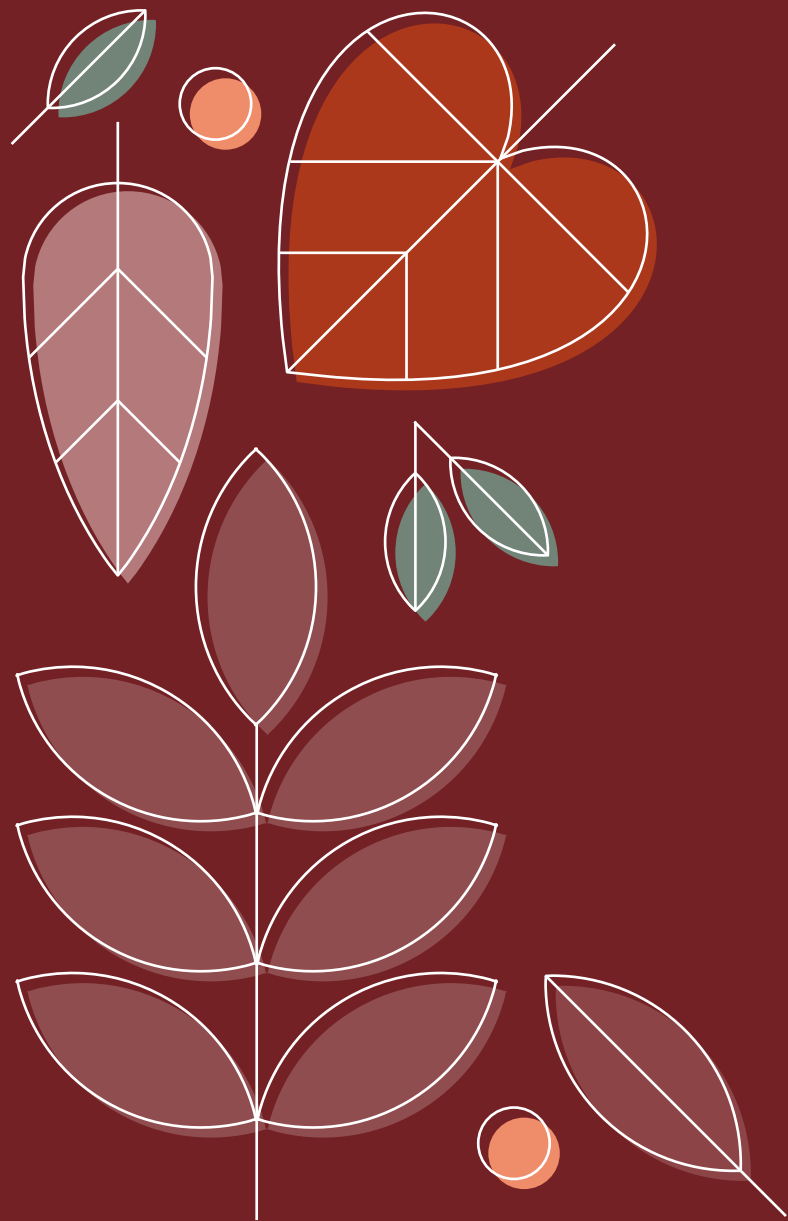
   Using the MAX of the Total Amount attribute on our Order entity, we can filter by Order Date for last year within the same entity, then backtrack to its connection the Supply entity and group by the SupplyID, to then request the MAX SupplyID.

2) Which art class was the most popular last month in terms of student enrollments?

   We can find the right ClassID by backtracking its connection to the Section entity, which connects to the Session entity, by which Customers can directly enroll into. We would do a COUNT CustomerID grouped by ClassID, returning the MAX ClassID.

3) Which room has been our most popular for the last 5 years, in terms of total reservations?

   We find this by doing a COUNT ReservationID filtered by Resdate within the same entity and using the connection to the Location entity to group by LocID and Roomnbr, then asking for the MAX result of Roomnbr.

THANK YOU