

MSYS 30 | PROGRESS REPORT

VENUE

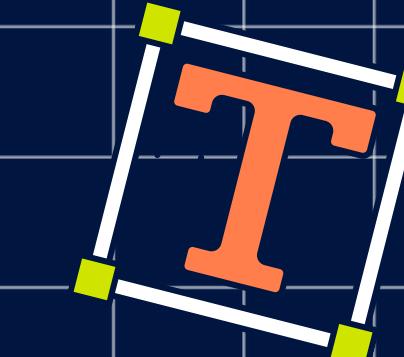
AVAILABILITY

SYSTEM

GROUP 2

Boco, Luna, Valdez

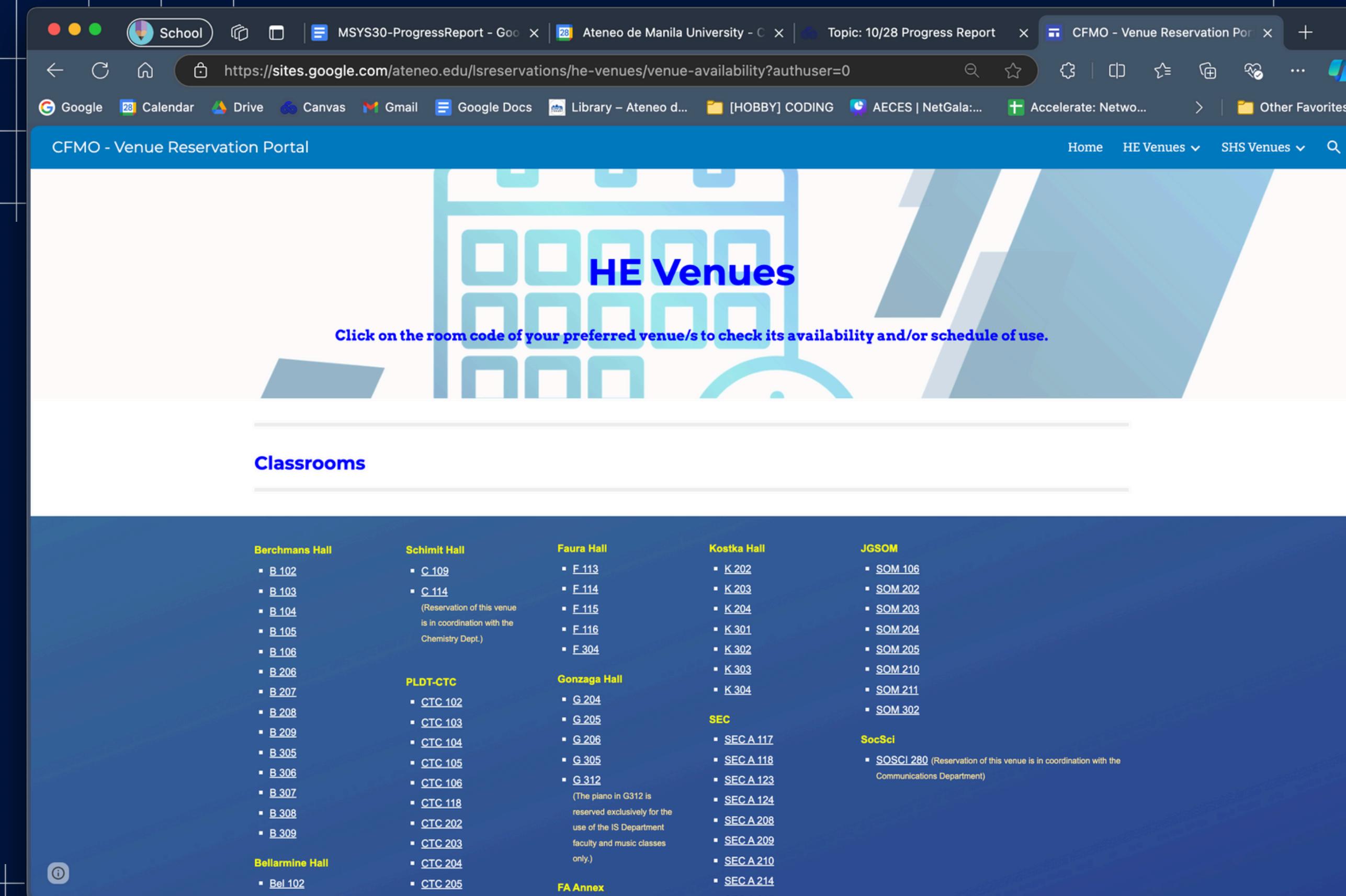
Section C



Venue Availability System

INTRODUCTION





F 113											
Today		October 2024									
Sun	Mon	Tue	Wed	Thu	Fri	Sat					
29	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	30	9:30am REGULAR CLASS 5pm ACTM Department General	Oct 1 9am INTACT 111 11am INTACT 111 6pm REGULAR CLASS: Moved to 2pm Regular Class	2	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	3	9:30am REGULAR CLASS	4		5
6	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	7	9:30am REGULAR CLASS	8 9am INTACT 111 11am INTACT 111 2pm Ateneo Blue Consulting Group 6pm REGULAR CLASS: Moved to 2pm Regular Class	9	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	10	9:30am REGULAR CLASS	11		12
13	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	14	7am JGSOM Sanggunian / Mark 9:30am REGULAR CLASS	15 9am INTACT 111 11am INTACT 111 6pm REGULAR CLASS: Moved to 2pm Regular Class	16	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	17	9:30am REGULAR CLASS	18	1:30pm Philo: Class: Canceled	19
20	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	21	9:30am REGULAR CLASS 5pm OSCI: Punla SA	22 9am INTACT 111 11am INTACT 111 6pm REGULAR CLASS: Moved to 2pm Regular Class	23	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	24	9:30am REGULAR CLASS 5pm Loyola Gaming Onboarding	25	7:30am OSC - Bigkis	26
27	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	28	9:30am REGULAR CLASS	29 9am INTACT 111 11am INTACT 111 6pm REGULAR CLASS: Moved to 2pm Regular Class	30	8am REGULAR CLASS 12:30pm Philo 11.03 D2 2pm Regular Class	31	9:30am REGULAR CLASS	Nov 1		2

Events shown in time zone: Philippine Standard Time

+ Google Calendar

ABOUT THE PROJECT

Focusing on improving the venue reservation system, specifically the **checking of the availability of the venues**

- currently highly manual
 - multiple clicks before receiving data

Group 2



ATENEO DE MANILA UNIVERSITY

Venue Availability System

Progress Report on Final Project

In partial fulfillment of the requirements for the subject

MSYS 30-C (Data, Structures, and Algorithms)

Written by Group 2 of the MSYS 30-C Class

Boco, Jana Almira
Luna, Luis Nathan C.
Valdez, Juliana Ysabelle S.

Submitted to
Josh Daniel L. Ong

A.Y. 2024-2025



PROJECT

OBJECTIVE

CONSOLIDATED

To coordinate the availability of multiple venues into a single monitoring system:

- Use Case: **Students canvassing venues** to book with the CFMO

CONTEXTUALIZED

To view all available venues **specific to the needs of their planned activities**

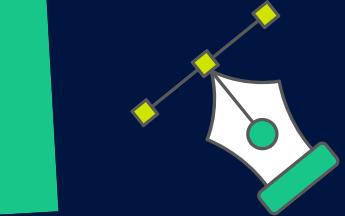
EASY COMPARISON

To **recommend potential venues** with similar capacities





SCOPE OF PROJECT



- **Displays availability only.**
 - Booking is excluded.
- **Limiting to Faura only.**
 - F113, F114, F115, F116, F304, F AVR
- **Venues under CFMO's care.**

Group 2



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MAJOR ACTIVITIES



- **Problem Identification**

- Identify a relevant problem or challenge.
- Identify Algorithm, Data Structure Needs with proposed approach.

- **Design & Implementation**

- Design software solution;
- Implement solution with Algorithms and Data Structures; and
- Test and debug.

- **Analysis & Documentation**

- Execute Evaluative Metrics;
- Analyze Time and Space complexity; and
- Assess implemented information systems solution.

Venue Availability System

TIMELINE



GANTT

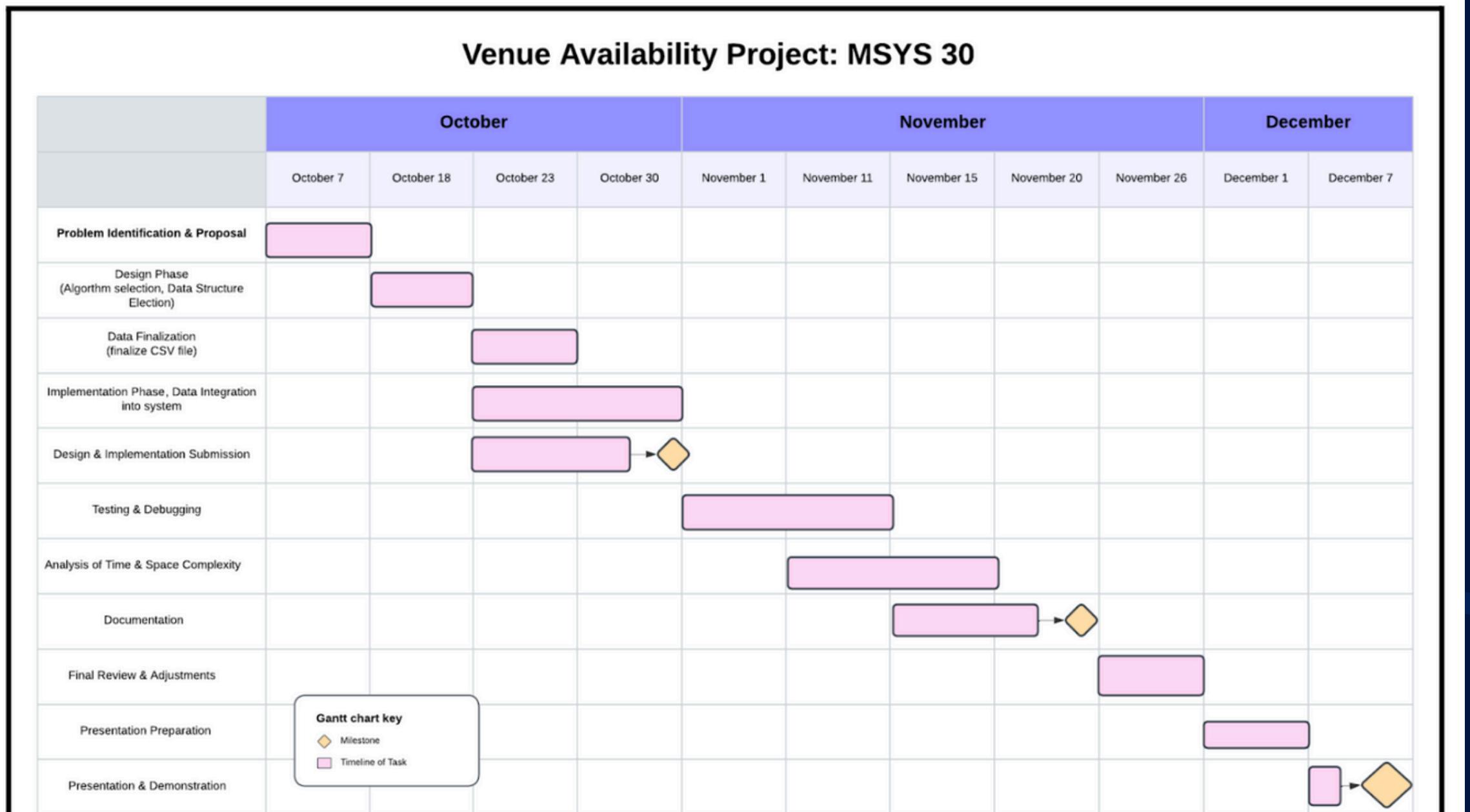
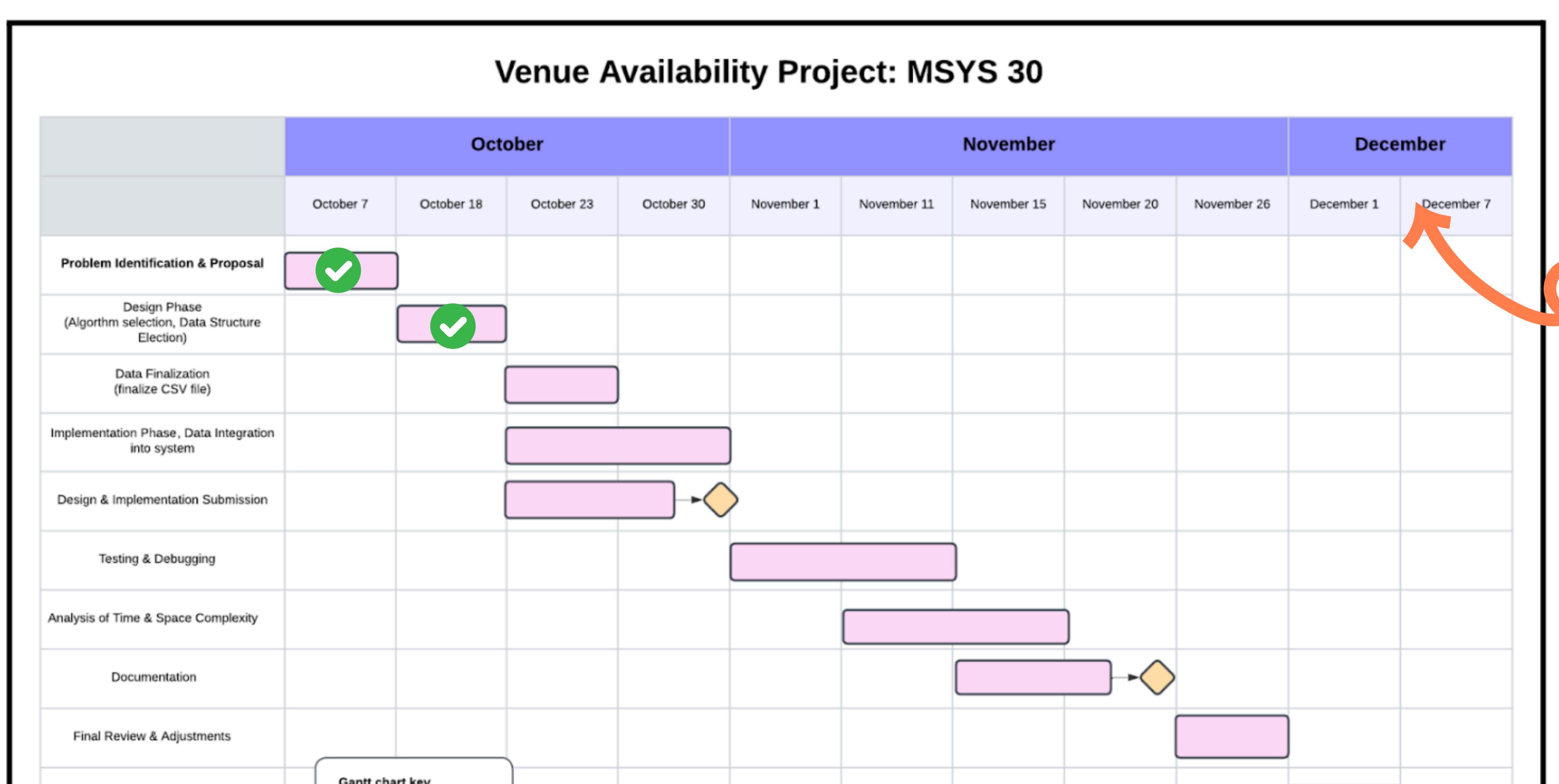


Figure 01. GANTT Chart of Project Development

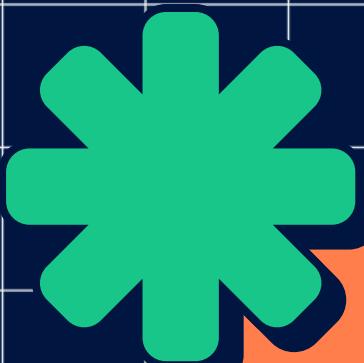


GANTT



Venue Availability System

DESIGN



Venue Availability System

INPUTS AND OUTPUTS

Form collects venue preferences of the user.

The form, once submitted, will filter the data according to the preferences of the user.

Filter or Sort	Filter Options	Sort Options	Remarks
Target Building	<ul style="list-style-type: none"> • Faura <ul style="list-style-type: none"> ◦ Building Code: "F" 	Alphabetical Ascending, Descending	Limited to the System's Scope for Testing
RESERVATION FORM DETAILS			
Target Date	<ul style="list-style-type: none"> • Days <ul style="list-style-type: none"> ◦ 1 to 31 • Month <ul style="list-style-type: none"> ◦ Jan to Dec • Year <ul style="list-style-type: none"> ◦ 20XX 	Chronological Ascending, Descending	
Target Time	<ul style="list-style-type: none"> • 08:00 - 09:30 • 09:30 - 11:00 • 11:00 - 12:30 • 12:30 - 14:00 • 14:00 - 15:30 • 15:30 - 17:00 • 17:00 - 18:30 • 18:30 - 20:00 	Chronological Ascending, Descending	
Capacity Range	<ul style="list-style-type: none"> • 50 to 100 Pax 	Numerical Ascending, Descending	Based on CFMO's LS Facilities Venues for Faura, limited by the System's Scope for Testing

VENUE-SPECIFIC PRESENTATION CAPABILITIES			
Projector Availability	<ul style="list-style-type: none"> • True • False 		
TV Availability	<ul style="list-style-type: none"> • True • False 		
Speaker Availability	<ul style="list-style-type: none"> • True • False 		
Desktop Availability	<ul style="list-style-type: none"> • True • False 		
Mic Connector Availability	<ul style="list-style-type: none"> • True • False 		
VENUE-SPECIFIC SPECIAL PREFERENCES			
AC Availability	<ul style="list-style-type: none"> • True • False 		Based on CFMO's LS Facilities Venues for Faura
Elevator Availability	<ul style="list-style-type: none"> • True • False 		Based on Observation
Facility Type	<ul style="list-style-type: none"> • Lecture Hall • Lecture Room • Classroom 		Based on CFMO's LS Facilities Venues for Faura

Table 06. Example User Input on the Form



ERD

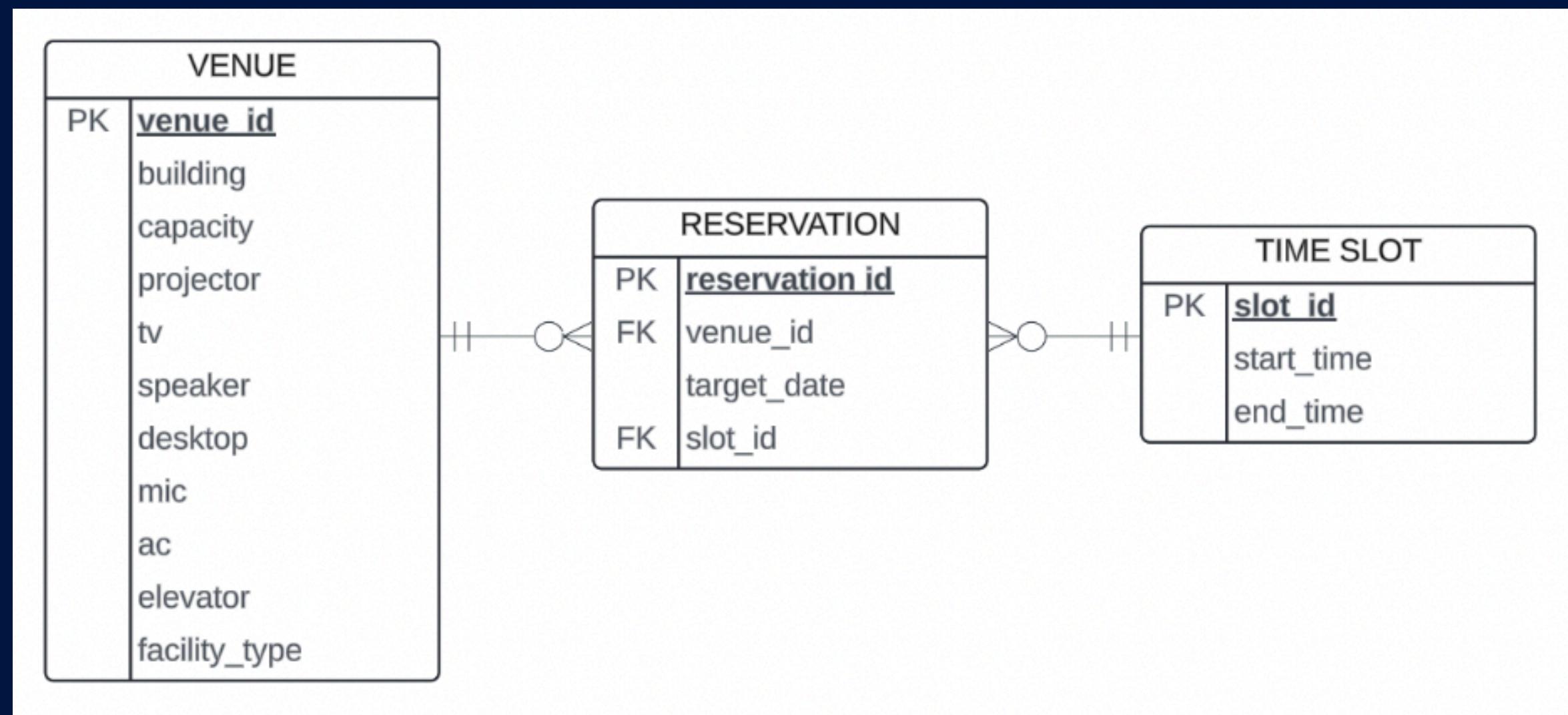


Figure 03. Entity-Relationship Diagram



ERD

Semi-permanent traits of a Venue

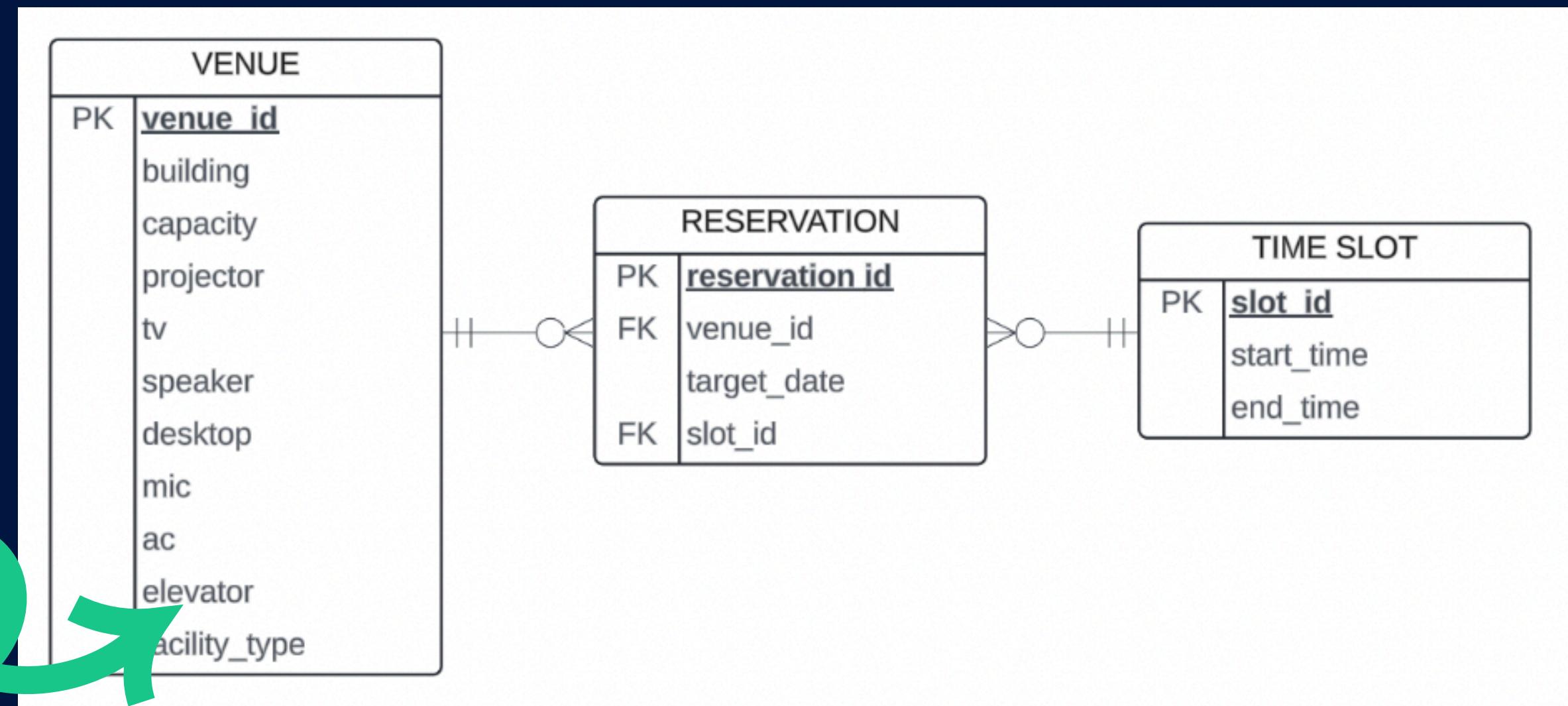


Figure 03. Entity-Relationship Diagram



ERD

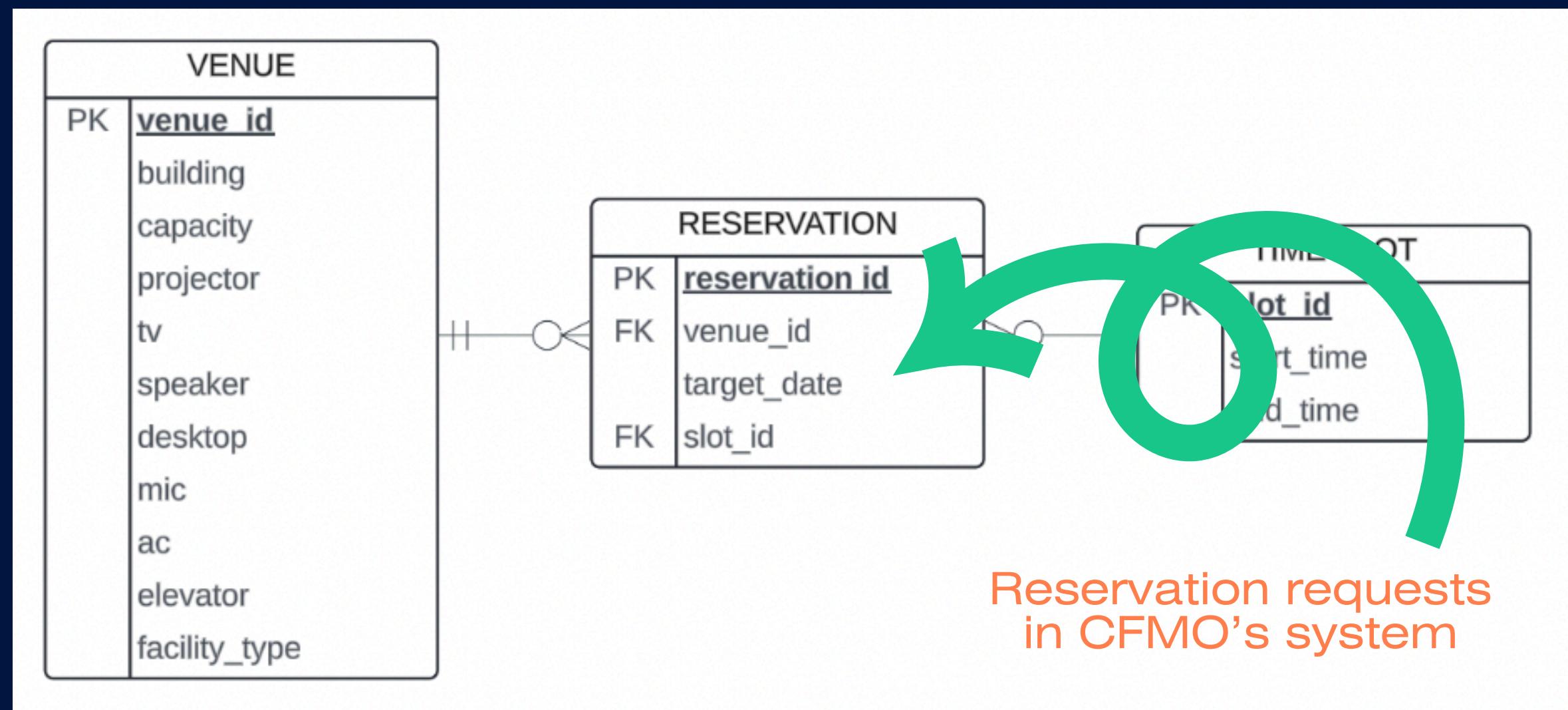


Figure 03. Entity-Relationship Diagram



ERD

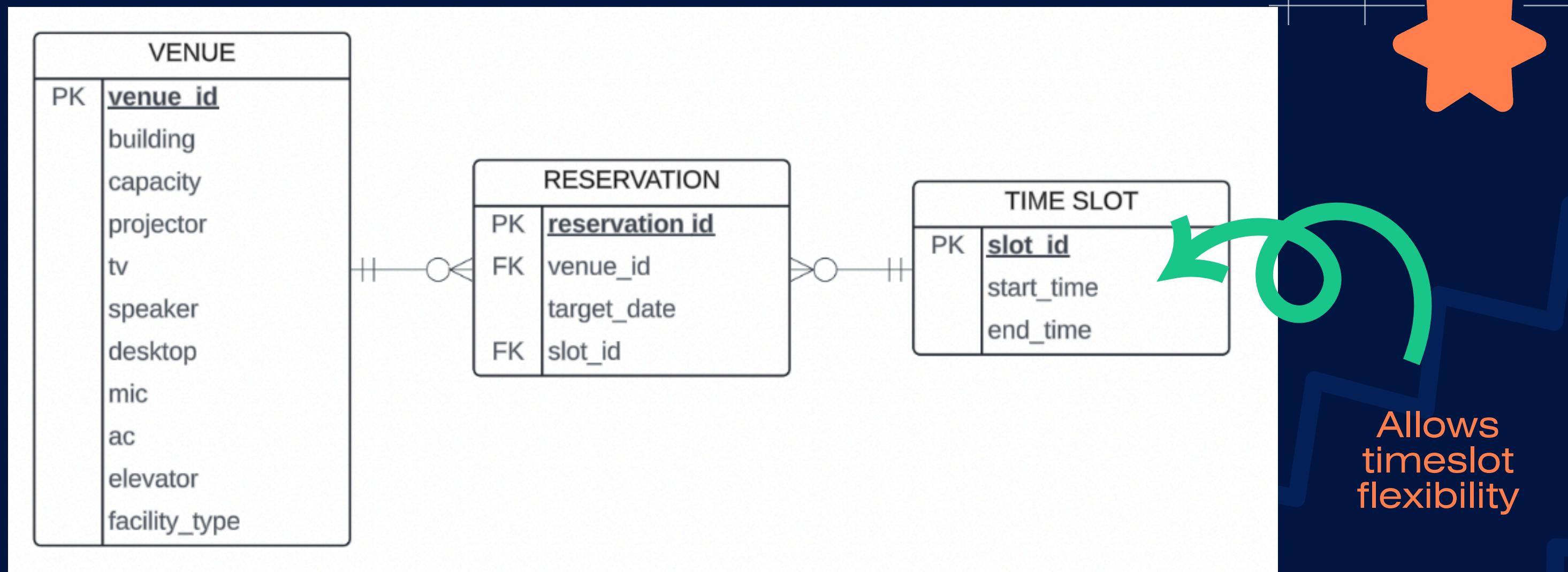


Figure 03. Entity-Relationship Diagram



INTEGRATION



Sheets2GCal

Add-on in GSuite!

The screenshot shows a Google Sheets document titled "Video Demo". The main sheet displays a list of events with columns for Start Date, End Date, Start Time, End Time, Description, Location, Timezone, and Guests. A green icon of a smartphone displaying the number "31" is overlaid on the sheet. To the right, a sidebar titled "Automatic Import/Export" is open, showing options for "Import > Export" (selected), "Export > Import", "Export", and "Import". It also includes a note about syncing changes and a "Sync Order" section. At the bottom, there's a "Start" button and a "STOP ALL IMPORT/EXPORT" button.

Availabilities stored in GCal; Extracted through Apps Script/Add-on



DATA



SCHEMAS

DATASETS

MOCK
APIS

SCENARIOS

PROJECTS

FUNCTIONS

UPGRADE
NOW

New from Mockaroo: Need to generate an [entire relational database](#) in seconds? Try [fabricate](#)

Need some mock data to test your app? Mockaroo lets you generate up to 1,000 rows of realistic test data in CSV, JSON, SQL, and Excel formats.

Need more data? Plans start at just \$60/year. Mockaroo is also available as a [docker image](#) that you can deploy in your own private cloud.

Field Name	Type	Options
id	Row Number	blank: 0 % Σ X
first_name	First Name	blank: 0 % Σ X
last_name	Last Name	blank: 0 % Σ X
email	Email Address	blank: 0 % Σ X
gender	Gender	blank: 0 % Σ X

Dummy Data Generator

For testing and software development purposes



DATA



building	target_date	target_time	capacity	projector	w	speaker	display	mic	et	stereo	facility_type
F	4/22/2023	09:30 - 11:00	95	FALSE	TRUE	TRUE	TRUE	FALSE	TRUE	FALSE	Classroom
F	10/22/2023	09:30 - 11:00	89	FALSE	TRUE	FALSE	TRUE	FALSE	TRUE	TRUE	Classroom
F	7/31/2023	17:00 - 18:30	37	TRUE	TRUE	FALSE	TRUE	TRUE	FALSE	TRUE	Lecture Room
F	1/3/2023	11:00 - 12:30	89	FALSE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE	Classroom
F	1/24/2023	17:00 - 18:30	93	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	Classroom
F	4/3/2023	18:30 - 20:00	34	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	Classroom
F	2/18/2023	09:00 - 09:30	1	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	Lecture Hall
F	11/13/2024	09:30 - 11:00	43	FALSE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	Lecture Hall
F	12/6/2024	09:00 - 09:30	37	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	Classroom
F	7/18/2023	09:00 - 09:30	15	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE	Lecture Hall
F	10/4/2023	17:00 - 18:30	95	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE	FALSE	Lecture Room
F	12/11/2024	09:30 - 11:00	78	FALSE	TRUE	FALSE	FALSE	TRUE	TRUE	TRUE	Lecture Room
F	7/18/2023	08:00 - 09:30	31	FALSE	FALSE	TRUE	TRUE	TRUE	FALSE	TRUE	Classroom
F	5/18/2025	08:00 - 09:30	44	TRUE	TRUE	FALSE	TRUE	FALSE	TRUE	TRUE	Classroom
F	3/6/2025	08:00 - 09:30	41	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	TRUE	Lecture Room

Figure 02. Generated Dummy Data for Venue Availability Requests

venue_id	reservation_id	target_date	slot_id
F 113	F 113-1	11/6/2024	1400-1530
F 114	F 114-2	11/5/2024	1830-2000
F 116	F 116-3	11/19/2024	0830-1000
F 114	F 114-4	11/20/2024	1030-1200
F 115	F 115-5	11/18/2024	1730-1900
F 114	F 114-6	11/19/2024	1000-1130
F 113	F 113-7	11/26/2024	0830-1000
F 115	F 115-8	11/11/2024	1200-1330
Faura AVR	Faura AVR-9	11/3/2024	1330-1500
F 115	F 115-10	11/17/2024	1930-2100
Faura AVR	Faura AVR-11	11/25/2024	1530-1700
F 114	F 114-12	11/13/2024	1300-1430
F 113	F 113-13	11/3/2024	1130-1300
F 113	F 113-14	11/6/2024	1900-2030
F 113	F 113-15	11/15/2024	0900-1030
F 116	F 116-16	11/13/2024	1400-1530
F 116	F 116-17	11/23/2024	1230-1400
F 114	F 114-18	11/25/2024	1200-1330
Faura AVR	Faura AVR-19	11/16/2024	1230-1400
F 115	F 115-20	11/6/2024	1030-1200
F 116	F 116-21	11/7/2024	1930-2100
Faura AVR	Faura AVR-22	11/15/2024	1830-2000

Figure 04. Generated Dummy Data for Reservations

For testing and software development purposes

Dummy Data Generator



USER INTERFACE



To provide a **simple, intuitive yet familiar interface**, the software solution shall comply with typical design conventions

- Nielsen's 10 Usability Heuristics
 - a common framework guiding **interactive design**

Table 07. User Interface Principles

Principle	Corresponding Design in the Software Solution
<i>Visibility of system status</i>	Provides status messages <ul style="list-style-type: none">• Example: "Checking availability...", "Retrieving Reservation Data..."
<i>Match between the system and the real world</i>	Use concepts familiar to users <ul style="list-style-type: none">• Example: "Classrooms"
<i>User control and freedom</i>	Allow users to easily change their venue preferences
<i>Consistency and standards</i>	Implement uniform terminology, layout, and interaction approaches for all design choices in the software
<i>Error prevention</i>	Limiting user input to dropdown choices
<i>Recognition rather than recall</i>	Include a pop-up box when hovering over a venue_id
<i>Flexibility and efficiency of use</i>	Provide a default/easy set-up for the schedule
<i>Aesthetic and minimalist design</i>	The interface is uncluttered; prioritization of a clear and comprehensible design
<i>Help users recognize, diagnose, and recover from errors</i>	Provides notification messages, and user action feedback <ul style="list-style-type: none">• Example: "No venue matches available. Kindly reconsider your preferences.", "Available venues displayed below."
<i>Help and documentation</i>	Available FAQs and step-by-step tutorials on using the solution



*Design takes
inspiration from
Ateneo Canvas*

MOCKUP

Venue Availability System

Filter complete. Available venues displayed below.

Input your venue preferences. If no particular preference, leave blank.

Building	Facility Type	Date	Timeslot	Capacity	Equipment Needed	
Faura	Classroom	10/30/2024	0800-0930	40	Projector, Speaker...	FILTER

Sort by... Order
Capacity Ascending **SORT**

Available Venues

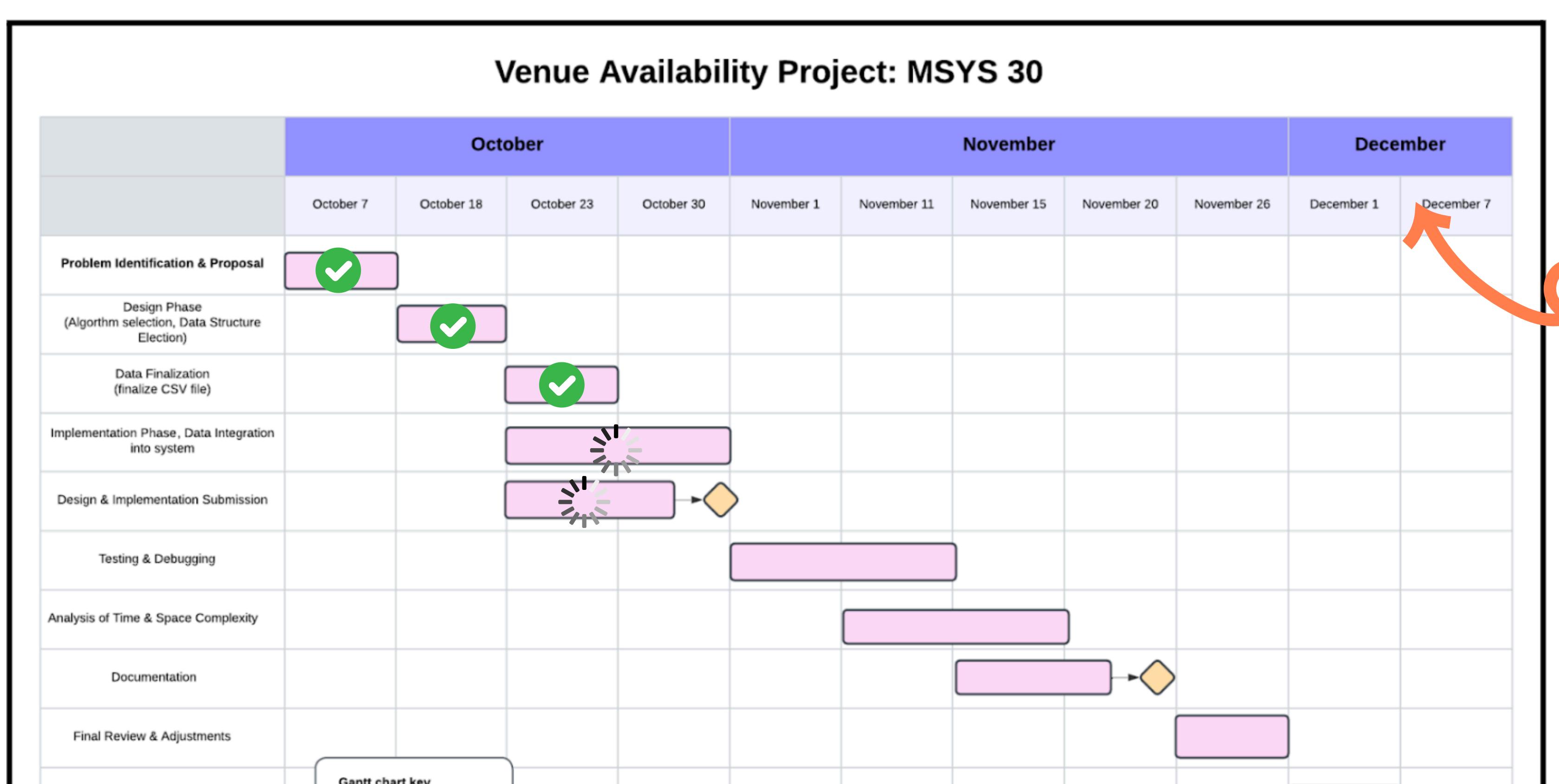
Venue ID	Date	Time	Capacity	Projector	TV	Speaker	Desktop	Mic	AC	Elevator
F AVR	10/30/2024	0800-0930	100	TRUE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE
F 113	10/30/2024	0800-0930	50	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	TRUE

Figure 05. Tool Mockup Webpage on Venue Availability System





GANT



MSYS 30 | PROGRESS REPORT

VENUE

AVAILABILITY

SYSTEM

GROUP 2

Boco, Luna, Valdez

Section C

