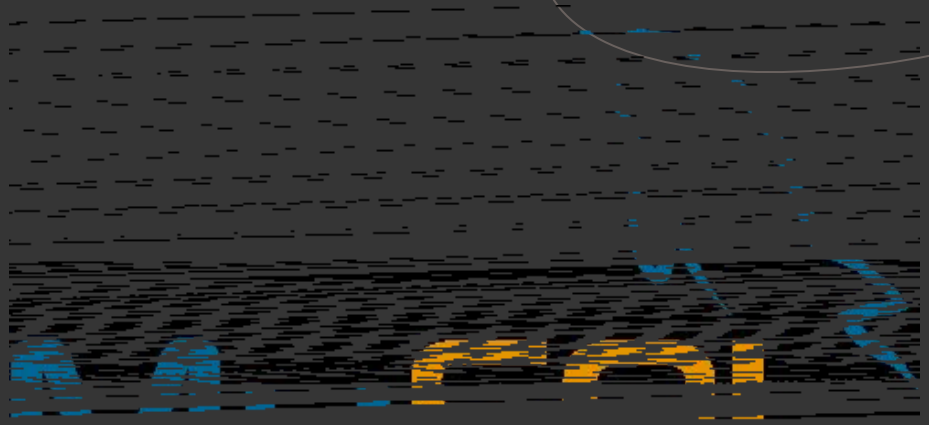
Group 3
November 26, 2025



SQL Demo

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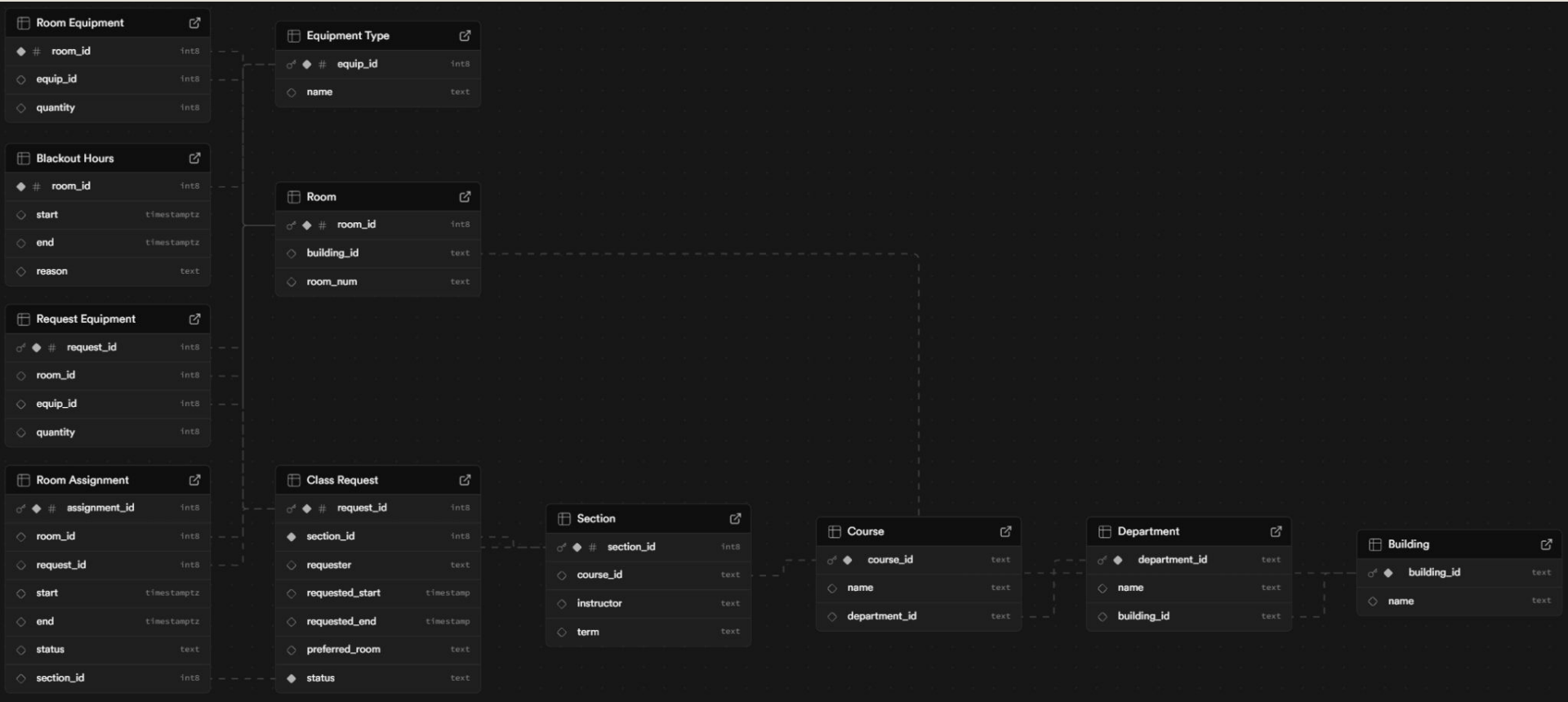
Technology used

For the frontend we used HTML, the backend is made using python and flask. We used Supabase to host the database. Supabase is a postgreSQL database

ER Diagram


Room Equipment
room_id int8
equip_id int8
quantity int8
Equipment Type
equip_id int8
name text
Blackout Hours
room_id int8
start timestamptz
end timestamptz
reason text
Room
room_id int8
building_id text
room_num text
Request Equipment
request_id int8
room_id int8
equip_id int8
quantity int8
Room Assignment
assignment_id int8
room_id int8
request_id int8
start timestamptz
end timestamptz
status text
section_id int8
Class Request
request_id int8
section_id int8
requester text
requested_start timestamp
requested_end timestamp
preferred_room text
status text
Section
section_id int8
course_id text
instructor text
term text
Course
course_id text
name text
department_id text
Department
department_id text
name text
building_id text
Building
building_id text
name text

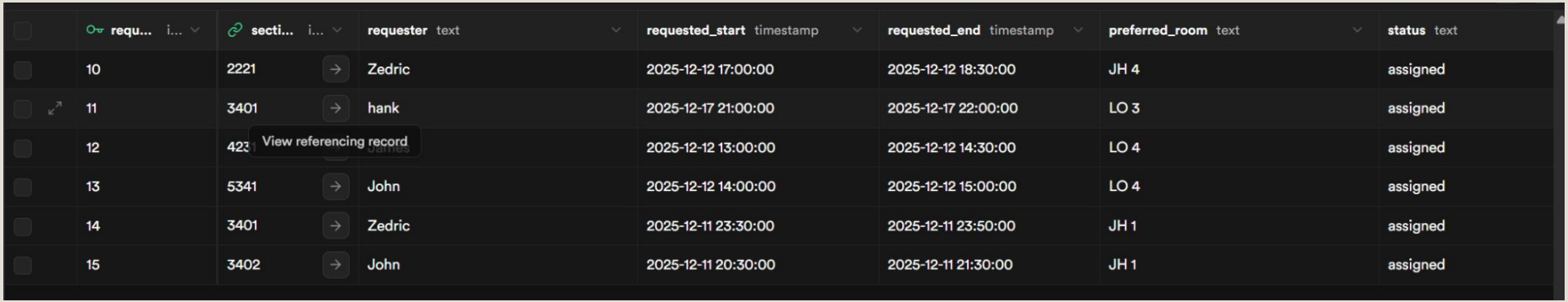
Database Tables

NAME	DESCRIPTION	ROWS (ESTIMATED)	SIZE (ESTIMATED)	REALTIME ENABLED	
Blackout Hours	No description	1	16 kB	✕	4 columns
Building	No description	5	32 kB	✕	2 columns
Class Request	No description	2	32 kB	✕	7 columns
Course	No description	16	32 kB	✕	3 columns
Department	No description	5	32 kB	✕	3 columns
Equipment Type	No description	7	32 kB	✕	2 columns
Request Equipment	No description	2	24 kB	✕	4 columns
Room	No description	25	32 kB	✕	3 columns
Room Assignment	No description	2	32 kB	✕	7 columns
Room Equipment	No description	5	8192 bytes	✕	3 columns
Section	No description	32	32 kB	✕	4 columns

Building Table

building_id text	name text
CH	Cypress Hall
EH	Eucalyptus Hall
JH	Jacaranda Hall
LO	Live Oak Hall
SH	Sierra Hall

Class Request Table



requ... i...	secti... i...	requester text	requested_start timestamp	requested_end timestamp	preferred_room text	status text
10	2221	Zedric	2025-12-12 17:00:00	2025-12-12 18:30:00	JH 4	assigned
11	3401	hank	2025-12-17 21:00:00	2025-12-17 22:00:00	LO 3	assigned
12	423		2025-12-12 13:00:00	2025-12-12 14:30:00	LO 4	assigned
13	5341	John	2025-12-12 14:00:00	2025-12-12 15:00:00	LO 4	assigned
14	3401	Zedric	2025-12-11 23:30:00	2025-12-11 23:50:00	JH 1	assigned
15	3402	John	2025-12-11 20:30:00	2025-12-11 21:30:00	JH 1	assigned

View referencing record

Course Table

course_id text	name text	department_id text
CHEM 423	FORENSIC CHEMISTRY	CHEM
CHEM 534	ADVANCED ORGANIC CHEMISTRY	CHEM
CHEM 551	CHEMICAL THERMODYNAMICS	CHEM
COMP 222	COMPUTER ORGNZTON	CS
COMP 440	DATABASE DESIGN	CS
COMP 482	ALGORITHM DESIGN	CS
COMP 522	EMBEDDED APPS	CS
ENG 436	MAJOR CRITICAL THEORIES	ENG
ENG 456	AGE OF REVOLUTIONS	ENG
ENG 513	COMPOSITION STUDIES	ENG
HIST 441	THE SECOND WORLD WAR	HIST
HIST 453	MODERN BRITAIN	HIST
HIST 466	MEXICO	HIST
MATH 340	INTRO PROB & STAT	MATH
MATH 545	PROBABILITY THEORY	MATH
MATH 548	STATISTICAL COMPUTING	MATH

Department Table

departme... t...	name text	buildin... t...
CHEM	Chemistry	SH
CS	Computer Science	JH
ENG	English	EH
HIST	History	CH
MATH	Mathematics	LO

Equipment Type Table

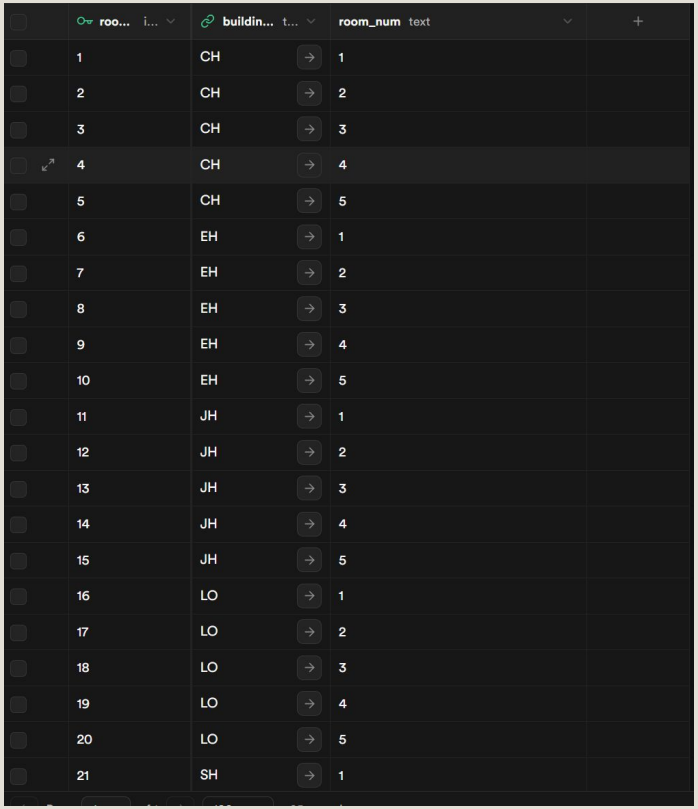
equi... i...	name text
1	Laptop
2	Beaker
3	Ruler
4	Textbook
5	Burner
6	Protractor
7	Goggles

Request Equipment Table

re... i..	roo... i...	equi... i...	quantity int8
10	15	2	10
11	17	6	10
12	19	2	5
13	19	2	10
14	11	1	5
15	11	1	5

View referencing record

Room Table



roo... i...	buildin... t...	room_num text
1	CH	1
2	CH	2
3	CH	3
4	CH	4
5	CH	5
6	EH	1
7	EH	2
8	EH	3
9	EH	4
10	EH	5
11	JH	1
12	JH	2
13	JH	3
14	JH	4
15	JH	5
16	LO	1
17	LO	2
18	LO	3
19	LO	4
20	LO	5
21	SH	1

Room Assignment Table

assignme... i...	roo... i...	requ... i...	start timestamptz	end timestamptz	status text	secti... i...
16	11	10	2025-12-12 17:00:00+00	2025-12-12 18:30:00+00	assigned	2221
17	18	11	2025-12-17 21:00:00+00	2025-12-17 22:00:00+00	assigned	3401
18	19	12	2025-12-12 13:00:00+00	2025-12-12 14:30:00+00	assigned	4231
19	16	13	2025-12-12 14:00:00+00	2025-12-12 15:00:00+00	assigned	5341
20	11	14	2025-12-11 23:30:00+00	2025-12-11 23:50:00+00	assigned	3401
21	12	15	2025-12-11 20:30:00+00	2025-12-11 21:30:00+00	assigned	3402

Room Equipment Table

roo... i...	equi... i...	quantity int8
11	2	10
11	1	5
12	1	5
13	4	5
15	2	10
15	2	10
16	2	10
18	6	10
19	2	5

Section Table

secti... i...	course_id text	instructor text	term text
2221	COMP 222	Jeffrey	Fall 2026
2222	COMP 222	Chris	Fall 2026
3401	MATH 340	Charles	Fall 2026
3402	MATH 340	Kirk	Fall 2026
4231	CHEM 423	Sycamore	Fall 2026
4232	CHEM 423	Kukui	Fall 2026
4361	ENG 436	Jen	Fall 2026
4362	ENG 436	Nick	Fall 2026
4401	COMP 440	Senhua	Fall 2026
4402	COMP 440	John	Fall 2026
4411	HIST 441	John Pork	Fall 2026
4412	HIST 441	Freakbob	Fall 2026
4531	HIST 453	Quandale	Fall 2026
4532	HIST 453	Dingle	Fall 2026
4561	ENG 456	Pima	Fall 2026
4562	ENG 456	Poitus	Fall 2026
4661	HIST 466	Bingus	Fall 2026
4662	HIST 466	Chungus	Fall 2026
4821	COMP 482	Sally	Fall 2026
4822	COMP 482	Jane	Fall 2026
5131	ENG 513	Goerp	Fall 2026

SQL Code

```
CREATE TABLE public.Blackout Hours (
  room_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  start timestamp with time zone,
  end timestamp with time zone,
  reason text,
  CONSTRAINT Blackout Hours_room_id_fkey FOREIGN KEY (room_id) REFERENCES public.Room(room_id)
);
CREATE TABLE public.Building (
  building_id text NOT NULL,
  name text,
  CONSTRAINT Building_pkey PRIMARY KEY (building_id)
);
CREATE TABLE public.Class Request (
  request_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  section_id bigint NOT NULL,
  requester text,
  requested_start timestamp without time zone,
  requested_end timestamp without time zone,
  preferred_room text,
  status text NOT NULL DEFAULT 'unassigned'::text,
  CONSTRAINT Class Request_pkey PRIMARY KEY (request_id),
  CONSTRAINT Class Request_section_id_fkey FOREIGN KEY (section_id) REFERENCES public.Section(section_id)
);
```

SQL Code

```
CREATE TABLE public.Course (
  course_id text NOT NULL,
  name text,
  department_id text,
  CONSTRAINT Course_pkey PRIMARY KEY (course_id),
  CONSTRAINT Course_department_id_fkey FOREIGN KEY (department_id) REFERENCES public.Department(department_id)
);
CREATE TABLE public.Department (
  department_id text NOT NULL,
  name text,
  building_id text,
  CONSTRAINT Department_pkey PRIMARY KEY (department_id),
  CONSTRAINT Department_building_id_fkey FOREIGN KEY (building_id) REFERENCES public.Building(building_id)
);
CREATE TABLE public.Equipment Type (
  equip_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  name text,
  CONSTRAINT Equipment Type_pkey PRIMARY KEY (equip_id)
);
CREATE TABLE public.Request Equipment (
  request_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  room_id bigint,
  equip_id bigint,
  quantity bigint DEFAULT '1'::bigint,
  CONSTRAINT Request Equipment_pkey PRIMARY KEY (request_id),
  CONSTRAINT Request Equipment_room_id_fkey FOREIGN KEY (room_id) REFERENCES public.Room(room_id),
  CONSTRAINT Request Equipment_equip_id_fkey FOREIGN KEY (equip_id) REFERENCES public.Equipment Type(equip_id),
  CONSTRAINT Request Equipment_request_id_fkey FOREIGN KEY (request_id) REFERENCES public.Class Request(request_id)
);
```

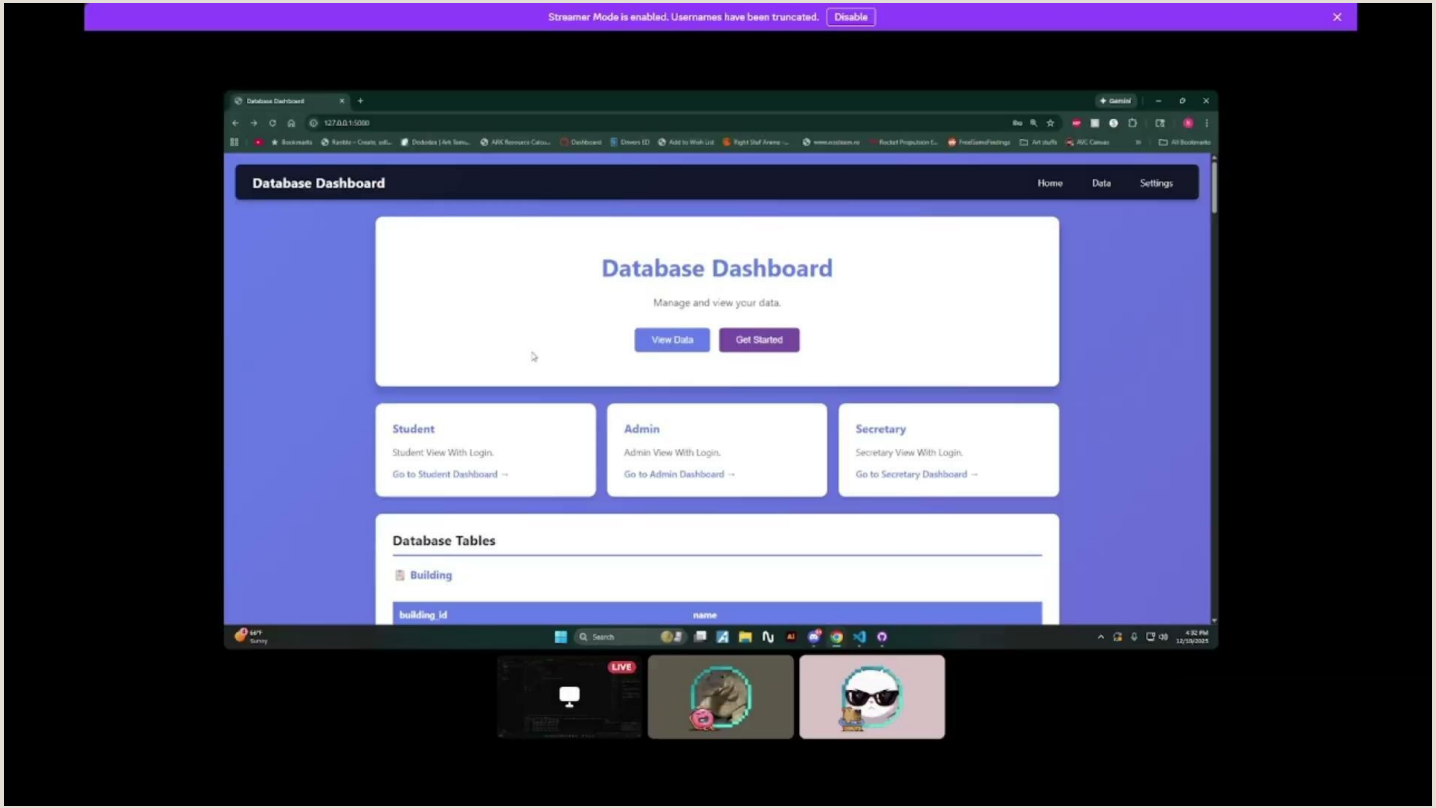
SQL Code

```
CREATE TABLE public.Room (
  room_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  building_id text,
  room_num text,
  CONSTRAINT Room_pkey PRIMARY KEY (room_id),
  CONSTRAINT Room_building_id_fkey FOREIGN KEY (building_id) REFERENCES public.Building(building_id)
);
CREATE TABLE public.Room Assignment (
  assignment_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  room_id bigint,
  request_id bigint,
  start timestamp with time zone,
  end timestamp with time zone,
  status text,
  section_id bigint,
  CONSTRAINT Room Assignment_pkey PRIMARY KEY (assignment_id),
  CONSTRAINT Room Assignment_room_id_fkey FOREIGN KEY (room_id) REFERENCES public.Room(room_id),
  CONSTRAINT Room Assignment_section_id_fkey FOREIGN KEY (section_id) REFERENCES public.Section(section_id),
  CONSTRAINT Room Assignment_request_id_fkey FOREIGN KEY (request_id) REFERENCES public.Class Request(request_id)
);
CREATE TABLE public.Room Equipment (
  room_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  equip_id bigint,
  quantity bigint DEFAULT '1'::bigint,
  CONSTRAINT Room Equipment_equip_id_fkey FOREIGN KEY (equip_id) REFERENCES public.Equipment Type(equip_id),
  CONSTRAINT Room Equipment_room_id_fkey FOREIGN KEY (room_id) REFERENCES public.Room(room_id)
);
```

SQL Code

```sql
CREATE TABLE public.Section (
  section_id bigint GENERATED ALWAYS AS IDENTITY NOT NULL,
  course_id text,
  instructor text,
  term text,
  CONSTRAINT Section_pkey PRIMARY KEY (section_id),
  CONSTRAINT Section_course_id_fkey FOREIGN KEY (course_id) REFERENCES public.Course(course_id)
);
```

SQL Demo


Streamer Mode is enabled. Usernames have been truncated.
Disable
Database Dashboard
Home
Data
Settings
Database Dashboard
Manage and view your data.
View Data
Get Started
Student
Student View With Login.
Go to Student Dashboard →
Admin
Admin View With Login.
Go to Admin Dashboard →
Secretary
Secretary View With Login.
Go to Secretary Dashboard →
Database Tables
Building
building_id
name