



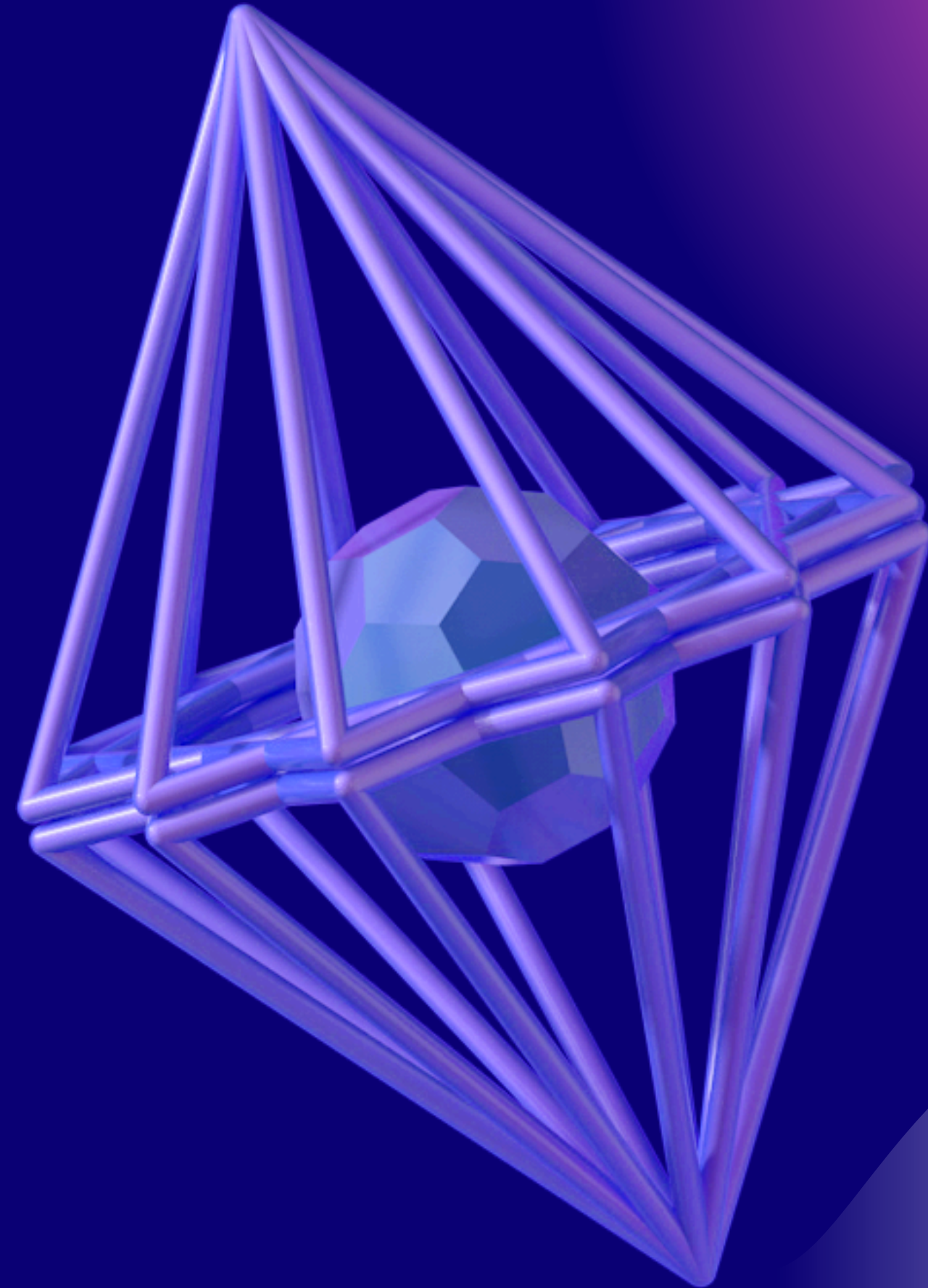
DATABASE SYSTEM

This is a database system for a university donor tracking system.

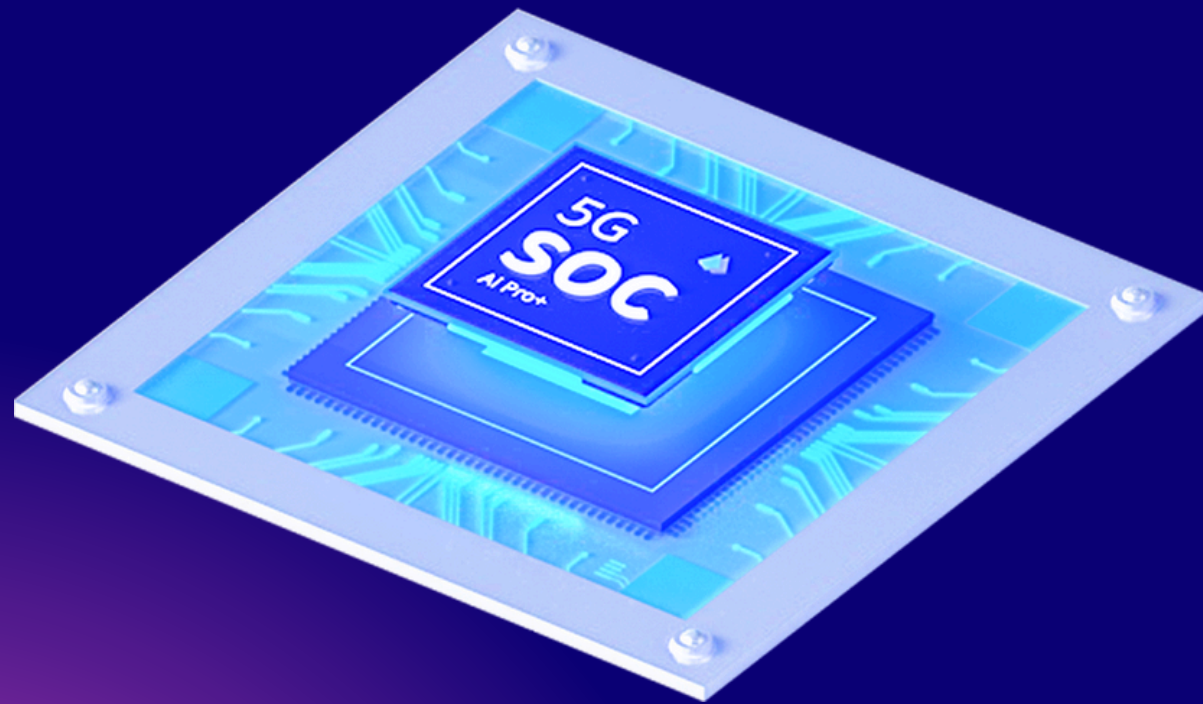


OVERVIEW

This presentation showcases a semester-long database system developed for university donor management. The system models donor information, pledges, donations, events, donor circles, and organizational relationships. It follows the full database lifecycle from initial requirements to secure implementation.



INTRODUCTION & REQUIRMENT

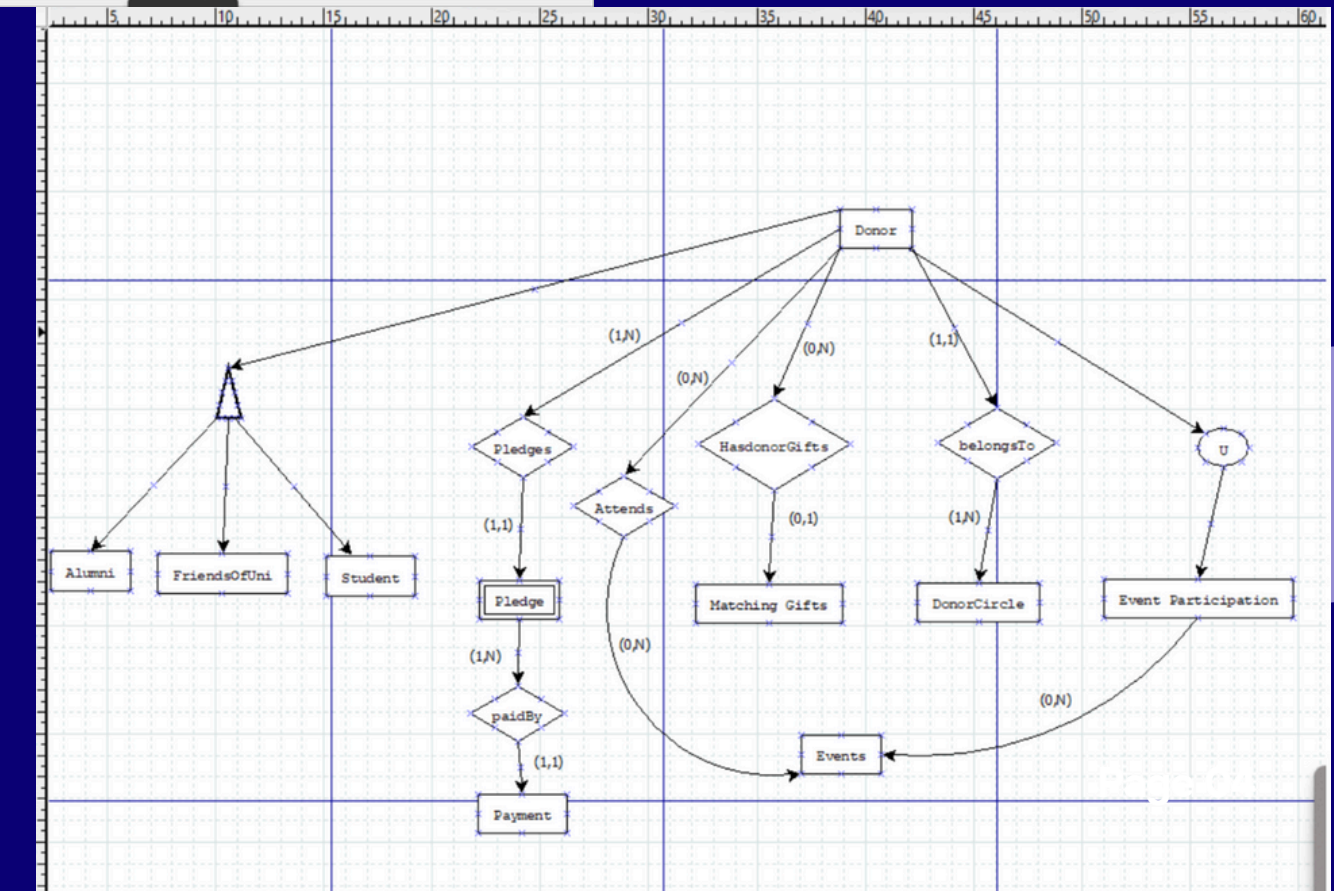
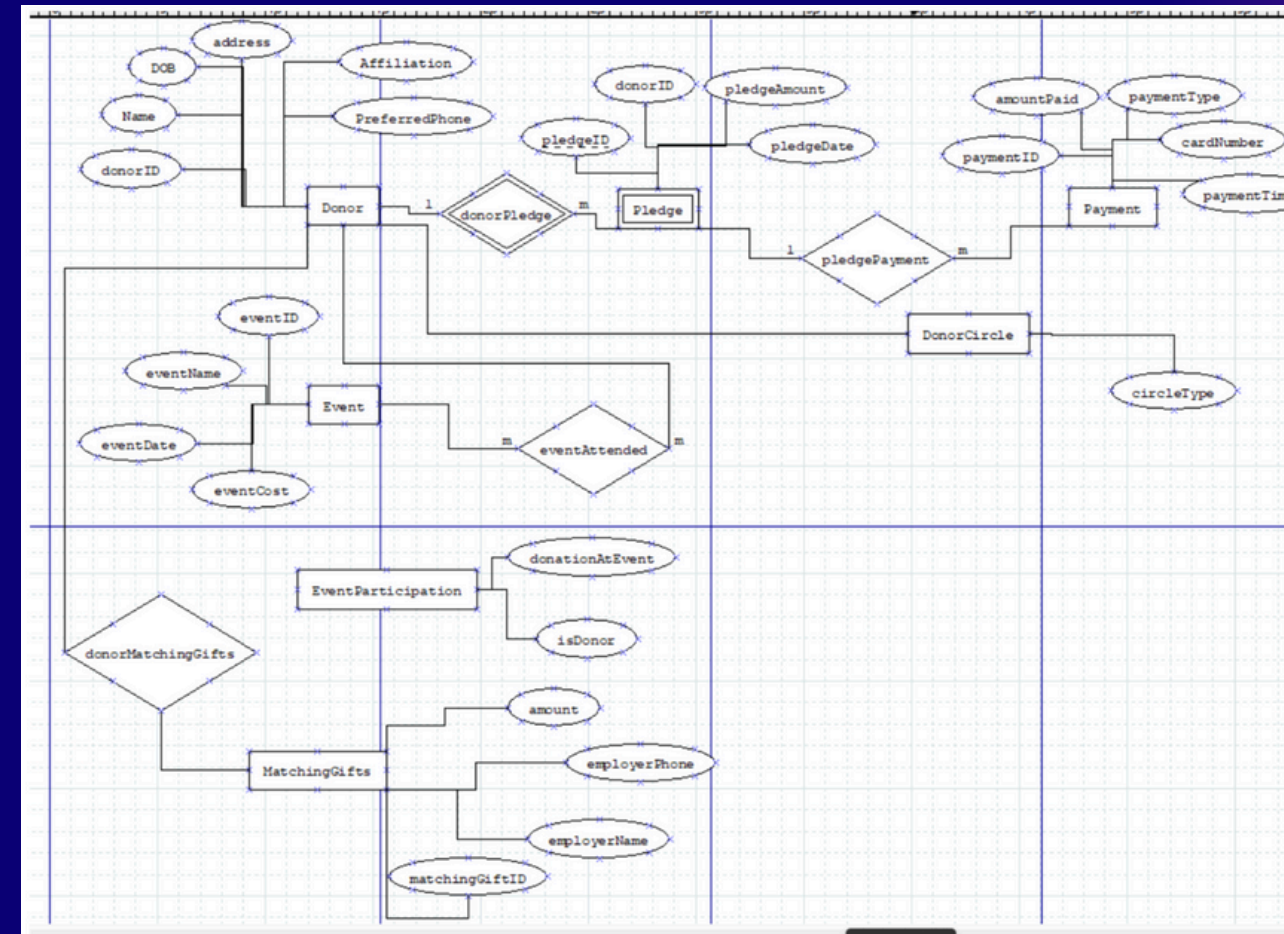


Requirements & Planning

- Studied "Beta University" environment
- Identified user needs for donor tracking, event management, and pledge/payments
- Created initial reports, forms, and transaction lists
- Built a full data dictionary

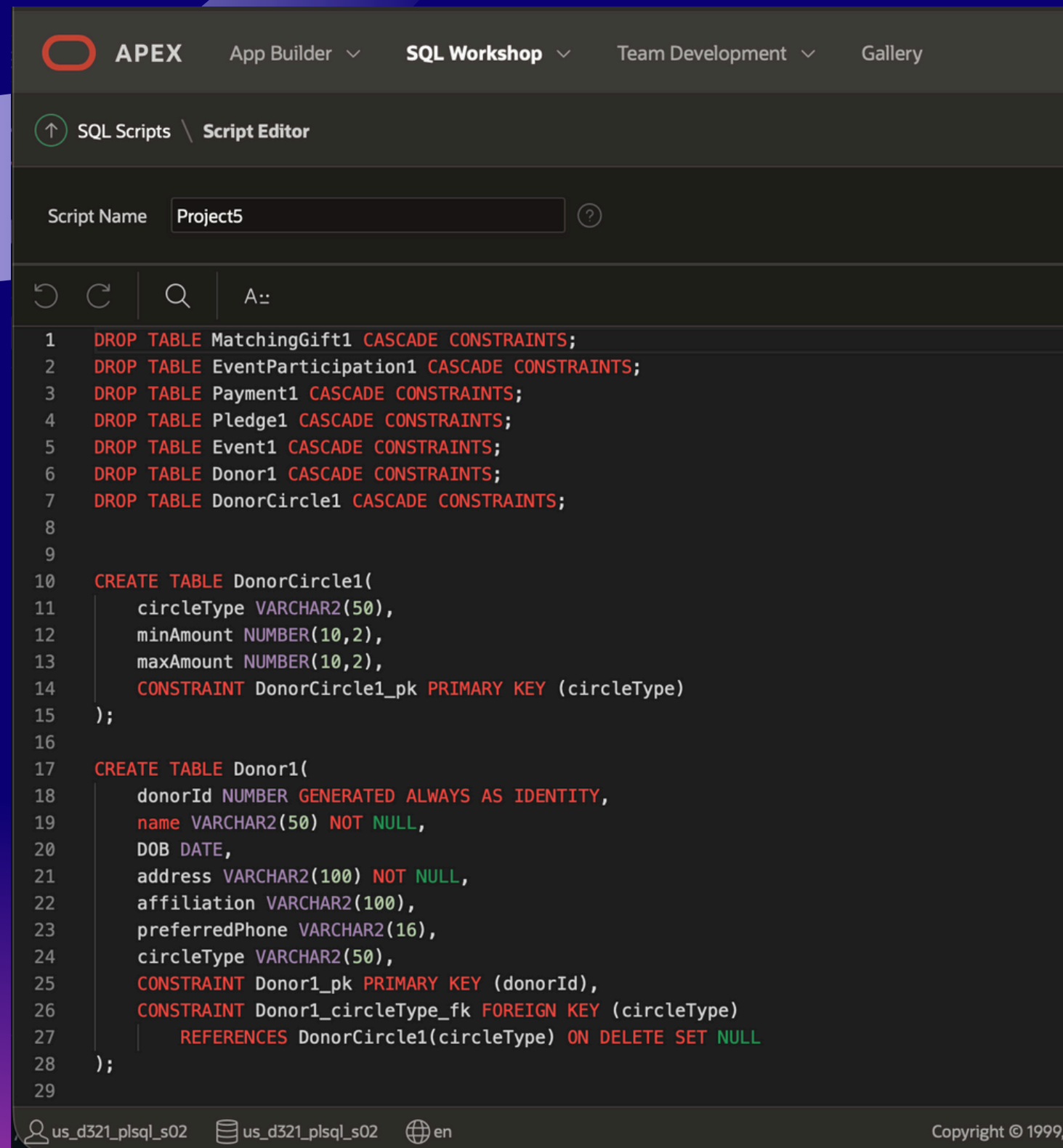
ER AND EER MODELING

- Conceptual model created using ER diagrams
- Extended model using EER (specialization, categories)
- Final model represented all donor-related processes



SQL IMPLEMENTATION

- Created tables in Oracle SQL
- Inserted sample donor, pledge, payment, and event data
- Tested database operations with SQL queries



The screenshot shows the Oracle APEX SQL Workshop interface. The top navigation bar includes the APEX logo and links to App Builder, SQL Workshop, Team Development, and Gallery. The breadcrumb trail indicates the current location is SQL Scripts > Script Editor. The Script Name field is set to 'Project5'. The main editor area displays SQL code for dropping and creating tables. The code is as follows:

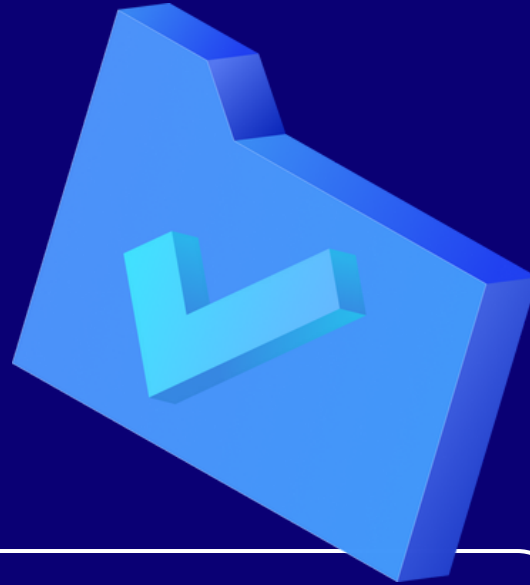
```
1 DROP TABLE MatchingGift1 CASCADE CONSTRAINTS;
2 DROP TABLE EventParticipation1 CASCADE CONSTRAINTS;
3 DROP TABLE Payment1 CASCADE CONSTRAINTS;
4 DROP TABLE Pledge1 CASCADE CONSTRAINTS;
5 DROP TABLE Event1 CASCADE CONSTRAINTS;
6 DROP TABLE Donor1 CASCADE CONSTRAINTS;
7 DROP TABLE DonorCircle1 CASCADE CONSTRAINTS;
8
9
10 CREATE TABLE DonorCircle1(
11     circleType VARCHAR2(50),
12     minAmount NUMBER(10,2),
13     maxAmount NUMBER(10,2),
14     CONSTRAINT DonorCircle1_pk PRIMARY KEY (circleType)
15 );
16
17 CREATE TABLE Donor1(
18     donorId NUMBER GENERATED ALWAYS AS IDENTITY,
19     name VARCHAR2(50) NOT NULL,
20     DOB DATE,
21     address VARCHAR2(100) NOT NULL,
22     affiliation VARCHAR2(100),
23     preferredPhone VARCHAR2(16),
24     circleType VARCHAR2(50),
25     CONSTRAINT Donor1_pk PRIMARY KEY (donorId),
26     CONSTRAINT Donor1_circleType_fk FOREIGN KEY (circleType)
27         REFERENCES DonorCircle1(circleType) ON DELETE SET NULL
28 );
29
```

The bottom status bar shows the user 'us_d321_plsql_s02', the database 'us_d321_plsql_s02', and the language 'en'. A copyright notice 'Copyright © 1999,' is also visible.



SECURITY FEATURES

- Created roles and privileges
- Restricted access to sensitive donor information
- Added user-level access controls in Oracle





THANK YOU