-- Creating the Students Table

CREATE TABLE Students (

student\_id INT PRIMARY KEY AUTO\_INCREMENT,

first\_name VARCHAR(100) NOT NULL,

last\_name VARCHAR(100) NOT NULL,

email VARCHAR(100) UNIQUE NOT NULL,

phone\_number VARCHAR(15),

department VARCHAR(100),

enrollment\_year INT,

hall\_id INT,

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (hall\_id) REFERENCES Halls(hall\_id)

);

-- Creating the Halls Table

CREATE TABLE Halls (

hall\_id INT PRIMARY KEY AUTO\_INCREMENT,

hall\_name VARCHAR(100) NOT NULL,

hall\_address VARCHAR(255) NOT NULL,

hall\_capacity INT NOT NULL, -- Number of rooms or students the hall can accommodate

available\_rooms INT NOT NULL, -- Number of available rooms

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP

);

-- Creating the Room Allocation Table

CREATE TABLE RoomAllocations (

allocation\_id INT PRIMARY KEY AUTO\_INCREMENT,

student\_id INT NOT NULL,

hall\_id INT NOT NULL,

room\_number VARCHAR(10) NOT NULL,

allocation\_date TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

duration INT, -- Duration in months, for how long the student stays

FOREIGN KEY (student\_id) REFERENCES Students(student\_id),

FOREIGN KEY (hall\_id) REFERENCES Halls(hall\_id)

);

-- Creating the Bookings Table (for hall events)

CREATE TABLE Bookings (

booking\_id INT PRIMARY KEY AUTO\_INCREMENT,

student\_id INT NOT NULL,

event\_name VARCHAR(100) NOT NULL,

event\_date DATE NOT NULL,

event\_time TIME NOT NULL,

booking\_status ENUM('pending', 'confirmed', 'cancelled') DEFAULT 'pending',

booking\_date TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (student\_id) REFERENCES Students(student\_id)

);

-- Creating the Payments Table

CREATE TABLE Payments (

payment\_id INT PRIMARY KEY AUTO\_INCREMENT,

booking\_id INT NOT NULL,

payment\_amount DECIMAL(10, 2) NOT NULL,

payment\_date TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

payment\_method ENUM('credit\_card', 'debit\_card', 'cash', 'online') NOT NULL,

payment\_status ENUM('pending', 'completed', 'failed') DEFAULT 'pending',

FOREIGN KEY (booking\_id) REFERENCES Bookings(booking\_id)

);

-- Creating the Events Table (for managing hall events)

CREATE TABLE Events (

event\_id INT PRIMARY KEY AUTO\_INCREMENT,

event\_name VARCHAR(100) NOT NULL,

event\_description TEXT,

event\_date DATE NOT NULL,

event\_time TIME NOT NULL,

event\_duration INT NOT NULL, -- Duration in hours

hall\_id INT NOT NULL, -- Which hall is hosting the event

FOREIGN KEY (hall\_id) REFERENCES Halls(hall\_id),

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP

);