LOGICAL DATABASE SCHEMA ASSIGNMENT

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USE CASE 1

COURSE

ALLOCATATION

SYSTEM

PRODUCT FUNCTIONS:

Following are the core functions that the Course Allocation System will perform. The functions are summarized to give a high-level understanding of the system's capabilities without getting into details of each function.

The major functions of the Course Allocation System include:

- **Student Record Management:** This function involves maintaining a comprehensive list of admitted students, including their personal details, program information, and registration history.
- **Teacher Record Management:** The system allows for the management of teacher records, encompassing information such as names, contact details, and courses assigned.
- **Course Registration:** Students can register for courses offered in each semester after the system has verified fee status and prerequisites.
- **Course Availability Verification:** The system enables users to check the availability of courses for a particular semester.
- **Fee Payment Tracking:** It tracks the fee payment status of each student on a semester-by-semester basis.
- **Prerequisite Verification:** Before registering for a course, the system verifies if the student has successfully completed any required prerequisites.

These functions collectively form the core operational capabilities of the Course Allocation System. They are organized to facilitate a clear understanding for both the customer and any other stakeholders reviewing the document.

LOGICAL DATABASE SCHEMA:

PROGRAM

prg_id	int (5)	{PK}
prg_name	string(15)	
prg_duration	string(15)	

OFFERED COURSES

session_id	int (5)	{FK,PK}
course_id	int(5)	{FK}
t_id	int (5)	{FK}

SESSION

session_id	int (4)	{PK}
session_name	string(15)	

FEE DATA

fee_id	string (25)	{PK}
fee_amount	int (6)	
fee_duedate	date	
fee_subm_date	date	
st_id	int(11)	{FK}
session_id	int (4)	{FK}

STUDENT

st_id	int (11)	{PK}
st_fname	string(15)	
st_fname	string(15)	
st_lname	string(15)	
st_dob	date	
st_ad_date	date	
st_password	password(10)	
program_id	int (5)	{FK}

COURSE

course_id	int (5)	{PK}
course_name	string(40)	
course_credith	int(1)	
course_code	string(6)	

TEACHER RECORD

t_id	int (6)	{PK}
t_fname	string(15)	
t_lname	string(15)	
t_qualification	string(15)	
t_joiningdate	date	

ADMINISTRATOR

adm_id	int (5)	{PK}
adm_name	string(15)	
adm_password	password(10)	

PRE_REQUISTE COURSE

pre_id	int (2)	{PK}
course_id	int (5)	{FK}

REGISTER COURSE

reg_id	int (5)	{PK}
course_id	int (5)	{FK}
st_id	int(11)	{FK}
session_id	int(4)	{FK}

COURSE MANAGMENT SYSTEM (EXTERNAL)

session_id	int (4)	{FK,PK}

COURSE EVALUATION SYSTEM (EXTERNAL)

course_id	int (5)	{FK,PK}
course_status	bool	
st_id	int (11)	{FK,PK}