

TASK MANAGER – DATABASE SCHEMA

ROLES		
Column	Data Type	Constraints
Id	int	PRIMARY KEY, AUTO_INCREMENT
Name	varchar(50) or enum	NOT NULL, UNIQUE

USERS		
Column	Data Type	Constraints
Id	INT	PRIMARY KEY, AUTO_INCREMENT
FullName	VARCHAR(100)	NOT NULL
Username	VARCHAR(50)	NOT NULL, UNIQUE
Email	VARCHAR(100)	NOT NULL, UNIQUE
Password	CHAR(60)	NOT NULL (hashed)
RoleId	INT	NOT NULL, FOREIGN KEY REFERENCES Roles(id)
DateCreated	DATETIME	DEFAULT CURRENT_TIMESTAMP
DateModified	DATETIME	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP

TASKS		
Column	Data Type	Constraints
Id	INT	PRIMARY KEY, AUTO_INCREMENT
Title	VARCHAR(255)	NOT NULL
Description	TEXT	NULLABLE
CreatedBy	INT	NOT NULL, FOREIGN KEY REFERENCES Users(id)
AssignedTo	INT	NOT NULL, FOREIGN KEY REFERENCES Users(id)
Priority	ENUM	('low', 'medium', 'high', 'maximum'), DEFAULT 'medium'
Status	ENUM	('pending', 'in_progress', 'completed', 'cancelled'), DEFAULT 'pending'
DateCreated	DATETIME	DEFAULT CURRENT_TIMESTAMP
DateModified	DATETIME	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP
Deadline	DATETIME	NOT NULL (required for all tasks)
DeletedAt	DATETIME	NULLABLE

COMMENTS		
Column	Data Type	Constraints
Id	INT	PRIMARY KEY, AUTO_INCREMENT
TaskId	INT	NOT NULL, FOREIGN KEY REFERENCES Tasks(id)
UserId	INT	NOT NULL, FOREIGN KEY REFERENCES Users(id)
Content	TEXT	NOT NULL
DateCreated	DATETIME	DEFAULT CURRENT_TIMESTAMP
DeletedAt	DATETIME	NULLABLE

TaskHistory		
Column	Data Type	Constraints
Id	INT	PRIMARY KEY, AUTO_INCREMENT
TaskId	INT	NOT NULL, FOREIGN KEY REFERENCES Tasks(id)
ChangedBy	INT	NOT NULL, FOREIGN KEY REFERENCES Users(id)
FieldChanged	VARCHAR(50)	NOT NULL
OldValue	TEXT	NULLABLE
NewValue	TEXT	NULLABLE
ChangeDate	DATETIME	DEFAULT CURRENT_TIMESTAMP

Attachments		
Column	Data Type	Constraints
Id	INT	PRIMARY KEY, AUTO_INCREMENT
TaskId	INT	NOT NULL, FOREIGN KEY REFERENCES Tasks(Id)
UploadedBy	INT	NOT NULL, FOREIGN KEY REFERENCES Users(Id)
FileName	VARCHAR(255)	NOT NULL
FilePath	VARCHAR(255)	NOT NULL (path or URL)
DateUploaded	DATETIME	DEFAULT CURRENT_TIMESTAMP
DeletedAt	DATETIME	NULLABLE