HEGDE FUND MANAGEMENT SYSTEM

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```sql
-- User Table

CREATE TABLE User (
    UserID INT PRIMARY KEY NOT NULL UNIQUE, -- Primary key
    Username VARCHAR(50) NOT NULL,
    Email VARCHAR(100) NOT NULL UNIQUE,
    Password VARCHAR(255) NOT NULL,
    Role VARCHAR(20) NOT NULL CHECK (Role IN ('Admin', 'User', 'Manager')) --
Role constraint
);

-- Position Table
CREATE TABLE Position (
    UserID INT PRIMARY KEY NOT NULL UNIQUE,
    Role VARCHAR(20) NOT NULL,
    Access VARCHAR(50) NOT NULL
);

-- Portfolio Table
CREATE TABLE Portfolio (
    PortfolioID INT PRIMARY KEY  Not NULL UNIQUE, -- Primary key
    PortfolioName VARCHAR(100) NOT NULL,
    CreationDate TIMESTAMP NOT NULL,
    UserID INT NOT NULL , -- Foreign key
    FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE SET NULL ON UPDATE
CASCADE
);

-- Asset Table
CREATE TABLE Asset (
    AssetID INT PRIMARY KEY UNIQUE NOT NULL, -- Primary key
    AssetName VARCHAR(100) NOT NULL,
    CurrentValue DECIMAL(15, 2) NOT NULL,
    Unit VARCHAR(20) NOT NULL
);

-- Transaction Table
CREATE TABLE Transaction (
    TransactionID INT PRIMARY KEY NOT NULL UNIQUE, -- Primary key
    Amount DECIMAL(15, 2) NOT NULL,
    PortfolioID INT NOT NULL,
```

```sql
    AssetID INT NOT NULL,
    TransactionType VARCHAR(20) NOT NULL CHECK (TransactionType IN ('Buy',
'Sell')),
    Time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (PortfolioID) REFERENCES Portfolio(PortfolioID) ON DELETE
CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (AssetID) REFERENCES Asset(AssetID) ON DELETE RESTRICT ON
UPDATE CASCADE
);

-- PerformanceReport Table
CREATE TABLE PerformanceReport (
    ReportID INT PRIMARY KEY UNIQUE NOT NULL, -- Primary key
    UserID INT FOREIGN KEY NOT NULL,-- Foreign key
    ReportDate TIMESTAMP NOT NULL,
    PortfolioID INT, -- Foreign key
    PerformanceMetrics TEXT NOT NULL,
    FOREIGN KEY (PortfolioID) REFERENCES Portfolio(PortfolioID) ON DELETE
CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE CASCADE ON UPDATE
CASCADE
);

-- SupportTicket Table
CREATE TABLE SupportTicket (
    TicketID INT PRIMARY KEY  Not null UNIQUE, -- Primary key
    Status VARCHAR(20) NOT NULL CHECK (Status IN ('Open', 'Closed',
'Pending')),
    UserID INT Not null, -- Foreign key
    CreationTime TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    Issue TEXT NOT NULL,
    FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE CASCADE ON UPDATE
CASCADE
);

-- AdminLog Table
CREATE TABLE AdminLog (
    UserID INT PRIMARY KEY , -- Primary key
    ActionType VARCHAR(50) NOT NULL,
    ActionDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    Access BOOLEAN NOT NULL
);

CREATE TABLE PerformanceMetrics (
    ReportID INT  Primary key NOT null UNIQUE,
    UserID INT Foreign key Not null UNIQUE,
    Invested DECIMAL(15,4) NOT NULL,
    CurrentValue DECIMAL(15,4) NOT NULL,
```

```sql
    P&L DECIMAL(15,2) NOT NULL,
    FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE CASCADE ON UPDATE
CASCADE ,
);
```