# Wprowadzenie

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## Założenia

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## Implementacja

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# Schemat bazy

# Tabele

## Conferences

**CREATE TABLE Conferences (**

**ConferenceID INT NOT NULL IDENTITY,**

**Name VARCHAR(100) NOT NULL,**

**Place VARCHAR(100) NOT NULL,**

**DiscountForStudents FLOAT NOT NULL DEFAULT 0,**

**Description VARCHAR(200) NOT NULL,**

**CONSTRAINT ProperDiscountForStudents CHECK (**

**DiscountForStudents >= 0**

**AND DiscountForStudents <= 100**

**),**

**CONSTRAINT ProperDescription CHECK (LEN(Description) > 5),**

**CONSTRAINT Conferences\_pk PRIMARY KEY (ConferenceID)**

**);**

## ConferenceDays

**CREATE TABLE ConferenceDays (**

**ConferenceDayID INT NOT NULL IDENTITY,**

**Conferences\_ConferenceID INT NOT NULL,**

**DATE DATE NOT NULL,**

**NumberOfParticipants INT NOT NULL,**

**CONSTRAINT PositiveNumberOfConferenceParticipants CHECK (NumberOfParticipants > 0),**

**CONSTRAINT ConferenceDays\_pk PRIMARY KEY (ConferenceDayID)**

**);**

**-- Reference: Conferences\_ConferenceDays (table: ConferenceDays)**

**ALTER TABLE ConferenceDays ADD CONSTRAINT Conferences\_ConferenceDays FOREIGN KEY (Conferences\_ConferenceID) REFERENCES Conferences (ConferenceID)**

## ConferenceCosts

**CREATE TABLE ConferenceCosts (**

**ConferenceCostID INT NOT NULL IDENTITY,**

**Conferences\_ConferenceID INT NOT NULL,**

**Cost DECIMAL(9, 2) NOT NULL,**

**DateFrom DATE NOT NULL,**

**DateTo DATE NOT NULL,**

**CONSTRAINT ProperDayDifferance CHECK (DateFrom <= DateTo),**

**CONSTRAINT NonnegativeCostConf CHECK (Cost >= 0),**

**CONSTRAINT ConferenceCosts\_pk PRIMARY KEY (ConferenceCostID)**

**);**

**-- Reference: Conferences\_ConferenceDay (table: ConferenceCosts)**

**ALTER TABLE ConferenceCosts ADD CONSTRAINT Conferences\_ConferenceDay FOREIGN KEY (Conferences\_ConferenceID) REFERENCES Conferences (ConferenceID)**

## Workshops

**CREATE TABLE Workshops (**

**WorkshopID INT NOT NULL IDENTITY,**

**ConferenceDays\_ConferenceDayID INT NOT NULL,**

**Name VARCHAR(100) NOT NULL,**

**StartTime DATE NOT NULL,**

**EndTime DATE NOT NULL,**

**Cost DECIMAL(9, 2) NOT NULL DEFAULT 0,**

**NumberOfParticipants INT NOT NULL DEFAULT 10,**

**CONSTRAINT NonnegativeCostWorkshop CHECK (Cost >= 0),**

**CONSTRAINT ProperTimeDifferance CHECK (StartTime <= EndTime),**

**CONSTRAINT PosiviteWorkshopParticipants CHECK (NumberOfParticipants > 0),**

**CONSTRAINT Workshops\_pk PRIMARY KEY (WorkshopID)**

**);**

**-- Reference: Workshops\_ConferenceDays (table: Workshops)**

**ALTER TABLE Workshops ADD CONSTRAINT Workshops\_ConferenceDays FOREIGN KEY (ConferenceDays\_ConferenceDayID) REFERENCES ConferenceDays (ConferenceDayID)**

## ConferenceBooking

**CREATE TABLE ConferenceBooking (**

**ConferenceBookingID INT NOT NULL IDENTITY,**

**Clients\_ClientID INT NOT NULL,**

**Conferences\_ConferenceID INT NOT NULL,**

**BookingDate DATE NOT NULL DEFAULT getdate(),**

**IsCanceled BIT NOT NULL DEFAULT 0,**

**CONSTRAINT ConferenceBooking\_pk PRIMARY KEY (ConferenceBookingID)**

**);**

**-- Reference: BookingConference\_Clients (table: ConferenceBooking)**

**ALTER TABLE ConferenceBooking ADD CONSTRAINT BookingConference\_Clients FOREIGN KEY (Clients\_ClientID) REFERENCES Clients (ClientID)**

**-- Reference: BookingConference\_Conferences (table: ConferenceBooking)**

**ALTER TABLE ConferenceBooking ADD CONSTRAINT BookingConference\_Conferences FOREIGN KEY (Conferences\_ConferenceID) REFERENCES Conferences (ConferenceID)**

## ConferenceDayBooking

**CREATE TABLE ConferenceDayBooking (**

**ConferenceDayBookingID INT NOT NULL IDENTITY,**

**ConferenceBooking\_ConferenceBookingID INT NOT NULL,**

**ConferenceDays\_ConferenceDayID INT NOT NULL,**

**BookingDate DATE NOT NULL DEFAULT getdate(),**

**IsCancelled BIT NOT NULL DEFAULT 0,**

**NumberOfParticipants INT NOT NULL,**

**NumberOfStudents INT NOT NULL DEFAULT 0,**

**CONSTRAINT PositiveNumberOfParticipants CHECK (NumberOfParticipants > 0),**

**CONSTRAINT NonnegativeNumberOfStudents CHECK (NumberOfStudents >= 0),**

**CONSTRAINT ProperNumberOfStudents CHECK (NumberOfParticipants >= NumberOfStudents),**

**CONSTRAINT ConferenceDayBooking\_pk PRIMARY KEY (ConferenceDayBookingID)**

**);**

**-- Reference: ConferenceDayBooking\_ConferenceBooking (table: ConferenceDayBooking)**

**ALTER TABLE ConferenceDayBooking ADD CONSTRAINT ConferenceDayBooking\_ConferenceBooking FOREIGN KEY (ConferenceBooking\_ConferenceBookingID) REFERENCES ConferenceBooking (ConferenceBookingID)**

**-- Reference: ConferenceDayBooking\_ConferenceDays (table: ConferenceDayBooking)**

**ALTER TABLE ConferenceDayBooking ADD CONSTRAINT ConferenceDayBooking\_ConferenceDays FOREIGN KEY (ConferenceDays\_ConferenceDayID) REFERENCES ConferenceDays (ConferenceDayID)**

## WorkshopBooking

**CREATE TABLE WorkshopBooking (**

**WorkshopBookingID INT NOT NULL IDENTITY,**

**Workshops\_WorkshopID INT NOT NULL,**

**ConferenceDayBooking\_ConferenceDayBookingID INT NOT NULL,**

**BookingDate DATE NOT NULL DEFAULT getdate(),**

**NumberOfParticipants INT NOT NULL,**

**CONSTRAINT PositiveWorkshopNumberOfParticipants CHECK (NumberOfParticipants > 0),**

**CONSTRAINT WorkshopBooking\_pk PRIMARY KEY (WorkshopBookingID)**

**);**

**-- Reference: WorkshopBooking\_ConferenceDayBooking (table: WorkshopBooking)**

**ALTER TABLE WorkshopBooking ADD CONSTRAINT WorkshopBooking\_ConferenceDayBooking FOREIGN KEY (ConferenceDayBooking\_ConferenceDayBookingID) REFERENCES ConferenceDayBooking (ConferenceDayBookingID)**

**-- Reference: WorkshopBooking\_Workshops (table: WorkshopBooking)**

**ALTER TABLE WorkshopBooking ADD CONSTRAINT WorkshopBooking\_Workshops FOREIGN KEY (Workshops\_WorkshopID) REFERENCES Workshops (WorkshopID)**

## Payments

**CREATE TABLE Payments (**

**PaymentID INT NOT NULL IDENTITY,**

**ConferenceBooking\_ConferenceBookingID INT NOT NULL,**

**Amount DECIMAL(9, 2) NOT NULL,**

**PayDate DATE NOT NULL DEFAULT getdate(),**

**CONSTRAINT PositiveValue CHECK (Amount > 0),**

**CONSTRAINT Payments\_pk PRIMARY KEY (PaymentID)**

**);**

**-- Reference: Payments\_ConferenceBooking (table: Payments)**

**ALTER TABLE Payments ADD CONSTRAINT Payments\_ConferenceBooking FOREIGN KEY (ConferenceBooking\_ConferenceBookingID) REFERENCES ConferenceBooking (ConferenceBookingID)**

## Participants

**CREATE TABLE Participants (**

**ParticipantID INT NOT NULL IDENTITY,**

**FirstName VARCHAR(40) NOT NULL,**

**LastName VARCHAR(40) NOT NULL,**

**Email VARCHAR(100) NOT NULL,**

**Street VARCHAR(40) NOT NULL,**

**City VARCHAR(40) NOT NULL,**

**PostalCode VARCHAR(10) NOT NULL,**

**County VARCHAR(40) NOT NULL,**

**CONSTRAINT Participants\_pk PRIMARY KEY (ParticipantID)**

**);**

## DayParticipants

**CREATE TABLE DayParticipants (**

**DayParticipantID INT NOT NULL IDENTITY,**

**ConferenceDayBooking\_ConferenceDayBookingID INT NOT NULL,**

**Participants\_ParticipantID INT NOT NULL,**

**StudentID VARCHAR(6) NULL DEFAULT NULL,**

**CONSTRAINT ProperStudentID CHECK (**

**StudentID LIKE '^\d{6}$'**

**OR StudentID IS NULL**

**),**

**CONSTRAINT DayParticipants\_pk PRIMARY KEY (DayParticipantID)**

**);**

**-- Reference: DayParticipants\_ConferenceDayBooking (table: DayParticipants)**

**ALTER TABLE DayParticipants ADD CONSTRAINT DayParticipants\_ConferenceDayBooking FOREIGN KEY (ConferenceDayBooking\_ConferenceDayBookingID) REFERENCES ConferenceDayBooking (ConferenceDayBookingID)**

**-- Reference: Participants\_DayParticipants (table: DayParticipants)**

**ALTER TABLE DayParticipants ADD CONSTRAINT Participants\_DayParticipants FOREIGN KEY (Participants\_ParticipantID) REFERENCES Participants (ParticipantID)**

## WorkshopParticipants

**CREATE TABLE WorkshopParticipants (**

**WorkshopParticipantID INT NOT NULL IDENTITY,**

**WorkshopBooking\_WorkshopBookingID INT NOT NULL,**

**DayParticipants\_DayParticipantID INT NOT NULL,**

**CONSTRAINT WorkshopParticipants\_pk PRIMARY KEY (WorkshopParticipantID)**

**);**

**-- Reference: DayParticipants\_WorkshopParticipants (table: WorkshopParticipants)**

**ALTER TABLE WorkshopParticipants ADD CONSTRAINT DayParticipants\_WorkshopParticipants FOREIGN KEY (DayParticipants\_DayParticipantID) REFERENCES DayParticipants (DayParticipantID)**

**-- Reference: WorkshopParticipants\_WorkshopBooking (table: WorkshopParticipants)**

**ALTER TABLE WorkshopParticipants ADD CONSTRAINT WorkshopParticipants\_WorkshopBooking FOREIGN KEY (WorkshopBooking\_WorkshopBookingID) REFERENCES WorkshopBooking (WorkshopBookingID)**

## Clients

**CREATE TABLE Clients (**

**ClientID INT NOT NULL IDENTITY,**

**IsCompany BIT NOT NULL,**

**Name VARCHAR(100) NOT NULL,**

**Surname VARCHAR(100) NULL,**

**Email VARCHAR(100) NOT NULL,**

**CONSTRAINT Clients\_pk PRIMARY KEY (ClientID)**

**);**