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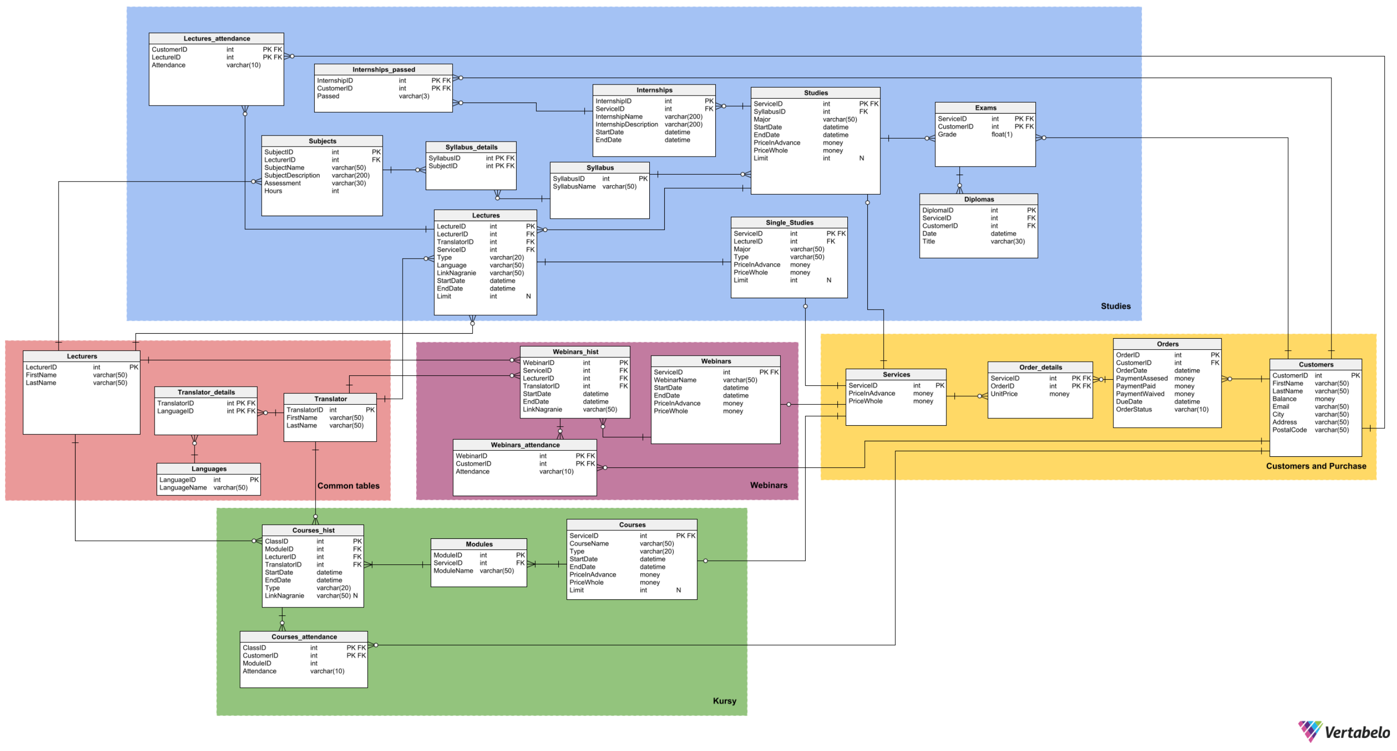
RAPORT PROJEKTU Z PODSTAW BAZ DANYCH 23/24

System bazy danych firmy oferującej usługi naukowe

Spis treści



1. Opis systemu

Firma oferuje różnorakie usługi uczelniane w postaci kursów, webinarów oraz umożliwia zapis na studia. Zajęcia przeprowadzane są w formie stacjonarnej, online bądź hybrydowej, zależnie od typu usługi.

Klient może zakupić równolegle dostęp do wielu usług lub uzyskać dostęp do darmowych spotkań i nagrań.

System zawiera informacje o założonych kontach, wykupionych usługach, statusach zajęć oraz płatności oraz możliwość modyfikacji poszczególnych danych, przez uprawnione do tego jednostki.

2. Funkcje realizowane przez system

2.1. Klient firmy

- Wyświetlanie oferty usług świadczonych przez firmę
- Zapisanie się na webinary, kursy, studia lub pojedyncze zajęcia ze studiów
- Dostęp do:
    - Własnego harmonogramu zajęć
    - Historii odbytych zajęć wraz ze statusem obecności
    - Zakupionych usług
    - Bilansu konta
    - Darmowych bądź zakupionych nagrań świadczonych usług
- Dodanie wybranych usług do koszyka
- Dokonanie płatności za usługi
- Zakup nagrań świadczonych usług
- Odebranie dyplomu po zakończonym cyklu zajęć
- Wyświetlanie zajęć kolidujących ze sobą

2.2. Pracownicy

2.2.1. Wykładowcy

- Dostęp do informacji dotyczących prowadzonych przez niego zajęć
- Wprowadzanie obecności na zajęciach
- Ustalanie zaliczeń po zakończonym cyklu zajęć

2.2.2. Pracownicy organizacyjni

- Ustalanie i modyfikacje harmonogramu poszczególnych zajęć
- Obsługiwanie raportów o:
    - Zestawieniu przychodów dla każdego webinaru/kursu/studium.
    - Liście „dłużników" – osób, które skorzystały z usług, ale nie uiściły opłat.
    - Liczbie osób zapisanych na przyszłe wydarzenia.
    - Frekwencji na zakończonych już wydarzeniach.
    - Liście obecności dla każdego szkolenia z datą, imieniem, nazwiskiem i informacją czy uczestnik był obecny, czy nie
    - Bilokacji: lista osób, które są zapisane na co najmniej dwa przyszłe szkolenia, które ze sobą kolidują czasowo
- Dodawanie tłumacza na wydarzenia

2.2.3. Dyrektor Szkoły

- Zatwierdzanie wyjątków dotyczących odroczenia płatności

3. Diagram Bazy Danych

4. Realizowane tabele

4.1 *Customers and Purchase*

4.1.1 Customers

- PK: CustomerID
- Opis: Tabela przechowuje informacje na temat klientów firmy/studentów

```
 CREATE TABLE Courses (
    ServiceID int IDENTITY(3,4) PRIMARY KEY,
    CourseName varchar(50)  NOT NULL,
    Type varchar(20)  CHECK(Type in ('Online', 'Hybrid', 'Stationary')) NOT NULL,
    StartDate datetime CHECK(StartDate >= '2019-01-01') NOT NULL,
    EndDate datetime   NOT NULL,
    PriceInAdvance money   NOT NULL,
    PriceWhole money  NOT NULL,
    Limit int NULL,
    CONSTRAINT CoursesDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    ),
    CONSTRAINT CoursesPriceCheck CHECK (
    PriceInAdvance >= 0 AND
    PriceWhole >= 0 AND
    PriceInAdvance <= PriceWhole
    ),
    CONSTRAINT CoursesLimitCheck CHECK (
    Limit > 0 OR Limit IS NULL
    )
);

ALTER TABLE Courses ADD CONSTRAINT Courses_Cennik
    FOREIGN KEY (ServiceID)
    REFERENCES Services (ServiceID);
```

4.1.2 Orders

- PK: OrderID
- FK: CustomerID
- Opis: Tabela przechowuje spis wszystkich przeszłych zamówień, pole *OrderStatus* wskazuje na to, czy zamówienie jest na razie w koszyku, czy zostało już zrealizowane

```
CREATE TABLE Orders (
    OrderID int  IDENTITY(1,1) PRIMARY KEY,
    CustomerID int  NOT NULL,
    OrderDate datetime CHECK(OrderDate >= '2019-01-01') NOT NULL,
    PaymentAssesed money  NOT NULL,
    PaymentPaid money  NOT NULL,
    PaymentWaived money  NOT NULL,
    DueDate datetime   NOT NULL,
    OrderStatus varchar(10) CHECK(OrderStatus in ('Ordered', 'InCart'))  NOT NULL,
    CONSTRAINT OrdersDateCheck CHECK (
    ISDATE(DueDate) = 1 AND
    ISDATE(OrderDate) = 1 AND
    DueDate > OrderDate
    ),
    CONSTRAINT OrdersPaymentCheck CHECK (
    PaymentAssesed >= 0 AND
    PaymentPaid >= 0 AND
    PaymentWaived >= 0 AND
    PaymentAssesed >= PaymentPaid
    )
);

ALTER TABLE Orders ADD CONSTRAINT Orders_Customers
    FOREIGN KEY (CustomerID)
    REFERENCES Customers (CustomerID);
```

4.1.3 Order_details

- PK: OrderID, ServiceID
- FK: OrderID, ServiceID
- Opis: Tabela przechowuje informacje na temat każdego z zamówień z tabeli *Orders*

```
CREATE TABLE Order_details (
    ServiceID int  NOT NULL,
    OrderID int  NOT NULL,
    UnitPrice money  NOT NULL,
    CONSTRAINT Order_details_pk PRIMARY KEY  (ServiceID,OrderID),
    CONSTRAINT Order_detailsUnitPriceCheck CHECK (
    UnitPrice >= 0
    )
);

ALTER TABLE Order_details ADD CONSTRAINT Order_details_Orders
    FOREIGN KEY (OrderID)
    REFERENCES Orders (OrderID);
```

4.1.4 Services

- PK: ServiceID
- Opis: Tabela przechowuje wszystkie usługi wraz z ceną

```
CREATE TABLE Services (
    ServiceID int  PRIMARY KEY,
    PriceInAdvance money   NOT NULL,
    PriceWhole money  NOT NULL,
    CONSTRAINT ServicesPriceCheck CHECK (
    PriceInAdvance >= 0 AND
    PriceWhole >= 0 AND
    PriceInAdvance <= PriceWhole
    )
);
```

4.2 *Studies*

4.2.1 Studies

- PK: ServiceID
- FK: ServiceID, SyllabusID
- Opis: Tabela przechowuje wszystkie realizowane studia teraz i w przeszłości

```
CREATE TABLE Studies (
    ServiceID int IDENTITY(2,4) PRIMARY KEY,
    SyllabusID int  NOT NULL,
    Major varchar(50)  CHECK (LEFT(Major, 1) = UPPER(LEFT(Major, 1))) NOT NULL,
    StartDate datetime CHECK(StartDate >= '2019-01-01') NOT NULL,
    EndDate datetime   NOT NULL,
    PriceInAdvance money  NOT NULL,
    PriceWhole money  NOT NULL,
    Limit int NULL,
    CONSTRAINT StudiesDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    ),
    CONSTRAINT StudiesPriceCheck CHECK (
    PriceInAdvance >= 0 AND
    PriceWhole >= 0 AND
    PriceInAdvance <= PriceWhole
    ),
    CONSTRAINT StudiesLimitCheck CHECK (
    Limit > 0 OR Limit IS NULL
    )
);

ALTER TABLE Studies ADD CONSTRAINT Studies_Cennik
    FOREIGN KEY (ServiceID)
    REFERENCES Services (ServiceID);

ALTER TABLE Studies ADD CONSTRAINT Studies_Syllabus
    FOREIGN KEY (SyllabusID)
    REFERENCES Syllabus (SyllabusID);
```

4.2.2 SingleStudies

- PK: ServiceID
- FK: ServiceID
- Opis: Tabela przechowuje możliwe pojedyncze zajęcia studyjne

```
CREATE TABLE Single_Studies (
    ServiceID int IDENTITY(4,4) PRIMARY KEY,
    LectureID int NOT NULL,
    Major varchar(50)  CHECK (LEFT(Major, 1) = UPPER(LEFT(Major, 1))) NOT NULL,
    Type varchar(20)  CHECK(Type in ('Online', 'Hybrid', 'Stationary')) NOT NULL,
    Limit int NULL,
    PriceInAdvance money   NOT NULL,
    PriceWhole money  NOT NULL,
    CONSTRAINT Single_StudiesPriceCheck CHECK (
    PriceInAdvance >= 0 AND
    PriceWhole >= 0 AND
    PriceInAdvance <= PriceWhole
    ),
    CONSTRAINT Single_StudiesLimitCheck CHECK (
    Limit > 0 OR Limit IS NULL
    )
);

ALTER TABLE Single_Studies ADD CONSTRAINT Services_Single_Studies
    FOREIGN KEY (ServiceID)
    REFERENCES Services (ServiceID);

ALTER TABLE Single_Studies ADD CONSTRAINT Lectures_Single_Studies
    FOREIGN KEY (LectureID)
    REFERENCES Lectures(LectureID);
```

4.2.3 Lectures

- PK: LectureID
- FK: ServiceID, LecturerID, TranslatorID
- Opis: Tabela przechowuje wszystkie historyczne wykłady zajęć studyjnych

```
CREATE TABLE Lectures (
    LectureID int IDENTITY(1,1) PRIMARY KEY,
    LecturerID int  NOT NULL,
    TranslatorID int  NOT NULL,
    ServiceID int  NOT NULL,
    Type varchar(20)  CHECK(Type in ('Online', 'Hybrid', 'Stationary')) NOT NULL,
    Language varchar(50) CHECK (LEFT(Language, 1) = UPPER(LEFT(Language, 1))) NOT NULL,
    LinkNagranie varchar(50) NULL,
    StartDate datetime NOT NULL,
    EndDate datetime  NOT NULL,
    Limit int NULL,
    CONSTRAINT LecturesDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    ),
    CONSTRAINT LecturesLimitCheck CHECK (
    Limit > 0 OR Limit IS NULL
    )
);

ALTER TABLE Lectures ADD CONSTRAINT Lectures_Lecturers
    FOREIGN KEY (LecturerID)
    REFERENCES Lecturers (LecturerID);

ALTER TABLE Lectures ADD CONSTRAINT Lectures_Studies
    FOREIGN KEY (ServiceID)
    REFERENCES Studies (ServiceID);

ALTER TABLE Lectures ADD CONSTRAINT Lectures_Translator
    FOREIGN KEY (TranslatorID)
    REFERENCES Translator (TranslatorID);
```

4.2.4 Lectures_attendance

- PK: CustomerID, LectureID
- FK: CustomerID, LectureID
- Opis: Tabela przechowuje listę obecności każdego wykładu

```
CREATE TABLE Lectures_attendance (
    CustomerID int  NOT NULL,
    LectureID int  NOT NULL,
    Attendance varchar(10) CHECK(Attendance in ('Present', 'Absent'))  NOT NULL,
    CONSTRAINT Lectures_attendance_pk PRIMARY KEY  (CustomerID,LectureID)
);

ALTER TABLE Lectures_attendance ADD CONSTRAINT Lectures_attendance_Lectures
    FOREIGN KEY (LectureID)
    REFERENCES Lectures (LectureID);

ALTER TABLE Lectures_attendance ADD CONSTRAINT Lectures_details_Customers
    FOREIGN KEY (CustomerID)
    REFERENCES Customers (CustomerID);
```

4.2.5 Exams

- PK: CustomerID, ServiceID
- FK: CustomerID, ServiceID
- Opis: Tabela przechowuje listę egzaminów każdego ze studentów

```
CREATE TABLE Exams (
    ServiceID int  NOT NULL,
    CustomerID int  NOT NULL,
    Grade float(1) CHECK (Grade in (2.0,3.0,3.5,4.0,4.5,5.0))  NOT NULL,
    CONSTRAINT Exams_pk PRIMARY KEY  (ServiceID,CustomerID)
);

ALTER TABLE Exams ADD CONSTRAINT Exams_Customers
    FOREIGN KEY (CustomerID)
    REFERENCES Customers (CustomerID);

ALTER TABLE Exams ADD CONSTRAINT Exams_Studies
    FOREIGN KEY (ServiceID)
    REFERENCES Studies (ServiceID);
```

4.2.6 Diplomas

- PK: DiplomaID
- FK: CustomerID, ServiceID
- Opis: Tabela przechowuje dyplomy przyznane za ukończenie studiów

```
CREATE TABLE Diplomas (
    DiplomaID int IDENTITY(1,1) PRIMARY KEY,
    ServiceID int  NOT NULL,
    CustomerID int  NOT NULL,
    Date datetime  CHECK(Date >= '2019-01-01') NOT NULL,
    Title varchar(30) CHECK (LEFT(Title, 1) = UPPER(LEFT(Title, 1))) NOT NULL,
    CONSTRAINT DiplomasDateCheck CHECK (
    ISDATE(Date) = 1
    )
);
```

```
ALTER TABLE Diplomas ADD CONSTRAINT Diplomas_Exams
    FOREIGN KEY (ServiceID,CustomerID)
    REFERENCES Exams (ServiceID,CustomerID);
```

4.2.7 Internships

- PK: InternshipID
- FK: ServiceID
- Opis: Tabela przechowuje praktyki z każdych studiów

```
CREATE TABLE Internships (
    InternshipID int  IDENTITY(1,1) PRIMARY KEY,
    ServiceID int  NOT NULL,
    InternshipName varchar(200) CHECK (LEFT(InternshipName, 1) = UPPER(LEFT(InternshipName, 1))) NOT NULL,
    InternshipDescription varchar(200)   NOT NULL,
    StartDate datetime CHECK(StartDate >= '2019-01-01') NOT NULL,
    EndDate datetime  NOT NULL,
    CONSTRAINT InternshipsDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    )
);

ALTER TABLE Internships ADD CONSTRAINT Internships_Studies
    FOREIGN KEY (ServiceID)
    REFERENCES Studies (ServiceID);
```

4.2.8 Internships_passed

- PK: InternshipID, CustomerID
- FK: InternshipID, CustomerID
- Opis: Tabela przechowuje informację, czy praktyka została zaliczona przez danego studenta

```
CREATE TABLE Internships_passed (
    InternshipID int  NOT NULL,
    CustomerID int  NOT NULL,
    Passed varchar(3) CHECK(Passed in ('Yes', 'No')) NOT NULL,
    CONSTRAINT Internships_passed_pk PRIMARY KEY  (InternshipID,CustomerID)
);

ALTER TABLE Internships_passed ADD CONSTRAINT Internships_passed_Customers
    FOREIGN KEY (CustomerID)
    REFERENCES Customers (CustomerID);

ALTER TABLE Internships_passed ADD CONSTRAINT Internships_passed_Internships
    FOREIGN KEY (InternshipID)
    REFERENCES Internships (InternshipID);
```

4.2.9 Syllabus

- PK: SyllabusID
- Opis: Tabela przechowuje plan zajęć każdego z kierunków studiów

```
CREATE TABLE Syllabus (
    SyllabusID int IDENTITY(1,1) PRIMARY KEY,
    SyllabusName varchar(50) CHECK (LEFT(SyllabusName, 1) = UPPER(LEFT(SyllabusName, 1))) NOT NULL,
);
```

4.2.10 Syllabus_details

- PK: SyllabusID, SubjectID
- FK: SyllabusID, SubjectID
- Opis: Tabela przechowuje przedmioty każdego z Syllabusów

```
CREATE TABLE Syllabus_details (
    SyllabusID int  NOT NULL,
    SubjectID int  NOT NULL,
    CONSTRAINT Syllabus_details_pk PRIMARY KEY  (SubjectID,SyllabusID)
);

ALTER TABLE Syllabus_details ADD CONSTRAINT Syllabus_details_Subjects
    FOREIGN KEY (SubjectID)
    REFERENCES Subjects (SubjectID);

ALTER TABLE Syllabus_details ADD CONSTRAINT Syllabus_details_Syllabus
    FOREIGN KEY (SyllabusID)
    REFERENCES Syllabus (SyllabusID);
```

4.2.11 Subjects

- PK: SubjectID
- FK: LecturerID
- Opis: Tabela przechowuje informacje na temat każdego z przedmiotów studyjnych

```
CREATE TABLE Subjects (
    SubjectID int  IDENTITY(1,1) PRIMARY KEY,
    LecturerID int  NOT NULL,
    SubjectName varchar(50) CHECK (LEFT(SubjectName, 1) = UPPER(LEFT(SubjectName, 1))) NOT NULL,
    SubjectDescription varchar(200) NOT NULL,
    Hours int  NOT NULL,
    Assessment varchar(30) CHECK(Assessment in ('Attendance', 'Exam', 'Internship'))NOT NULL,
    CONSTRAINT SubjectsHoursCheck CHECK (
    Hours > 0
    )
);

ALTER TABLE Subjects ADD CONSTRAINT Subjects_Lecturers
    FOREIGN KEY (LecturerID)
    REFERENCES Lecturers (LecturerID);
```

4.3 *Webinars*

4.3.1 Webinars

- PK: ServiceID
- FK: ServiceID
- Opis: Tabela przechowuje wszystkie webinary

```
CREATE TABLE Webinars (
    ServiceID int  IDENTITY(1,4) PRIMARY KEY,
    WebinarName varchar(50)  CHECK (LEFT(WebinarName, 1) = UPPER(LEFT(WebinarName, 1))) NOT NULL,
    StartDate datetime CHECK(StartDate >= '2019-01-01') NOT NULL,
    EndDate datetime  NOT NULL,
    PriceInAdvance money   NOT NULL,
    PriceWhole money  NOT NULL,
    CONSTRAINT WebinarsDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    ),
    CONSTRAINT WebinarsPriceCheck CHECK (
    PriceInAdvance >= 0 AND
    PriceWhole >= 0 AND
    PriceInAdvance <= PriceWhole
    )
);

ALTER TABLE Webinars ADD CONSTRAINT Webinars_Services
    FOREIGN KEY (ServiceID)
    REFERENCES Services (ServiceID);
```

4.3.2 Webinars_hist

- PK: ServiceID, LecturerID
- FK: ServiceID, LecturerID, TranslatorID
- Opis: Tabela przechowuje informacje na temat każdego z webinarów

```
CREATE TABLE Webinars_hist (
    WebinarID int IDENTITY(1,1) PRIMARY KEY,
    ServiceID int  NOT NULL,
    LecturerID int  NOT NULL,
    TranslatorID int  NOT NULL,
    StartDate datetime CHECK(StartDate >= '2019-01-01')  NOT NULL,
    EndDate datetime  NOT NULL,
    LinkNagranie varchar(50)  NOT NULL,
    CONSTRAINT Webinars_histDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    )
);

ALTER TABLE Webinars_hist ADD CONSTRAINT Webinars_hist_Lecturers
    FOREIGN KEY (LecturerID)
    REFERENCES Lecturers (LecturerID);

ALTER TABLE Webinars_hist ADD CONSTRAINT Webinars_hist_Translator
    FOREIGN KEY (TranslatorID)
    REFERENCES Translator (TranslatorID);

ALTER TABLE Webinars_hist ADD CONSTRAINT Webinars_hist_Webinars
    FOREIGN KEY (ServiceID)
    REFERENCES Webinars (ServiceID);
```

4.3.3 Webinars_attendance

- PK: WebinarID, CustomerID
- FK: WebinarID, CustomerID
- Opis: Tabela przechowuje informacje na temat obecności na webinarach

```
CREATE TABLE Webinars_attendance (
    WebinarID int  NOT NULL,
    CustomerID int  NOT NULL,
    Attendance varchar(10)  NOT NULL,
    CONSTRAINT Webinars_attendance_pk PRIMARY KEY  (CustomerID,WebinarID)
);
```

4.3 *Kursy*

4.3.1 Courses

- PK: ServiceID
- FK: ServiceID
- Opis: Tabela przechowuje wszystkie realizowane kursy teraz i w przeszłości

```
CREATE TABLE Courses (
    ServiceID int IDENTITY(3,4) PRIMARY KEY,
    CourseName varchar(50)  NOT NULL,
    Type varchar(20)  CHECK(Type in ('Online', 'Hybrid', 'Stationary')) NOT NULL,
    StartDate datetime CHECK(StartDate >= '2019-01-01') NOT NULL,
    EndDate datetime   NOT NULL,
    PriceInAdvance money   NOT NULL,
    PriceWhole money  NOT NULL,
    Limit int NULL,
    CONSTRAINT CoursesDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    ),
    CONSTRAINT CoursesPriceCheck CHECK (
    PriceInAdvance >= 0 AND
    PriceWhole >= 0 AND
    PriceInAdvance <= PriceWhole
    ),
    CONSTRAINT CoursesLimitCheck CHECK (
    Limit > 0 OR Limit IS NULL
    )
);

ALTER TABLE Courses ADD CONSTRAINT Courses_Cennik
    FOREIGN KEY (ServiceID)
    REFERENCES Services (ServiceID);
```

4.3.2 Modules

- PK: ModuleID
- FK: ServiceID
- Opis: Tabela przechowuje listę modułów każdego z kursów

```
CREATE TABLE Modules (
    ModuleID int  IDENTITY(1,1) PRIMARY KEY,
    ServiceID int  NOT NULL,
    ModuleName varchar(50) NOT NULL
);

ALTER TABLE Modules ADD CONSTRAINT Modules_Courses
    FOREIGN KEY (ServiceID)
    REFERENCES Courses (ServiceID);
```

4.3.3 Courses_hist

- PK: ClassID
- FK: ModuleID, LecturerID, TranslatorID
- Opis: Tabela przechowuje informacje o każdym module

```
CREATE TABLE Courses_hist (
    ClassID int IDENTITY(1,1) PRIMARY KEY,
    ModuleID int  NOT NULL,
    LecturerID int  NOT NULL,
    TranslatorID int  NOT NULL,
    StartDate datetime CHECK(StartDate >= '2019-01-01') NULL,
    EndDate datetime  NOT NULL,
    Type varchar(20)  CHECK(Type in ('Online', 'Hybrid', 'Stationary')) NOT NULL,
    LinkNagranie varchar(50) NULL,
    CONSTRAINT Courses_histDateCheck CHECK (
    ISDATE(StartDate) = 1 AND
    ISDATE(EndDate) = 1 AND
    EndDate > StartDate
    )
);

ALTER TABLE Courses_hist ADD CONSTRAINT Courses_hist_Lecturers
    FOREIGN KEY (LecturerID)
    REFERENCES Lecturers (LecturerID);

ALTER TABLE Courses_hist ADD CONSTRAINT Courses_hist_Modules
    FOREIGN KEY (ModuleID)
    REFERENCES Modules (ModuleID);

ALTER TABLE Courses_hist ADD CONSTRAINT Courses_hist_Translator
    FOREIGN KEY (TranslatorID)
    REFERENCES Translator (TranslatorID);
```

4.3.4 Courses_attendace

- PK: ClassID, CustomerID
- FK: ClassID, CustomerID
- Opis: Tabela przechowuje listę obecności każdego z modułów

```
CREATE TABLE Courses_attendance (
    ClassID int  NOT NULL,
    CustomerID int  NOT NULL,
    ModuleID int  NOT NULL,
    Attendance varchar(10) CHECK(Attendance in ('Present', 'Absent'))  NOT NULL,
    CONSTRAINT Courses_attendance_pk PRIMARY KEY  (CustomerID,ClassID)
);

ALTER TABLE Courses_attendance ADD CONSTRAINT Courses_attendance_Courses_hist
    FOREIGN KEY (ClassID)
    REFERENCES Courses_hist (ClassID);

ALTER TABLE Courses_attendance ADD CONSTRAINT Courses_attendance_Customers
```

```
    FOREIGN KEY (CustomerID)
    REFERENCES Customers (CustomerID);
```

4.4 *Common tables*

4.4.1 Lecturers

- PK: LecturerID
- Opis: Tabela przechowuje informacje na temat każdego z wykładowców

```
CREATE TABLE Lecturers (
    LecturerID int IDENTITY(1,1) PRIMARY KEY,
    FirstName varchar(50) CHECK (LEFT(FirstName, 1) = UPPER(LEFT(FirstName, 1))) NOT NULL,
    LastName varchar(50) CHECK (LEFT(LastName, 1) = UPPER(LEFT(LastName, 1))) NOT NULL,
);

ALTER TABLE Lectures ADD CONSTRAINT Lectures_Lecturers
    FOREIGN KEY (LecturerID)
    REFERENCES Lecturers (LecturerID);

ALTER TABLE Lectures ADD CONSTRAINT Lectures_Studies
    FOREIGN KEY (ServiceID)
    REFERENCES Studies (ServiceID);

ALTER TABLE Lectures ADD CONSTRAINT Lectures_Translator
    FOREIGN KEY (TranslatorID)
    REFERENCES Translator (TranslatorID);
```

4.4.2 Translator

- PK: TranslatorID
- Opis: Tabela przechowuje informacje na temat każdego z tłumaczy

```
CREATE TABLE Translator (
    TranslatorID int  IDENTITY(1,1) PRIMARY KEY,
    FirstName varchar(50) CHECK (LEFT(FirstName, 1) = UPPER(LEFT(FirstName, 1))) NOT NULL,
    LastName varchar(50) CHECK (LEFT(LastName, 1) = UPPER(LEFT(LastName, 1))) NOT NULL,
);
```

4.4.3 Translator_details

- PK: TranslatorID, LanguageID
- FK: TranslatorID, LanguageID
- Opis: Tabela przechowuje informacje na temat języków, które zna każdy z tłumaczy

```
CREATE TABLE Translator_details (
    TranslatorID int  NOT NULL,
    LanguageID int  NOT NULL,
    CONSTRAINT Translator_details_pk PRIMARY KEY  (TranslatorID,LanguageID)
);

ALTER TABLE Translator_details ADD CONSTRAINT Translator_details_Languages
    FOREIGN KEY (LanguageID)
    REFERENCES Languages (LanguageID);

ALTER TABLE Translator_details ADD CONSTRAINT Translator_details_Translator
    FOREIGN KEY (TranslatorID)
    REFERENCES Translator (TranslatorID);
```

4.4.4 Languages

- PK: LanguageID
- Opis: Tabela przechowuje informacje dostępnych języków

```
CREATE TABLE Languages (
    LanguageID int  IDENTITY(1,1) PRIMARY KEY,
    LanguageName varchar(50)  NOT NULL,
);
```

5. Widoki

1. Raporty finansowe – zestawienie przychodów dla każdego webinaru/kursu/studium.

```
Create view dbo.FinancialRaport as
select
    Major as Nazwa,
    sum(Services.PriceWhole) as Przychody,
    Studies.StartDate as Date
from
    Services
    join Studies on Services.ServiceID = Studies.ServiceID
group by Major, Services.ServiceID, Studies.StartDate

union

select
    Major as Nazwa,
    sum(Services.PriceWhole) as Przychody,
    Lectures.StartDate as Date
from
    Services
    join Single_Studies on Services.ServiceID = Single_Studies.ServiceID
    join Lectures on Lectures.LectureID = Single_Studies.LectureID
group by Major, Services.ServiceID, Lectures.StartDate

union

select
    WebinarName as Nazwa,
    sum(Services.PriceWhole) as Przychody,
    Webinars.StartDate as Date
from
    Services
    join Webinars on Services.ServiceID = Webinars.ServiceID
group by
    WebinarName,
    Services.ServiceID,
    Webinars.StartDate

union

select
    CourseName as Nazwa,
    sum(Services.PriceWhole) as Przychody,
    Courses.StartDate as Date
from
    Services
    join Courses on Services.ServiceID = Courses.ServiceID
group by
    CourseName,
    Services.ServiceID,
    Courses.StartDate;
```

2. Lista „dłużników" – osoby, które skorzystały z usług, ale nie uiściły opłat.

```
Create view dbo.DebtorsList as
select
    FirstName,
    LastName,
    Balance
from
    Customers
where
    Balance < 0 and CustomerID
    in(
        select
            Customers.CustomerID
        from
            Customers
            join Orders on Customers.CustomerID = Orders.CustomerID
            join Order_Details on Orders.OrderID = Order_Details.OrderID
            join Services on Order_Details.ServiceID = Services.ServiceID
            join Studies on Services.ServiceID = Studies.ServiceID
        where
            Studies.StartDate < GETDATE()
        group by
            Customers.CustomerID

        union

        select
            Customers.CustomerID
        from
            Customers
            join Orders on Customers.CustomerID = Orders.CustomerID
            join Order_Details on Orders.OrderID = Order_Details.OrderID
            join Services on Order_Details.ServiceID = Services.ServiceID
            join Single_studies on Services.ServiceID = Single_studies.ServiceID
            join Lectures on Lectures.LectureID = Single_studies.LectureID
        where
            Lectures.StartDate < GETDATE()
        group by
            Customers.CustomerID

        union

        select
            Customers.CustomerID
        from
            Customers
            join Orders on Customers.CustomerID = Orders.CustomerID
            join Order_Details on Orders.OrderID = Order_Details.OrderID
            join Services on Order_Details.ServiceID = Services.ServiceID
            join Webinars on Webinars.ServiceID = Services.ServiceID
        where
            Webinars.StartDate < GETDATE()
        group by
            Customers.CustomerID

        union

        select
            Customers.CustomerID
        from
            Customers
            join Orders on Customers.CustomerID = Orders.CustomerID
            join Order_Details on Orders.OrderID = Order_Details.OrderID
            join Services on Order_Details.ServiceID = Services.ServiceID
            join Courses on Services.ServiceID = Courses.ServiceID
        where
            Courses.StartDate < GETDATE()
        group by
            Customers.CustomerID)
        group by
            FirstName, LastName, Balance;
```

3. Ogólny raport dotyczący liczby zapisanych osób na przyszłe wydarzenia (z informacją, czy wydarzenie jest stacjonarnie, czy zdalnie).

```
Create view dbo.FutureEventsAttendance as
select
    Lectures.ServiceID,
    Lectures.LecturerID,
    Lectures.Type as Typ,
    Lectures.StartDate,
    count(Customers.CustomerID) as Liczba_Zapisanych_Osób
from
    Customers
    join Orders on Customers.CustomerID = Orders.CustomerID
    join Order_Details on Orders.OrderID = Order_Details.OrderID
    join Services on Order_Details.ServiceID = Services.ServiceID
    join Studies on Studies.ServiceID = Services.ServiceID
    join Lectures on Lectures.ServiceID = Studies.ServiceID
where
    Lectures.StartDate > GETDATE()
group by
    Lectures.ServiceID,
    Lectures.LecturerID,
    Lectures.Type,
    Lectures.StartDate

union

select
    Lectures.ServiceID,
    Lectures.LecturerID,
    Lectures.Type as Typ,
    Lectures.StartDate,
    count(Customers.CustomerID) as Liczba_Zapisanych_Osób
from
    Customers
    join Orders on Customers.CustomerID = Orders.CustomerID
    join Order_Details on Orders.OrderID = Order_Details.OrderID
    join Services on Order_Details.ServiceID = Services.ServiceID
    join Single_studies on Single_studies.ServiceID = Services.ServiceID
    join Lectures on Lectures.ServiceID = Single_studies.ServiceID
where
    Lectures.StartDate > GETDATE()
group by
    Lectures.ServiceID,
    Lectures.LecturerID,
    Lectures.Type,
    Lectures.StartDate

union

select
    Webinars_hist.ServiceID,
    Webinars_hist.LecturerID,
    'Zdalnie' as Typ,
    Webinars_hist.StartDate,
    count(Customers.CustomerID) as Liczba_Zapisanych_Osób
from
    Customers
    join Orders on Customers.CustomerID = Orders.CustomerID
    join Order_Details on Orders.OrderID = Order_Details.OrderID
    join Services on Order_Details.ServiceID = Services.ServiceID
    join Webinars on Webinars.ServiceID = Services.ServiceID
    join Webinars_hist on Webinars_hist.ServiceID = Webinars.ServiceID
where
    Webinars_hist.StartDate > GETDATE()
group by
    Webinars_hist.ServiceID,
    Webinars_hist.LecturerID,
    Webinars_hist.StartDate


union

select
    Courses_hist.ClassID,
    Courses_hist.LecturerID,
    Courses.Type as Typ,
    Courses_hist.StartDate,
    count(Customers.CustomerID) as Liczba_Zapisanych_Osób
from
    Customers
    join Orders on Customers.CustomerID = Orders.CustomerID
    join Order_Details on Orders.OrderID = Order_Details.OrderID
    join Services on Order_Details.ServiceID = Services.ServiceID
    join Courses on Courses.ServiceID = Services.ServiceID
    join Modules on Modules.ServiceID = Courses.ServiceID
    join Courses_hist on Courses_hist.ModuleID = Modules.ModuleID
where
    Courses_hist.StartDate > GETDATE()
group by
    Courses_hist.ClassID,
    Courses_hist.LecturerID,
    Courses.Type,
    Courses_hist.StartDate;
```

4. Ogólny raport dotyczący frekwencji na zakończonych już wydarzeniach.

```
create view dbo.AttendanceRaport as
select
    ServiceType,
    EventID,
    CustomerID,
    Attendance
from
    (
        select
            'Lecture' as ServiceType,
            Lectures_attendance.LectureID as EventID,
            Lectures_attendance.CustomerID,
            Lectures_attendance.Attendance
        from
            Lectures_attendance
            join Lectures on Lectures_attendance.LectureID = Lectures.LectureID
        where
            Lectures.EndDate <= getdate()

        union

        select
            'Webinar' as ServiceType,
            Webinars_attendance.WebinarID as EventID,
            Webinars_attendance.CustomerID,
            Webinars_attendance.attendance
        from
            Webinars_attendance
            join Webinars_hist on Webinars_attendance.WebinarID = Webinars_hist.WebinarID
        where
            Webinars_hist.EndDate <= getdate()

        union

        select
            'Course' as ServiceType,
            Courses_attendance.ClassID as EventID,
            Courses_attendance.CustomerID,
            Courses_attendance.Attendance
        from
            Courses_attendance
            join Courses_hist on Courses_attendance.ClassID = Courses_hist.ClassID
        where
            Courses_hist.EndDate <= getdate()
    ) AttendanceRaport;
```

5. Lista obecności dla każdego szkolenia z datą, imieniem, nazwiskiem i informacją czy uczestnik był obecny, czy nie.

```
create view dbo.AttendanceList as
select
    'Studies' as ServiceType,
    Studies.ServiceID as ServiceID,
    Lectures.StartDate as Date,
    Customers.FirstName,
    Customers.LastName,
    Lectures_attendance.Attendance as AttendanceStatus
from
    Studies
    join Lectures on Studies.ServiceID = Lectures.ServiceID
    join Lectures_attendance on Lectures.LectureID = Lectures_attendance.LectureID
    join Customers on Lectures_attendance.CustomerID = Customers.CustomerID

union

select
    'Single_Studies' as ServiceType,
    Single_Studies.ServiceID as ServiceID,
    Lectures.StartDate as Date,
    Customers.FirstName,
    Customers.LastName,
    Lectures_attendance.Attendance as AttendanceStatus
from
    Single_Studies
    join Lectures on Single_Studies.LectureID = Lectures.LectureID
    join Lectures_attendance on Lectures.LectureID = Lectures_attendance.LectureID
    join Customers on Lectures_attendance.CustomerID = Customers.CustomerID

union

select
    'Webinars' as ServiceType,
    Webinars.ServiceID as ServiceID,
    Webinars_hist.StartDate as Date,
    Customers.FirstName,
    Customers.LastName,
    Webinars_attendance.Attendance as AttendanceStatus
from
    Webinars
    join Webinars_hist Webinars_hist on Webinars.ServiceID = Webinars_hist.ServiceID
    join Webinars_attendance Webinars_attendance on Webinars_hist.WebinarID = Webinars_attendance.WebinarID
    join Customers on Webinars_attendance.CustomerID = Customers.CustomerID

union

select
    'Courses' as ServiceType,
    Courses.ServiceID as ServiceID,
    Courses_hist.StartDate as Date,
    Customers.FirstName,
    Customers.LastName,
    Courses_attendance.Attendance as AttendanceStatus
from
    Courses
    join Modules on Courses.ServiceID = Modules.ServiceID
    join Courses_hist on Courses.ServiceID = Modules.ServiceID
    join Courses_attendance on Courses_hist.ClassID = Courses_attendance.ClassID
    join Customers on Courses_attendance.CustomerID = Customers.CustomerID;
```

6. Funkcje

1. Koszyk studenta

```
CREATE FUNCTION GetCustomerCart (@CustomerID INT)
RETURNS TABLE
AS
RETURN (
    select * from Orders
    where CustomerID = @CustomerID AND OrderStatus = 'InCart'
)
```

2. Harmonogram studiów

```
CREATE FUNCTION GetStudiesSchedule (@ServiceID INT)
RETURNS TABLE
AS
RETURN (
    SELECT * from Lectures
    where Lectures.ServiceID = @ServiceID
)
```

3. Harmonogram przyszłych zajęć dla użytkownika

```
CREATE FUNCTION GetCustomerSchedule (@CustomerID INT)
RETURNS TABLE
AS
RETURN (
    WITH t1 AS (
        SELECT s.ServiceID
        FROM Orders o
        JOIN Order_details od ON o.OrderID = od.OrderID
        JOIN Services s ON od.ServiceID = s.ServiceID
        WHERE o.CustomerID = @CustomerID
    )

    SELECT t1.ServiceID, l.LectureID, l.StartDate
    FROM t1
    JOIN Studies s ON t1.ServiceID = s.ServiceID
    JOIN Lectures l ON s.ServiceID = l.ServiceID
    WHERE l.StartDate > GETDATE()

    UNION

    SELECT t1.ServiceID, w.ServiceID, w.StartDate
    FROM t1
    JOIN Webinars w ON t1.ServiceID = w.ServiceID
    WHERE w.StartDate > GETDATE()

    UNION

    SELECT t1.ServiceID, m.ModuleID, ch.StartDate
    FROM t1
    JOIN Courses c ON t1.ServiceID = c.ServiceID
    JOIN Modules m ON c.ServiceID = m.ServiceID
    JOIN Courses_hist ch ON m.ModuleID = ch.ModuleID
    WHERE ch.StartDate > GETDATE()
);
```

4. Sprawdza czy zajęcia kursu mieszczą się w ramach czasowych kursu

```
CREATE FUNCTION CheckClassDates
(
    @ModuleID int,
    @StartDateOfClass datetime,
    @EndDateOfClass datetime
)
RETURNS bit
AS
BEGIN
    DECLARE @IsValid bit = 0;

    DECLARE @CourseStartDate datetime;
    DECLARE @CourseEndDate datetime;

    SELECT @CourseStartDate = c.StartDate, @CourseEndDate = c.EndDate
    FROM Modules m
    INNER JOIN Courses c ON m.ServiceID = c.ServiceID
    WHERE m.ModuleID = @ModuleID;


    IF @StartDateOfClass >= @CourseStartDate AND @EndDateOfClass <= @CourseEndDate
    BEGIN
        SET @IsValid = 1;
    END

    RETURN @IsValid;
END;
```

5. Sprawdza czy wykład mieści się w ramach czasowych trwania studiów

```
CREATE FUNCTION dbo.CheckLectureDates
(
    @ServiceID int,
    @StartDate datetime,
    @EndDate datetime
)
RETURNS BIT
AS
BEGIN
    DECLARE @IsValid BIT = 0;
    IF EXISTS (
        SELECT 1
        FROM Studies s
        WHERE s.ServiceID = @ServiceID
          AND @StartDate >= s.StartDate
          AND @EndDate <= s.EndDate
    )
    BEGIN
        SET @IsValid = 1;
    END

    RETURN @IsValid;
END;
```

6. Sprawdza czy limit miejsc na pojedynczych zajęciach studyjnych mieści się w zakresie możliwych wartości

```
CREATE FUNCTION dbo.CheckLimitForSingleStudies
(
    @LectureID int,
    @Limit int
)
RETURNS BIT
AS
BEGIN
    DECLARE @IsValid BIT = 1;
    IF @Limit IS NOT NULL
    BEGIN
        IF EXISTS (
            SELECT 1
            FROM Lectures l
            LEFT JOIN Studies s ON l.ServiceID = s.ServiceID
            WHERE l.LectureID = @LectureID
              AND @Limit > (l.Limit - ISNULL(s.Limit, 0))
        )
        BEGIN
            SET @IsValid = 0;
        END
    END

    RETURN @IsValid;
END;
```

7. Sprawdza czy użytkownik posiada obecnie coś w koszyku

```
CREATE FUNCTION IsThereCart (@CustomerID INT)
RETURNS INT
AS
BEGIN
    DECLARE @CartOrderID INT;

    SELECT @CartOrderID = OrderID
    FROM Orders
    WHERE CustomerID = @CustomerID
      AND OrderStatus = 'InCart';

    RETURN @CartOrderID;
END;
```

8. Sprawdza czy usługa posiada wolne miejsca na dowolne wydarzenie - czy można się na nie zapisać

```
CREATE FUNCTION checklimit(@ServiceID INT)
RETURNS BIT
AS
BEGIN
    DECLARE @ModResult INT;
    DECLARE @OrderCount INT;

    SET @ModResult = @ServiceID % 4;
    DECLARE @Limit INT;


    IF @ModResult = 1
    BEGIN
        RETURN 1;
    END
    ELSE
    SELECT @OrderCount = COUNT(*)
    FROM Order_details od
    WHERE od.ServiceID = @ServiceID and  od.UnitPrice >0 ;
    BEGIN
        IF @ModResult = 2
        BEGIN

            SELECT @Limit = s.Limit
            FROM Studies s
            WHERE s.ServiceID = @ServiceID;

            RETURN CASE WHEN @OrderCount < @Limit THEN 1 ELSE 0 END;
        END
        ELSE IF @ModResult = 3
        BEGIN

            SELECT @Limit = c.Limit
            FROM Courses c
            WHERE c.ServiceID = @ServiceID;

            RETURN CASE WHEN @OrderCount < @Limit THEN 1 ELSE 0 END;
        END
        ELSE IF @ModResult = 0
        BEGIN
```

```
            SELECT @Limit = ss.Limit
            FROM Single_Studies ss
            WHERE ss.ServiceID = @ServiceID;

            RETURN CASE WHEN @OrderCount < @Limit THEN 1 ELSE 0 END;
        END
        RETURN 0;

    END
END;
```

9. Sprawdza czy użytkownik jest zapisany na zajęcia kursu

```
CREATE FUNCTION CoursesIntegrity
(
    @ClassID INT,
    @CustomerID INT
)
RETURNS INT
AS
BEGIN
    DECLARE @Course INT;

    SELECT @Course = m.ServiceID
    FROM Courses_hist ch
    join Modules m
    on ch.ModuleID = m.ModuleID
    WHERE ch.ClassID = @ClassID;
    IF @Course % 4 <> 3
    BEGIN
        RETURN 0;
    END;
    IF EXISTS (
        SELECT 1
        FROM Order_Details od
        join Orders o
        ON o.OrderID = od.OrderID
        WHERE od.ServiceID = @Course
          AND o.CustomerID = @CustomerID
    )
    BEGIN
        RETURN 1;
    END
        RETURN 0;

END;
```

10. Sprawdza czy użytkownik jest zapisany na staż

```
CREATE FUNCTION InternshipsIntegrity
(
    @InternshipID INT,
    @CustomerID INT
)
RETURNS INT
AS
BEGIN
    DECLARE @Studies INT;

    SELECT @Studies = ServiceID
    FROM Internships
    WHERE InternshipID = @InternshipID;

    IF EXISTS (
        SELECT 1
        FROM Order_Details od
        join Orders o
        ON o.OrderID = od.OrderID
        WHERE od.ServiceID = @Studies
          AND o.CustomerID = @CustomerID
    )
    BEGIN
        RETURN 1;
    END
        RETURN 0;

END;
```

11. Sprawdza czy użytkownik jest zapisany na wykład

```
CREATE FUNCTION LecturesAttendanceCheckIntegrity
(
    @CustomerID INT,
    @LectureID INT
)
RETURNS INT
AS
BEGIN
    DECLARE @Studies INT;
    DECLARE @SingleStudies INT;
    SELECT @Studies = ServiceID
    FROM Lectures
    WHERE LectureID = @LectureID;
    SELECT @SingleStudies = ServiceID
    FROM Single_Studies
    WHERE LectureID = @LectureID;

    IF EXISTS (
        SELECT 1
        FROM Order_details od
        join orders o
        on od.OrderID = o.OrderID
        WHERE o.CustomerID = @CustomerID
          AND (od.ServiceID = @Studies OR od.ServiceID = @SingleStudies)
    )
    BEGIN
        RETURN 1;
    END

        RETURN 0;

END;
```

12. Funkcja zwracająca wszystkie dyplomy dla danego użytkownika

```
CREATE FUNCTION GetDiplomasForCustomer
    (@CustomerID INT)
RETURNS TABLE
AS
RETURN
(
    SELECT D.*
    FROM Diplomas AS D
    WHERE D.CustomerID = @CustomerID
);
```

13. Funkcja sprawdzająca czy podany kursant pojawił się na podanym wykładzie

```
CREATE FUNCTION CheckCustomerAttendance
(
    @CustomerID INT,
    @LectureID INT
)
RETURNS BIT
AS
BEGIN
    DECLARE @Attendance BIT;

    SELECT @Attendance = CASE WHEN COUNT(*) > 0 THEN 1 ELSE 0 END
    FROM Lectures_attendance
    WHERE CustomerID = @CustomerID AND LectureID = @LectureID;

    RETURN @Attendance;
END;
```

7. Procedury

1. Dodanie klienta

```
CREATE PROCEDURE AddCustomer
    @FirstName VARCHAR(50),
    @LastName VARCHAR(50),
    @Balance MONEY,
    @Email VARCHAR(50),
    @City VARCHAR(50),
    @Address VARCHAR(50),
    @PostalCode VARCHAR(50)
AS
BEGIN
    INSERT INTO Customers (FirstName, LastName, Balance, Email, City, Address, PostalCode)
    VALUES (@FirstName, @LastName, @Balance, @Email, @City, @Address, @PostalCode);
END;
```

2. Dodanie wykładowcy

```
CREATE PROCEDURE AddLecturer
    @FirstName VARCHAR(50),
    @LastName VARCHAR(50)
AS
BEGIN
    INSERT INTO Lecturers (FirstName, LastName)
    VALUES (@FirstName, @LastName);
END;
```

3. Dodanie tłumacza

```
CREATE PROCEDURE AddTranslator
    @FirstName VARCHAR(50),
    @LastName VARCHAR(50)
AS
BEGIN
    INSERT INTO Translator (FirstName, LastName)
    VALUES (@FirstName, @LastName);
END;
```

4. Dodanie Webinara

```
CREATE PROCEDURE AddWebinar
    @WebinarName varchar(50),
    @StartDate datetime,
    @EndDate datetime,
    @PriceInAdvance money,
    @PriceWhole money,
    @LecturerID int,
    @TranslatorID int,
    @LinkNagranie varchar(50) = NULL
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Lecturers WHERE LecturerID = @LecturerID)
        BEGIN
            THROW 50002, 'Lecturer with provided ID does not exist.', 1;
        END

        IF NOT EXISTS (SELECT 1 FROM Translator WHERE TranslatorID = @TranslatorID)
        BEGIN
            THROW 50003, 'Translator with provided ID does not exist.', 1;
        END

        SET IDENTITY_INSERT Webinars ON

        DECLARE @NewServiceID INT;
        SELECT @NewServiceID = ISNULL(MAX(ServiceID),-3) +4 FROM Webinars;

        INSERT INTO Services (ServiceID, PriceInAdvance, PriceWhole)
        VALUES (@NewServiceID, @PriceInAdvance, @PriceWhole);

        INSERT INTO Webinars (ServiceID,WebinarName, StartDate, EndDate, PriceInAdvance, PriceWhole)
        VALUES (@NewServiceID,@WebinarName, @StartDate, @EndDate, @PriceInAdvance, @PriceWhole);

        INSERT INTO Webinars_hist (ServiceID, LecturerID, TranslatorID, StartDate, EndDate, LinkNagranie)
        VALUES (@NewServiceID, @LecturerID, @TranslatorID, @StartDate, @EndDate, @LinkNagranie);
        SET IDENTITY_INSERT Webinars OFF
        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;
        THROW;
    END CATCH;
END;
```

5. Dodanie kursu

```
CREATE PROCEDURE AddCourse
    @CourseName varchar(50),
    @Type varchar(20),
    @StartDate datetime,
    @EndDate datetime,
    @PriceInAdvance money,
    @PriceWhole money,
    @Limit int = NULL
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        SET IDENTITY_INSERT Courses ON

        DECLARE @NewServiceID INT;
        SELECT @NewServiceID = ISNULL(MAX(ServiceID),-1) +4 from Courses;

        INSERT INTO Services (ServiceID,PriceInAdvance, PriceWhole)
        VALUES (@NewServiceID,@PriceInAdvance, @PriceWhole);


        INSERT INTO Courses (ServiceID, CourseName, Type, StartDate, EndDate, PriceInAdvance, PriceWhole, Limit)
        VALUES (@NewServiceID, @CourseName, @Type, @StartDate, @EndDate, @PriceInAdvance, @PriceWhole, @Limit);

        SET IDENTITY_INSERT Courses OFF

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;
        THROW;
    END CATCH;
END;
```

6. Dodanie Modułu

```
CREATE PROCEDURE AddModule
    @ServiceID int,
    @ModuleName varchar(50)
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Courses WHERE ServiceID = @ServiceID)
        BEGIN
            THROW 50001, 'Course with provided ServiceID does not exist.', 1;
        END

        INSERT INTO Modules (ServiceID, ModuleName)
        VALUES (@ServiceID, @ModuleName);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;
        THROW;
    END CATCH;
END;
```

7. Dodanie elementu do Course_hist

```
CREATE PROCEDURE AddClassCourse
    @ModuleID int,
    @LecturerID int,
    @TranslatorID int,
    @StartDate datetime,
    @EndDate datetime,
    @Type varchar(10),
    @LinkNagranie varchar(50) = NULL
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Modules WHERE ModuleID = @ModuleID)
        BEGIN
            THROW 50001, 'Module with provided ModuleID does not exist.', 1;
        END

        IF NOT EXISTS (SELECT 1 FROM Lecturers WHERE LecturerID = @LecturerID)
        BEGIN
            THROW 50002, 'Lecturer with provided LecturerID does not exist.', 1;
        END

        IF NOT EXISTS (SELECT 1 FROM Translator WHERE TranslatorID = @TranslatorID)
        BEGIN
            THROW 50003, 'Translator with provided TranslatorID does not exist.', 1;
        END
        Declare @checkClassDates bit
        Select @checkClassDates =  dbo.CheckClassDates(@ModuleID, @StartDate, @EndDate)
        IF   @checkClassDates = 0
        BEGIN
            THROW 50004, 'Class dates are not within the valid range for the associated course.', 1;
        END

        INSERT INTO Courses_hist (ModuleID, LecturerID, TranslatorID, StartDate, EndDate, Type, LinkNagranie)
        VALUES (@ModuleID, @LecturerID, @TranslatorID, @StartDate, @EndDate, @Type, @LinkNagranie);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;
        THROW;
    END CATCH;
END;
```

8. Dodanie Języka

```
CREATE PROCEDURE AddLanguage
    @LanguageName varchar(50)
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF EXISTS (SELECT 1 FROM Languages WHERE LanguageName = @LanguageName)
        BEGIN
            THROW 50001, 'Language with the provided name already exists.', 1;
        END


        INSERT INTO Languages (LanguageName)
        VALUES (@LanguageName);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

9. Dodanie połączenia między tłumaczem a językiem

```
CREATE PROCEDURE AddTranslatorLanguage
    @TranslatorID int,
    @LanguageID int
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Translator WHERE TranslatorID = @TranslatorID)
        BEGIN
            THROW 50001, 'Translator with the provided ID does not exist.', 1;
        END


        IF NOT EXISTS (SELECT 1 FROM Languages WHERE LanguageID = @LanguageID)
        BEGIN
            THROW 50002, 'Language with the provided ID does not exist.', 1;
        END


        IF EXISTS (SELECT 1 FROM Translator_details WHERE TranslatorID = @TranslatorID AND LanguageID = @LanguageID)
        BEGIN
            THROW 50003, 'Translator already has the specified language.', 1;
        END

        INSERT INTO Translator_details (TranslatorID, LanguageID)
        VALUES (@TranslatorID, @LanguageID);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

10. Dodanie przedmiotu

```
CREATE PROCEDURE AddSubject
    @LecturerID int,
    @SubjectName varchar(50),
    @SubjectDescription varchar(200),
    @Hours int,
    @Assessment varchar(30)
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY

        IF NOT EXISTS (SELECT 1 FROM Lecturers WHERE LecturerID = @LecturerID)
        BEGIN
            THROW 50001, 'Lecturer with the provided ID does not exist.', 1;
        END


        INSERT INTO Subjects (LecturerID, SubjectName, SubjectDescription, Hours, Assessment)
        VALUES (@LecturerID, @SubjectName, @SubjectDescription, @Hours, @Assessment);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

11. Dodanie Syllabusu

```
CREATE PROCEDURE AddSyllabus
    @SyllabusName varchar(50)
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY

        IF EXISTS (SELECT 1 FROM Syllabus WHERE SyllabusName = @SyllabusName)
        BEGIN
            THROW 50001, 'Syllabus with the provided name already exists.', 1;
        END


        INSERT INTO Syllabus (SyllabusName)
        VALUES (@SyllabusName);


        COMMIT;
    END TRY
    BEGIN CATCH

        ROLLBACK;

        THROW;
    END CATCH;
END;
```

12. Dodanie połączeń między Syllabusami a przedmiotami

```
CREATE PROCEDURE AddSyllabusDetails
    @SyllabusID int,
    @SubjectID int
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Syllabus WHERE SyllabusID = @SyllabusID)
        BEGIN
            THROW 50001, 'Syllabus with the provided ID does not exist.', 1;
        END

        IF NOT EXISTS (SELECT 1 FROM Subjects WHERE SubjectID = @SubjectID)
        BEGIN
            THROW 50002, 'Subject with the provided ID does not exist.', 1;
        END


        IF EXISTS (SELECT 1 FROM Syllabus_details WHERE SyllabusID = @SyllabusID AND SubjectID = @SubjectID)
        BEGIN
            THROW 50003, 'Subject is already associated with the specified syllabus.', 1;
        END

        INSERT INTO Syllabus_details (SyllabusID, SubjectID)
        VALUES (@SyllabusID, @SubjectID);
        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

13. Dodanie studiów

```
CREATE PROCEDURE AddStudies
    @SyllabusID int,
    @Major varchar(50),
    @StartDate datetime,
    @EndDate datetime,
    @PriceInAdvance money,
    @PriceWhole money,
    @Limit int
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Syllabus WHERE SyllabusID = @SyllabusID)
        BEGIN
            THROW 50001, 'Syllabus with the provided ID does not exist.', 1;
        END
        SET IDENTITY_INSERT Studies ON
        DECLARE @NewServiceID INT;
        SELECT @NewServiceID = ISNULL(MAX(ServiceID), -2) + 4 FROM Studies;

        INSERT INTO Services (ServiceID, PriceInAdvance, PriceWhole)
        VALUES (@NewServiceID, @PriceInAdvance, @PriceWhole);

        INSERT INTO Studies (ServiceID, SyllabusID, Major, StartDate, EndDate, PriceInAdvance, PriceWhole, Limit)
        VALUES (@NewServiceID, @SyllabusID, @Major, @StartDate, @EndDate, @PriceInAdvance, @PriceWhole, @Limit);

        SET IDENTITY_INSERT Studies OFF


        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

14. Dodanie wykładu

```
CREATE PROCEDURE AddLecture
    @LecturerID int,
    @TranslatorID int,
    @ServiceID int,
    @Type varchar(20),
    @Language varchar(50),
    @StartDate datetime,
    @EndDate datetime,
    @Limit int,
    @LinkNagranie varchar(50) = NULL
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Lecturers WHERE LecturerID = @LecturerID)
        BEGIN
            THROW 50001, 'Lecturer with the provided ID does not exist.', 1;
        END

        IF NOT EXISTS (SELECT 1 FROM Translator WHERE TranslatorID = @TranslatorID)
        BEGIN
            THROW 50002, 'Translator with the provided ID does not exist.', 1;
        END


        IF NOT EXISTS (SELECT 1 FROM Studies WHERE ServiceID = @ServiceID)
        BEGIN
            THROW 50003, 'Service with the provided ID does not exist.', 1;
        END

        IF NOT EXISTS (SELECT 1 FROM Languages WHERE LanguageName = @Language)
        BEGIN
            THROW 50004, 'provvided language doesnt exist.', 1;
        END
        Declare  @checkDates bit
        SELECT @checkDates = dbo.CheckLectureDates(@ServiceID, @StartDate, @EndDate)
        IF  @checkDates = 0
        BEGIN
            THROW 50005, 'Lecture dates do not correspond to study dates.', 1;
        END

        IF @Limit IS NOT NULL AND EXISTS (
            SELECT 1
            FROM Studies s
            INNER JOIN Lectures l ON s.ServiceID = l.ServiceID
            WHERE l.LectureID = @ServiceID
              AND @Limit < s.Limit
        )
        BEGIN
```

```
            THROW 50006, 'Limit should be greater than or equal to the limit of connected studies.', 1;
        END

        INSERT INTO Lectures (LecturerID, TranslatorID, ServiceID, Type, Language, StartDate, EndDate, Limit, LinkNagranie)
        VALUES (@LecturerID, @TranslatorID, @ServiceID, @Type, @Language, @StartDate, @EndDate, @Limit, @LinkNagranie);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

15. Dodanie pojedyńczych zajęć studyjnych

```
CREATE PROCEDURE AddSingleStudies
    @LectureID int,
    @Major varchar(50),
    @Type varchar(20),
    @Limit int = NULL,
    @PriceInAdvance money,
    @PriceWhole money
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Lectures WHERE LectureID = @LectureID)
        BEGIN
            THROW 50001, 'Lecture with the provided ID does not exist.', 1;
        END

        IF dbo.CheckLimitForSingleStudies(@LectureID, @Limit) = 0
        BEGIN
            THROW 50002, 'Invalid limit for Single_Studies.', 1;
        END

        SET IDENTITY_INSERT Single_Studies ON
        DECLARE @NewServiceID INT;
        SELECT @NewServiceID = ISNULL(MAX(ServiceID), 0) + 4 FROM Single_Studies;

        INSERT INTO Services (ServiceID, PriceInAdvance, PriceWhole)
        VALUES (@NewServiceID, @PriceInAdvance, @PriceWhole);

        INSERT INTO Single_Studies (ServiceID, LectureID, Major, Type, Limit, PriceInAdvance, PriceWhole)
        VALUES (@NewServiceID, @LectureID, @Major, @Type, @Limit, @PriceInAdvance, @PriceWhole);
        SET IDENTITY_INSERT Single_Studies OFF

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

16. Dodanie stażu

```
CREATE PROCEDURE AddInternship
    @ServiceID int,
    @InternshipName varchar(200),
    @InternshipDescription varchar(200),
    @StartDate datetime,
    @EndDate datetime
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY

        IF NOT EXISTS (SELECT 1 FROM Studies WHERE ServiceID = @ServiceID)
        BEGIN
            THROW 50001, 'Service with the provided ID does not exist.', 1;
        END

        IF NOT EXISTS (
            SELECT 1
            FROM Studies
            WHERE ServiceID = @ServiceID
              AND @StartDate >= StartDate
              AND @EndDate <= EndDate
        )
        BEGIN
            THROW 50002, 'Invalid StartDate or EndDate for the Internship.', 1;
        END

        INSERT INTO Internships (ServiceID, InternshipName, InternshipDescription, StartDate, EndDate)
        VALUES (@ServiceID, @InternshipName, @InternshipDescription, @StartDate, @EndDate);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;
        THROW;
    END CATCH;
END;
```

17. Dodanie przedmiotu do koszyka

```sql
CREATE PROCEDURE AddToCart
    @CustomerID INT,
    @ServiceID INT
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Services WHERE ServiceID = @ServiceID)
        BEGIN
            THROW 50001, 'Service with the provided ID does not exist.', 1;
        END

        DECLARE @CartOrderID INT;
        SELECT @CartOrderID = dbo.IsThereCart(@CustomerID);

        IF @CartOrderID IS NULL
        BEGIN
            INSERT INTO Orders (CustomerID, OrderDate, PaymentAssesed, PaymentPaid, PaymentWaived, DueDate, OrderStatus)
            VALUES (@CustomerID, GETDATE(), 0, 0, 0, DATEADD(DAY, 30, GETDATE()), 'InCart');


            SET @CartOrderID = SCOPE_IDENTITY();
        END
        IF @CartOrderID is not NULL
        BEGIN
            SET @CartOrderID = @CartOrderID;
        END
        INSERT INTO Order_details (ServiceID, OrderID, UnitPrice)
        VALUES (@ServiceID, @CartOrderID, 0);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

18. Usunięcie przedmiotu z koszyka

```sql
CREATE PROCEDURE DeleteFromCart
    @CustomerID INT,
    @ServiceID INT
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF NOT EXISTS (SELECT 1 FROM Services WHERE ServiceID = @ServiceID)
        BEGIN
            THROW 50001, 'Service with the provided ID does not exist.', 1;
        END

        DECLARE @CartOrderID INT;
        SET @CartOrderID = dbo.IsThereCart(@CustomerID);

        IF @CartOrderID IS NULL
        BEGIN
            ROLLBACK;
            RETURN;
        END

        DELETE FROM Order_details
        WHERE OrderID = @CartOrderID AND ServiceID = @ServiceID;

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

19. Kupienie zawartości koszyka

```sql
CREATE PROCEDURE BuyCart
    @CustomerID INT
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        DECLARE @CartOrderID INT;
        SET @CartOrderID = dbo.IsThereCart(@CustomerID);

        IF @CartOrderID IS NULL
        BEGIN
            RETURN;
        END


        UPDATE Orders
        SET OrderStatus = 'Ordered',
            OrderDate = GETDATE()
        WHERE OrderID = @CartOrderID;

        DECLARE @NewBalance MONEY;
        SELECT @NewBalance = Balance FROM Customers WHERE CustomerID = @CustomerID;
        DECLARE @NewPaymentPaid MONEY = 0;
        DECLARE @NewPaymentAssesed MONEY = 0;
        UPDATE od
        SET od.UnitPrice = s.PriceWhole,
            @NewPaymentAssesed = @NewPaymentAssesed + s.PriceWhole,
            @NewPaymentPaid = @NewPaymentPaid +
                CASE
                    WHEN s.PriceWhole > @NewBalance and @NewBalance>0 THEN @NewBalance
                    WHEN s.PriceWhole > @NewBalance and @NewBalance<0 THEN 0
                    ELSE s.PriceWhole
                END,
            @NewBalance = @NewBalance - s.PriceWhole
        FROM Order_details od
        INNER JOIN Services s ON od.ServiceID = s.ServiceID
        INNER JOIN Orders o ON od.OrderID = o.OrderID
        INNER JOIN Customers c ON o.CustomerID = c.CustomerID
        WHERE od.OrderID = @CartOrderID;


        UPDATE Orders
        SET PaymentPaid = @NewPaymentPaid,
            PaymentAssesed = @NewPaymentAssesed
        WHERE OrderID = @CartOrderID;

        UPDATE Customers
        SET Balance = @NewBalance
        WHERE CustomerID = @CustomerID;

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

20. Zaaktualizowanie stanu konta klienta

```
CREATE PROCEDURE UpdateBalance
    @CustomerID INT,
    @Amount MONEY
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        UPDATE Customers
        SET Balance = Balance + @Amount
        WHERE CustomerID = @CustomerID;

        DECLARE @RemainingAmount MONEY = @Amount;

        WHILE @RemainingAmount > 0
        BEGIN

            DECLARE @OldestOrderID INT;

            SELECT TOP 1 @OldestOrderID = o.OrderID
            FROM Orders o
            WHERE o.CustomerID = @CustomerID
              AND o.PaymentAssesed - o.PaymentPaid > 0
            ORDER BY o.OrderDate;


            IF @OldestOrderID IS NULL
                BREAK;

            DECLARE @RemainingOrderAmount MONEY;
            SELECT @RemainingOrderAmount = o.PaymentAssesed - o.PaymentPaid from orders o where orderID = @OldestOrderID

            DECLARE @PaymentThisIteration MONEY;
            SET @PaymentThisIteration = CASE
                WHEN @RemainingOrderAmount >= @RemainingAmount THEN @RemainingAmount
                ELSE @RemainingOrderAmount
            END;


            UPDATE o
            SET  o.PaymentPaid = o.PaymentPaid + @PaymentThisIteration
            FROM Orders o
            WHERE o.OrderID = @OldestOrderID;


            SET @RemainingAmount = @RemainingAmount - @PaymentThisIteration;
        END
        COMMIT;
    END TRY
    BEGIN CATCH

        ROLLBACK;

        THROW;
    END CATCH;
END;
```

21. "Kup teraz!"

```
CREATE PROCEDURE BuyNow
    @CustomerID INT,
    @ServiceID INT
AS
```

```
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        IF dbo.checklimit(@ServiceID) = 0
        BEGIN
            ROLLBACK;
            RETURN;
        END

        DECLARE @Balance MONEY;
        SELECT @Balance = Balance FROM Customers WHERE CustomerID = @CustomerID;

        DECLARE @PriceInAdvance MONEY, @PriceWhole MONEY;
        SELECT @PriceInAdvance = PriceInAdvance, @PriceWhole = PriceWhole FROM Services WHERE ServiceID = @ServiceID;

        IF @Balance < @PriceInAdvance
        BEGIN
            ROLLBACK;
            RETURN;
        END

    DECLARE @duedate DATETIME;
    SET @duedate = DATEADD(DAY, 5, GETDATE());

        INSERT INTO Orders (CustomerID, OrderDate, PaymentAssesed, PaymentPaid, PaymentWaived, DueDate, OrderStatus)
        VALUES (@CustomerID, GETDATE(), @PriceWhole,
                CASE WHEN @PriceWhole < @Balance THEN @PriceWhole ELSE @Balance END, 0,@duedate,
                'Ordered');


        DECLARE @NewOrderID INT;
        SET @NewOrderID = SCOPE_IDENTITY();

        UPDATE Customers
        SET Balance = Balance - CASE WHEN @PriceWhole < @Balance THEN @PriceWhole ELSE @Balance END
        WHERE CustomerID = @CustomerID;

        INSERT INTO Order_details (OrderID, ServiceID, UnitPrice)
        VALUES (@NewOrderID, @ServiceID, @PriceWhole);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

22. Zapisanie obecności użytkownika na wykładzie

```
CREATE PROCEDURE UpdateLectureAttendance
    @CustomerID INT,
    @LectureID INT,
    @AttendanceStatus VARCHAR(10)
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY

        IF dbo.LecturesAttendanceCheckIntegrity(@CustomerID, @LectureID) = 0
        BEGIN
            THROW 50001, 'Invalid attendance data.', 1;
        END


        INSERT INTO Lectures_attendance(CustomerID, LectureID, Attendance)
        VALUES (@CustomerID, @LectureID, @AttendanceStatus);

        COMMIT;
    END TRY
    BEGIN CATCH
        ROLLBACK;

        THROW;
    END CATCH;
END;
```

23. Wpisanie użytkownikowi zaliczenia stażu

```
CREATE PROCEDURE UpdateInternshipPassed
    @InternshipID INT,
    @CustomerID INT,
    @Passed NVARCHAR(3)
AS
BEGIN
    IF dbo.InternshipsIntegrity(@InternshipID, @CustomerID) = 0
    BEGIN
        THROW 50001, 'Integrity check failed. Record not found in Order_Details.', 1;
    END

    INSERT INTO Internships_passed (InternshipID, CustomerID, Passed)
    VALUES (@InternshipID, @CustomerID, @Passed);
END;
```

24. Wpisanie użytkownikowi zaliczenia z egzaminu

```
CREATE PROCEDURE UpdateExams
    @ServiceID INT,
    @CustomerID INT,
    @Grade float(1)
AS
BEGIN
    IF @ServiceID % 4 <> 2
    BEGIN
        THROW 50002, 'Invalid ServiceID for updating diploma.', 1;
    END
    IF NOT EXISTS (
        SELECT 1
        FROM Order_details od
        join orders o
        on od.OrderID = o.OrderID
        WHERE od.ServiceID = @ServiceID
          AND o.CustomerID = @CustomerID
    )
    BEGIN
        THROW 50001, 'No order record found for the specified service and customer.', 1;
    END

    INSERT INTO Exams (ServiceID, CustomerID, Grade)
    VALUES (@ServiceID, @CustomerID, @Grade);
END;
```

25. Przyznanie użytkownikowi dyplomu ukończenia studiów

```
CREATE PROCEDURE UpdateDiploma
    @ServiceID INT,
    @CustomerID INT,
    @Date DATETIME,
    @Title VARCHAR(255)
AS
BEGIN
    IF @ServiceID % 4 <> 2
    BEGIN
        THROW 50002, 'Invalid ServiceID for updating diploma.', 1;
    END

    IF NOT EXISTS (
        SELECT 1
        FROM Order_details od
        join orders o
        on o.orderid = od.orderid
        WHERE od.ServiceID = @ServiceID
          AND o.CustomerID = @CustomerID
    )
    BEGIN
        THROW 50001, 'No matching record in order_details found.', 1;
    END

    INSERT INTO Diplomas(ServiceID, CustomerID, Date, Title)
    VALUES (@ServiceID, @CustomerID, @Date, @Title);
END;
```

26. Zapisanie obecności użytkownika na zajęciach z kursu

```
CREATE PROCEDURE UpdateCoursesAttendance
    @ClassID INT,
    @CustomerID INT,
    @Attendance varchar(10)
AS
BEGIN
    Declare @ModuleID INT;
    SELECT @ModuleID = m.ModuleID from Courses_hist m
    where m.ClassID =  @ClassID

    IF dbo.CoursesIntegrity(@ClassID, @CustomerID)= 0
    BEGIN
        THROW 50001, 'Integrity check failed. Record not found in Order_Details.', 1;
    END
    INSERT INTO Courses_attendance(ClassID, CustomerID, ModuleID, Attendance)
    VALUES (@ClassID, @CustomerID,@ModuleID, @Attendance);
END;
```

27. Zapisanie obecności użytkownika na webinarze

```
CREATE PROCEDURE UpdateWebinarsAttendance
    @WebinarID  INT,
    @CustomerID INT,
    @Attendance varchar(10)
AS
BEGIN
    Declare @ServiceID INT;
    SELECT @ServiceID = w.serviceID from Webinars_hist w
    where w.WebinarID = @WebinarID
    IF NOT EXISTS (
        SELECT 1
        FROM Order_details od
        join orders o
        on o.orderid = od.orderid
        WHERE od.ServiceID = @ServiceID
          AND o.CustomerID = @CustomerID
    )
    BEGIN
        THROW 50001, 'No matching record in order_details found.', 1;
    END

    INSERT INTO Webinars_attendance(WebinarID, CustomerID, Attendance)
    VALUES(@WebinarID,@CustomerID,@Attendance)
END;
```

28. Odroczenie płatności klienta za usługę

```
CREATE PROCEDURE WaivePayment
    @OrderID INT,
    @Amount money
AS
BEGIN
    Declare @RealWaive money, @PaymentAssesed money, @PaymentPaid money, @CustomerID INT;
    SELECT @PaymentAssesed = PaymentAssesed from orders o
    where o.OrderID = @OrderID
    SELECT @PaymentPaid =  PaymentPaid from orders o
    where o.OrderID =  @OrderID
    Select @CustomerID = CustomerID from orders o
    where o.OrderID =  @OrderID
    IF @PaymentAssesed - @PaymentPaid -  @Amount > 0
    BEGIN
        SET @RealWaive = @Amount
    END
    IF @PaymentAssesed - @PaymentPaid - @Amount <= 0
    BEGIN
        SET @RealWaive = @PaymentAssesed - @PaymentPaid
    END
    UPDATE Customers
    SET Balance =  Balance + @RealWaive
    WHERE CustomerID =  @CustomerID

    UPDATE Orders
    SET PaymentWaived = @RealWaive
    Where OrderID = @OrderID

END;
```