

Bazy Danych: Projekt**Raport****Zespół 5: Furgała Tomasz, Łukasz Kluza, Mateusz Sacha****1. Administrator**

- Usuwanie webinaru, administrator może usunąć dostępne nagranie webinaru gdy uzna to za stosowne.
- Zarządzanie użytkownikami, administrator ma możliwość edycji kont innych użytkowników.
- Generowanie raportów, administrator generuje raporty zawierające aktualne statystyki.

2. Gość

- Założenie konta, użytkownik może założyć konto, które umożliwia mu korzystanie z systemu
- Przeglądanie kursów, użytkownik ma możliwość zapoznania się z aktualną ofertą kursów i szkoleń.

3. Zalogowany użytkownik

- Zapis na webinar, kurs lub studia, użytkownik może zapisać się na wybraną przez siebie usługę.
- Płatność za usługi, dokonuje opłaty by móc wziąć udział w webinarze, kursie lub studiach oraz wykupuje późniejszy dostęp do materiałów.
- Przeglądanie listy, możliwość przeglądania listy usług, na które dany użytkownik jest zapisany.
- Odbiera dyplom, użytkownik może odebrać dyplom, gdy zostanie on wystawiony przez administratora.

4. Koordynator

- Odrzucanie płatności, dyrektor szkoły ma możliwość odroczenia płatności na określony czas.
- Wgląd do kursów oraz webinarów, dyrektor ma możliwość wglądu do danych o kursach i webinarach prowadzonych przez jego pracowników
- Zatwierdzanie programu studiów, dyrektor ma dostęp do ułożonych przez pracowników sylabusów przed opublikowaniem ich oraz możliwość zatwierdzania i wprowadzania poprawek do nich
- Zatwierdzanie nowych kursów i webinarów, dyrektor zatwierdza bądź odrzuca każdy nowy kurs, webinar, stworzony przez jego pracowników

5. Menadżer

- Zarządzaniem limitem miejsc, menadżer ustala maksymalną liczbę osób która może uczestniczyć w danym webinarze, szkoleniu
- Wystawianie dyplomów, menadżer wystawia dyplom użytkownikowi, który spełnił wszystkie regulaminowe przesłanki co to do tego.
- Zarządzanie ofertą, menadżer ma możliwość edycji obecnej oferty jak i możliwość dodawania nowych kursów, szkoleń.

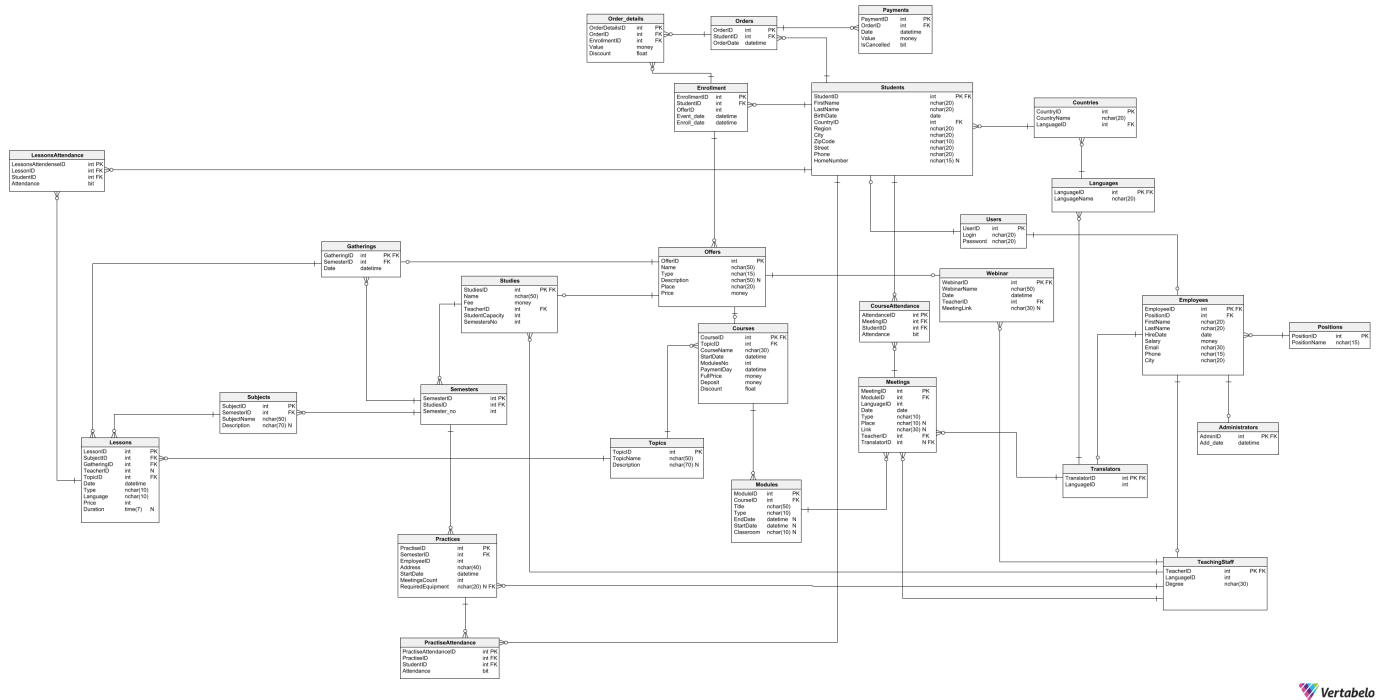
6. Prowadzący/Wykładowca

- Dostęp do swoich webinarów, każdy prowadzący ma nielimitowany czasowo dostęp do nagrań wszystkich swoich webinarów
- Możliwość edycji modułów kursu, prowadzący mają możliwość wprowadzania poprawek oraz modyfikacji materiałów znajdujących się na prowadzonych przez siebie kursach
- Dostęp do systemu ocen i obecności, prowadzący ma dostęp do systemu, w którym może swobodnie zapisywać oraz zmieniać oceny i obecności uczestników jego kursów
- Ułożenie sylabusu, prowadzący musi ułożyć sylabus do każdego z prowadzonych przez siebie przedmiotów w określonym terminie przed rozpoczęciem studiów

7. System

- Generowanie linków do płatności, system sam, automatycznie generuje link do płatności, gdy użytkownik chce opłacić zamówienie.
- Wysyłanie powiadomień, uczestnik spotkania dostaje powiadomienia, gdy rozpoczyna się spotkanie, w którym ma uczestniczyć.
- Powiadomienie o zapłacie, użytkownik dostaje przypomnienie o konieczności zapłaty tydzień przed ostatecznym terminem dokonania płatności, dotyczy to także zaliczek.

Diagram bazy danych:



Vertabelo

Tabele:

1. Enrollment: Tabela przechowuje podstawowe dane o wszystkich zapisach. Zawiera informacje o osobie (StudentID) dokonującej zapisu na wydarzenie (OfferID) oraz datę zapisu (enroll_date).

```
CREATE TABLE [dbo].[Enrollment](
    [EnrollmentID] [int] NOT NULL,
    [StudentID] [int] NOT NULL,
    [OfferID] [int] NOT NULL,
    [Enroll_date] [datetime] NOT NULL,
    CONSTRAINT [PK_Enrollment] PRIMARY KEY CLUSTERED
(
    [EnrollmentID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Enrollment] WITH CHECK ADD CONSTRAINT [FK_Enrollment_Offers] FOREIGN KEY([OfferID])
REFERENCES [dbo].[Offers] ([OfferID])

ALTER TABLE [dbo].[Enrollment] CHECK CONSTRAINT [FK_Enrollment_Offers]

ALTER TABLE [dbo].[Enrollment] WITH CHECK ADD CONSTRAINT [FK_Enrollment_Students] FOREIGN KEY([StudentID])
REFERENCES [dbo].[Students] ([StudentID])

ALTER TABLE [dbo].[Enrollment] CHECK CONSTRAINT [FK_Enrollment_Students]
```

2. Offers: Tabela zawiera informacje o wszystkich wydarzeniach jakie są oferowane. Zawiera identyfikator wydarzenia (OfferID), nazwę, opis oraz typ (Name, Description, Type), typ określa czy jest to webinar, kurs, studia czy pojedyncza lekcja. Dodatkowo miejsce wydarzenia oraz jego całkowity koszt (Place, Price).

```
CREATE TABLE [dbo].[Offers](
    [OfferID] [int] NOT NULL,
    [Name] [nvarchar](50) NOT NULL,
    [Type] [nvarchar](15) NOT NULL,
    [Description] [nvarchar](50) NULL,
    [Place] [nvarchar](20) NOT NULL,
    [Price] [money] NOT NULL,
```

```

CONSTRAINT [PK_Offers] PRIMARY KEY CLUSTERED
(
    [OfferID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Offers] WITH CHECK ADD CONSTRAINT [CHK_Name_Length] CHECK ((len([Name])>=(5)))

ALTER TABLE [dbo].[Offers] CHECK CONSTRAINT [CHK_Name_Length]

ALTER TABLE [dbo].[Offers] WITH CHECK ADD CONSTRAINT [CHK_Price_NonNegative] CHECK (([Price]>=(0)))

ALTER TABLE [dbo].[Offers] CHECK CONSTRAINT [CHK_Price_NonNegative]

ALTER TABLE [dbo].[Offers] WITH CHECK ADD CONSTRAINT [CHK_Type_Values] CHECK ((([Type]='Gathering' OR
[Type]='Lesson' OR [Type]='Studies' OR [Type]='Courses' OR [Type]='Webinar'))

ALTER TABLE [dbo].[Offers] CHECK CONSTRAINT [CHK_Type_Values]

```

3. Webinar: Tabela zawiera informacje o webinarach, zawiera klucz główny (WebinarID), nazwę oraz datę rozpoczęcia (WebinarName, Date), informacje o osobie, która to prowadzi (TeacherID) i link do webinaru (MeetingLink).

```

CREATE TABLE [dbo].[Webinar](
    [WebinarID] [int] NOT NULL,
    [WebinarName] [nchar](50) NOT NULL,
    [Date] [datetime] NOT NULL,
    [TeacherID] [int] NOT NULL,
    [MeetingLink] [nchar](30) NULL,
    CONSTRAINT [PK_Webinar] PRIMARY KEY CLUSTERED
(
    [WebinarID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Webinar] WITH CHECK ADD CONSTRAINT [FK_Webinar_Offers] FOREIGN KEY([WebinarID])
REFERENCES [dbo].[Offers] ([OfferID])

ALTER TABLE [dbo].[Webinar] CHECK CONSTRAINT [FK_Webinar_Offers]

ALTER TABLE [dbo].[Webinar] WITH CHECK ADD CONSTRAINT [FK_Webinar_TeachingStaff] FOREIGN KEY([TeacherID])
REFERENCES [dbo].[TeachingStaff] ([TeacherID])

ALTER TABLE [dbo].[Webinar] CHECK CONSTRAINT [FK_Webinar_TeachingStaff]

ALTER TABLE [dbo].[Webinar] WITH CHECK ADD CONSTRAINT [CHK_Webinar_WebinarName_Length] CHECK
((len([WebinarName])>(5)))

ALTER TABLE [dbo].[Webinar] CHECK CONSTRAINT [CHK_Webinar_WebinarName_Length]

```

4. Studies: Tabela zawiera informacje o studiach, zawiera klucz główny (StudiesID), kierunku studiów oraz opłacie za nie (Name, Fee), koorynatorze, maksymalnej ilości studentów na danym studium (TeacherID, StudentCapacity).

```

CREATE TABLE [dbo].[Studies](
    [StudiesID] [int] NOT NULL,
    [Name] [nchar](50) NOT NULL,
    [Fee] [money] NOT NULL,
    [TeacherID] [int] NOT NULL,
    [StudentCapacity] [int] NOT NULL,
    CONSTRAINT [PK_Studies_1] PRIMARY KEY CLUSTERED
(
    [StudiesID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,

```

```

ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Studies] WITH CHECK ADD CONSTRAINT [FK_Studies_Offers] FOREIGN KEY([StudiesID])
REFERENCES [dbo].[Offers] ([OfferID])

ALTER TABLE [dbo].[Studies] CHECK CONSTRAINT [FK_Studies_Offers]

ALTER TABLE [dbo].[Studies] WITH CHECK ADD CONSTRAINT [FK_Studies_TeachingStaff] FOREIGN KEY([TeacherID])
REFERENCES [dbo].[TeachingStaff] ([TeacherID])

ALTER TABLE [dbo].[Studies] CHECK CONSTRAINT [FK_Studies_TeachingStaff]

ALTER TABLE [dbo].[Studies] WITH CHECK ADD CONSTRAINT [CHK_Fee_NonNegative] CHECK (([Fee]>=(0)))

ALTER TABLE [dbo].[Studies] CHECK CONSTRAINT [CHK_Fee_NonNegative]

ALTER TABLE [dbo].[Studies] WITH CHECK ADD CONSTRAINT [CHK_StudentCapacity_Minimum] CHECK
(([StudentCapacity]>=(10)))

ALTER TABLE [dbo].[Studies] CHECK CONSTRAINT [CHK_StudentCapacity_Minimum]

ALTER TABLE [dbo].[Studies] WITH CHECK ADD CONSTRAINT [CHK_Studies_Name_Length] CHECK ((len([Name])>(5)))

ALTER TABLE [dbo].[Studies] CHECK CONSTRAINT [CHK_Studies_Name_Length]

```

5. Courses: Tabela zawiera spis wszystkich kursów z kluczem głównym (CourseID), posiada informację o temacie kursu oraz jego nazwie (TopicID, CourseName), a także dacie rozpoczęcia, ilości modułów z których kurs się składa i dacie zapłaty (StartDate, ModulesNo, PaymentDay), całkowitej kwocie jaką należy za kurs zapłacić, kwocie zaliczki oraz zniżce (FullPrice, Deposit, Discount).

```

CREATE TABLE [dbo].[Courses](
    [CourseID] [int] NOT NULL,
    [TopicID] [int] NOT NULL,
    [CourseName] [nvarchar](30) NOT NULL,
    [StartDate] [datetime] NOT NULL,
    [ModulesNo] [int] NOT NULL,
    [PaymentDay] [datetime] NOT NULL,
    [FullPrice] [money] NOT NULL,
    [Deposit] [money] NOT NULL,
    [Discount] [float] NOT NULL,
    CONSTRAINT [PK_Courses] PRIMARY KEY CLUSTERED
(
    [CourseID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [FK_Courses_Offers] FOREIGN KEY([CourseID])
REFERENCES [dbo].[Offers] ([OfferID])

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [FK_Courses_Offers]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [FK_Courses_Topics] FOREIGN KEY([TopicID])
REFERENCES [dbo].[Topics] ([TopicID])

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [FK_Courses_Topics]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [CHK_Courses_CourseName_Length] CHECK
((len([CourseName])>(5)))

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [CHK_Courses_CourseName_Length]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [CHK_Deposit_Range] CHECK ((([Deposit]>=(0) AND
[Deposit]<=[FullPrice]))

```

```

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [CHK_Deposit_Range]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [CHK_Discount_Range] CHECK (([Discount]>=(0) AND [Discount]<=(1)))

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [CHK_Discount_Range]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [CHK_FullPrice_NonNegative] CHECK (([FullPrice]>=(0)))

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [CHK_FullPrice_NonNegative]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [CHK_ModulesNo_Positive] CHECK (([ModulesNo]>(0)))

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [CHK_ModulesNo_Positive]

ALTER TABLE [dbo].[Courses] WITH CHECK ADD CONSTRAINT [CHK_PaymentDay_BeforeStart] CHECK (([PaymentDay]<=dateadd(day,-3),[StartDate])))

ALTER TABLE [dbo].[Courses] CHECK CONSTRAINT [CHK_PaymentDay_BeforeStart]

```

6. Gatherings: Tabela zawiera informacje o zjazdach, posiada klucz główny (GatheringID) i semestr, w ramach którego odbywa się dany zjazd oraz datę w której zjazd się odbywa (SemesterID, Date).

```

CREATE TABLE [dbo].[Gatherings](
    [GatheringID] [int] NOT NULL,
    [Semester] [int] NOT NULL,
    [Date] [datetime] NOT NULL,
    CONSTRAINT [PK_Gatherings] PRIMARY KEY CLUSTERED
(
    [GatheringID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Gatherings] WITH CHECK ADD CONSTRAINT [FK_Gatherings_Offers] FOREIGN KEY([GatheringID])
REFERENCES [dbo].[Offers] ([OfferID])

ALTER TABLE [dbo].[Gatherings] CHECK CONSTRAINT [FK_Gatherings_Offers]

ALTER TABLE [dbo].[Gatherings] WITH CHECK ADD CONSTRAINT [FK_Gatherings_Semesters] FOREIGN KEY([Semester])
REFERENCES [dbo].[Semesters] ([SemesterID])

ALTER TABLE [dbo].[Gatherings] CHECK CONSTRAINT [FK_Gatherings_Semesters]

```

7. Semesters: W tabeli znajdują się informacje o wszystkich semestrach na wszystkich kierunkach studiów, klucz główny to (SemesterID), zawiera też informacje o kierunku studiów na którym semestr się znajduje, numerze semestru (StudiesID, Semester_no).

```

CREATE TABLE [dbo].[Semesters](
    [SemesterID] [int] NOT NULL,
    [StudiesID] [int] NOT NULL,
    [Semester_no] [int] NOT NULL,
    CONSTRAINT [PK_Semesters] PRIMARY KEY CLUSTERED
(
    [SemesterID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Semesters] WITH CHECK ADD CONSTRAINT [FK_Semesters_Studies] FOREIGN KEY([StudiesID])
REFERENCES [dbo].[Studies] ([StudiesID])

ALTER TABLE [dbo].[Semesters] CHECK CONSTRAINT [FK_Semesters_Studies]

```

```
ALTER TABLE [dbo].[Semesters] WITH CHECK ADD CONSTRAINT [CHK_Semester_no_Positive] CHECK (([Semester_no]>(0)))

ALTER TABLE [dbo].[Semesters] CHECK CONSTRAINT [CHK_Semester_no_Positive]
```

8. Practices: Tabela zawiera dane o praktykach, posiada klucz główny (PractiseID), semestrze na którym się odbywają i pracowniku, który je prowadzi (SemesterID, EmployeeID), posiada informacje o miejscu, w którym praktyki się odbywają, dacie rozpoczęcia, ilości spotkań oraz potrzebnym wyposażeniu (Address, StartDate, MeetingsCount, RequiredEquipment).

```
CREATE TABLE [dbo].[Practices](
    [PractiseID] [int] NOT NULL,
    [SemesterID] [int] NOT NULL,
    [EmployeeID] [int] NOT NULL,
    [Address] [nchar](40) NOT NULL,
    [StartDate] [datetime] NOT NULL,
    [MeetingsCount] [int] NOT NULL,
    [RequiredEquipment] [nchar](20) NULL,
    CONSTRAINT [PK_Practices] PRIMARY KEY CLUSTERED
(
    [PractiseID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Practices] WITH CHECK ADD CONSTRAINT [FK_Practices_Semesters] FOREIGN KEY([SemesterID])
REFERENCES [dbo].[Semesters] ([SemesterID])

ALTER TABLE [dbo].[Practices] CHECK CONSTRAINT [FK_Practices_Semesters]

ALTER TABLE [dbo].[Practices] WITH CHECK ADD CONSTRAINT [FK_Practices_TeachingStaff] FOREIGN
KEY([EmployeeID])
REFERENCES [dbo].[TeachingStaff] ([TeacherID])

ALTER TABLE [dbo].[Practices] CHECK CONSTRAINT [FK_Practices_TeachingStaff]

ALTER TABLE [dbo].[Practices] WITH CHECK ADD CONSTRAINT [CHK_MeetingsCount_Positive] CHECK
(([MeetingsCount]>(0)))

ALTER TABLE [dbo].[Practices] CHECK CONSTRAINT [CHK_MeetingsCount_Positive]
```

9. PractiseAttendance: Tabela posiada informacje o obecności studentów na praktykach, posiada klucz główny (PractiseAttendanceID), dla każdego studenta przypisuje czy był obecny na danych praktykach, na które jest zapisany (PractiseID, StudentID, Attendance).

```
CREATE TABLE [dbo].[PractiseAttendance](
    [PractiseAttendanceID] [int] NOT NULL,
    [PractiseID] [int] NOT NULL,
    [StudentID] [int] NOT NULL,
    [Attendance] [bit] NOT NULL,
    CONSTRAINT [PK_PractiseAttendance] PRIMARY KEY CLUSTERED
(
    [PractiseAttendanceID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[PractiseAttendance] WITH CHECK ADD CONSTRAINT [FK_PractiseAttendance_Lessons] FOREIGN
KEY([StudentID])
REFERENCES [dbo].[Lessons] ([LessonID])

ALTER TABLE [dbo].[PractiseAttendance] CHECK CONSTRAINT [FK_PractiseAttendance_Lessons]

ALTER TABLE [dbo].[PractiseAttendance] WITH CHECK ADD CONSTRAINT [FK_PractiseAttendance_Practices] FOREIGN
KEY([PractiseID])
REFERENCES [dbo].[Practices] ([PractiseID])
```

```

ALTER TABLE [dbo].[PractiseAttendance] CHECK CONSTRAINT [FK_PractiseAttendance_Practices]

ALTER TABLE [dbo].[PractiseAttendance] WITH CHECK ADD CONSTRAINT [FK_PractiseAttendance_Students] FOREIGN
KEY([StudentID])
REFERENCES [dbo].[Students] ([StudentID])

ALTER TABLE [dbo].[PractiseAttendance] CHECK CONSTRAINT [FK_PractiseAttendance_Students]

```

10. Subjects: Tabela zawiera informacje o przedmiotach występujących w semestrach z kluczem głównym (SubjectID), przypisuje przedmiot do określonego semestru, posiada nazwę przedmiotu oraz jego opis (SemesterID, SubjectName, Description).

```

CREATE TABLE [dbo].[Subjects](
    [SubjectID] [int] NOT NULL,
    [SemesterID] [int] NOT NULL,
    [SubjectName] [nchar](50) NOT NULL,
    [Description] [nchar](70) NULL,
    CONSTRAINT [PK_Subjects] PRIMARY KEY CLUSTERED
(
    [SubjectID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Subjects] WITH CHECK ADD CONSTRAINT [FK_Subjects_Semesters] FOREIGN KEY([SemesterID])
REFERENCES [dbo].[Semesters] ([SemesterID])

ALTER TABLE [dbo].[Subjects] CHECK CONSTRAINT [FK_Subjects_Semesters]

ALTER TABLE [dbo].[Subjects] WITH CHECK ADD CONSTRAINT [CHK_Subjects_SubjectName_Length] CHECK
((len([SubjectName])>(5)))

ALTER TABLE [dbo].[Subjects] CHECK CONSTRAINT [CHK_Subjects_SubjectName_Length]

```

11. Lessons: Tabela zawiera informacje o lekcjach zarówno tych na studiach, oraz tych możliwych do kupienia pojedynczo, posiada klucz główny (LessonID), przedmiot i zjazd do którego jest przypisana dana lekcja, oraz nauczyciela który ją prowadzi (SubjectID, GatheringID, Teacher) zawiera temat, datę, typ, język prowadzenia, cenę i czas trwania (TopicID, Date, Type, Language, Price, Duration).

```

CREATE TABLE [dbo].[Lessons](
    [LessonID] [int] NOT NULL,
    [SubjectID] [int] NOT NULL,
    [GatheringID] [int] NOT NULL,
    [Teacher] [int] NULL,
    [TopicID] [int] NOT NULL,
    [Date] [datetime] NOT NULL,
    [Type] [nchar](10) NOT NULL,
    [Language] [nchar](10) NOT NULL,
    [Price] [int] NOT NULL,
    [Duration] [time](7) NULL,
    CONSTRAINT [PK_Lessons] PRIMARY KEY CLUSTERED
(
    [LessonID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Lessons] WITH CHECK ADD CONSTRAINT [FK_Lessons_Gatherings] FOREIGN KEY([GatheringID])
REFERENCES [dbo].[Gatherings] ([GatheringID])

ALTER TABLE [dbo].[Lessons] CHECK CONSTRAINT [FK_Lessons_Gatherings]

ALTER TABLE [dbo].[Lessons] WITH CHECK ADD CONSTRAINT [FK_Lessons_Subjects] FOREIGN KEY([SubjectID])
REFERENCES [dbo].[Subjects] ([SubjectID])

```

```

ALTER TABLE [dbo].[Lessons] CHECK CONSTRAINT [FK_Lessons_Subjects]

ALTER TABLE [dbo].[Lessons] WITH CHECK ADD CONSTRAINT [FK_Lessons_Topics] FOREIGN KEY([TopicID])
REFERENCES [dbo].[Topics] ([TopicID])

ALTER TABLE [dbo].[Lessons] CHECK CONSTRAINT [FK_Lessons_Topics]

ALTER TABLE [dbo].[Lessons] WITH CHECK ADD CONSTRAINT [CHK_Lessons_Type] CHECK ((([Type]='online' OR
[Type]='hybrid' OR [Type]='stationary'))

ALTER TABLE [dbo].[Lessons] CHECK CONSTRAINT [CHK_Lessons_Type]

```

12. LessonsAttendance: Tabela posiada informacje o obecności studentów na lekcjach, posiada klucz główny (LessonsAttendenceID), dla każdego studenta przypisuje czy był obecny na danej lekcji, na którą jest zapisany (LessonID, StudentID, Attendance).

```

CREATE TABLE [dbo].[LessonsAttendance](
    [LessonsAttendenceID] [int] NOT NULL,
    [LessonID] [int] NOT NULL,
    [StudentID] [int] NOT NULL,
    [Attendance] [bit] NOT NULL,
    CONSTRAINT [PK_LessonsAttendance] PRIMARY KEY CLUSTERED
(
    [LessonsAttendenceID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[LessonsAttendance] WITH CHECK ADD CONSTRAINT [FK_LessonsAttendance_Lessons] FOREIGN
KEY([LessonID])
REFERENCES [dbo].[Lessons] ([LessonID])

ALTER TABLE [dbo].[LessonsAttendance] CHECK CONSTRAINT [FK_LessonsAttendance_Lessons]

ALTER TABLE [dbo].[LessonsAttendance] WITH CHECK ADD CONSTRAINT [FK_LessonsAttendance_Students] FOREIGN
KEY([StudentID])
REFERENCES [dbo].[Students] ([StudentID])

ALTER TABLE [dbo].[LessonsAttendance] CHECK CONSTRAINT [FK_LessonsAttendance_Students]

ALTER TABLE [dbo].[LessonsAttendance] WITH CHECK ADD CONSTRAINT [FK_LessonsAttendance_Students1] FOREIGN
KEY([StudentID])
REFERENCES [dbo].[Students] ([StudentID])

ALTER TABLE [dbo].[LessonsAttendance] CHECK CONSTRAINT [FK_LessonsAttendance_Students1]

```

13. Topics: Tabela posiada dane o tematach kursów, bądź lekcji, posiada klucz główny (TopicID) oraz nazwę tematu i jego opis (TopicName, Description).

```

CREATE TABLE [dbo].[Topics](
    [TopicID] [int] NOT NULL,
    [TopicName] [nchar](50) NOT NULL,
    [Description] [nchar](70) NULL,
    CONSTRAINT [PK_Topics] PRIMARY KEY CLUSTERED
(
    [TopicID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Topics] WITH CHECK ADD CONSTRAINT [CHK_Topics_TopicName_Length] CHECK
((len([TopicName])>(5)))

ALTER TABLE [dbo].[Topics] CHECK CONSTRAINT [CHK_Topics_TopicName_Length]

```


14. Modules: Tabela zawiera wszystkie moduły, znajdujące się kursach, posiada klucz główny (ModuleID), informacje o kursie, do którego moduł należy oraz jego tytule i typie (CourseID, Title, Type), a także dacie zakończenia i rozpoczęcia oraz klasie, w której się odbywa (EndDate, StartDate, Classroom).

```
CREATE TABLE [dbo].[Modules](
    [ModuleID] [int] NOT NULL,
    [CourseID] [int] NOT NULL,
    [Title] [nchar](50) NOT NULL,
    [Type] [nchar](10) NOT NULL,
    [EndDate] [datetime] NULL,
    [StartDate] [datetime] NULL,
    [Classroom] [nchar](10) NULL,
    CONSTRAINT [PK_Modules] PRIMARY KEY CLUSTERED
(
    [ModuleID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Modules] WITH CHECK ADD CONSTRAINT [FK_Modules_Courses] FOREIGN KEY([CourseID])
REFERENCES [dbo].[Courses] ([CourseID])

ALTER TABLE [dbo].[Modules] CHECK CONSTRAINT [FK_Modules_Courses]

ALTER TABLE [dbo].[Modules] WITH CHECK ADD CONSTRAINT [CHK_Modules_Date_Order] CHECK (([EndDate]>
[StartDate]))

ALTER TABLE [dbo].[Modules] CHECK CONSTRAINT [CHK_Modules_Date_Order]

ALTER TABLE [dbo].[Modules] WITH CHECK ADD CONSTRAINT [CHK_Modules_Title_Length] CHECK ((len([Title])>
(5)))

ALTER TABLE [dbo].[Modules] CHECK CONSTRAINT [CHK_Modules_Title_Length]

ALTER TABLE [dbo].[Modules] WITH CHECK ADD CONSTRAINT [CHK_Modules_Type_Values] CHECK (([Type]='online'
OR [Type]='hybrid' OR [Type]='stationary'))

ALTER TABLE [dbo].[Modules] CHECK CONSTRAINT [CHK_Modules_Type_Values]
```

15. Meetings: Tabela zawiera dane o spotkaniach odbywających się w ramach konkretnego modułu, posiada klucz główny (MeetingID), przypisuje spotkanie do modułu, zawiera datę odbycia się i język prowadzenia oraz typ (ModuleID, Date, LanguageID, Type), miejsce odbywania się modułu, link do ewentualnego spotkania online, nauczyciela prowadzącego i tłumacza (Place, Link, TeacherID, TranslatorID).

```
CREATE TABLE [dbo].[Meetings](
    [MeetingID] [int] NOT NULL,
    [ModuleID] [int] NOT NULL,
    [LanguageID] [int] NOT NULL,
    [Date] [date] NOT NULL,
    [Type] [nchar](10) NOT NULL,
    [Place] [nchar](10) NULL,
    [Link] [nchar](30) NULL,
    [TeacherID] [int] NOT NULL,
    [TranslatorID] [int] NULL,
    CONSTRAINT [PK_Meetings] PRIMARY KEY CLUSTERED
(
    [MeetingID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Meetings] WITH CHECK ADD CONSTRAINT [FK_Meetings_Modules] FOREIGN KEY([ModuleID])
REFERENCES [dbo].[Modules] ([ModuleID])

ALTER TABLE [dbo].[Meetings] CHECK CONSTRAINT [FK_Meetings_Modules]
```

```

ALTER TABLE [dbo].[Meetings] WITH CHECK ADD CONSTRAINT [FK_Meetings_TeachingStaff] FOREIGN
KEY([TeacherID])
REFERENCES [dbo].[TeachingStaff] ([TeacherID])

ALTER TABLE [dbo].[Meetings] CHECK CONSTRAINT [FK_Meetings_TeachingStaff]

ALTER TABLE [dbo].[Meetings] WITH CHECK ADD CONSTRAINT [FK_Meetings_Translators] FOREIGN
KEY([TranslatorID])
REFERENCES [dbo].[Translators] ([TranslatorID])

ALTER TABLE [dbo].[Meetings] CHECK CONSTRAINT [FK_Meetings_Translators]

ALTER TABLE [dbo].[Meetings] WITH CHECK ADD CONSTRAINT [CHK_Meetings_Type_Values] CHECK (([Type]='online'
OR [Type]='hybrid' OR [Type]='stationary'))

ALTER TABLE [dbo].[Meetings] CHECK CONSTRAINT [CHK_Meetings_Type_Values]

```

16. CourseAttendance: Tabela posiada informacje o obecności studentów na spotkaniach w danym module kursu, posiada klucz główny (AttendanceID), dla każdego studenta przypisuje czy był obecny na danym spotkaniu, na które jest zapisany (MeetingID, StudentID, Attendance).

```

CREATE TABLE [dbo].[CourseAttendance](
    [AttendanceID] [int] NOT NULL,
    [MeetingID] [int] NOT NULL,
    [StudentID] [int] NOT NULL,
    [Attendance] [bit] NOT NULL,
    CONSTRAINT [PK_Attendance] PRIMARY KEY CLUSTERED
(
    [AttendanceID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[CourseAttendance] WITH CHECK ADD CONSTRAINT [FK_Attendance_Meetings] FOREIGN
KEY([MeetingID])
REFERENCES [dbo].[Meetings] ([MeetingID])

ALTER TABLE [dbo].[CourseAttendance] CHECK CONSTRAINT [FK_Attendance_Meetings]

ALTER TABLE [dbo].[CourseAttendance] WITH CHECK ADD CONSTRAINT [FK_Attendance_Students] FOREIGN
KEY([StudentID])
REFERENCES [dbo].[Students] ([StudentID])

ALTER TABLE [dbo].[CourseAttendance] CHECK CONSTRAINT [FK_Attendance_Students]

```

17. Orders: Tabela przypisuje zamówienie do określonego studenta, posiada klucz główny (OrderID), studenta, do którego należy zamówienie, datę jego złożenia (StudentID, OrderDate).

```

CREATE TABLE [dbo].[Orders](
    [OrderID] [int] NOT NULL,
    [StudentID] [int] NOT NULL,
    [OrderDate] [datetime] NOT NULL,
    CONSTRAINT [PK_Cart] PRIMARY KEY CLUSTERED
(
    [OrderID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Orders] WITH CHECK ADD CONSTRAINT [FK_Orders_Students] FOREIGN KEY([StudentID])
REFERENCES [dbo].[Students] ([StudentID])

ALTER TABLE [dbo].[Orders] CHECK CONSTRAINT [FK_Orders_Students]

```

18. Order_Details: Tabela zawiera szczegółowe informacje o konkretnym zamówieniu, posiada klucz główny (OrderDetailsID), przypisuje zamówienie do złożonego zamówienia, który się w nim znajduje (OrderID, EnrollmentID), wartość produktu i zniżkę(Value, Discount), zniżka jest wartoscia typu float z zakresu od 0 do 1.

```
CREATE TABLE [dbo].[Order_details](
    [OrderDetailsID] [int] NOT NULL,
    [OrderID] [int] NOT NULL,
    [EnrollmentID] [int] NOT NULL,
    [Value] [money] NOT NULL,
    [Discount] [float] NOT NULL,
    CONSTRAINT [PK_Cart_details] PRIMARY KEY CLUSTERED
(
    [OrderDetailsID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Order_details] WITH CHECK ADD CONSTRAINT [FK_Cart_details_Cart] FOREIGN KEY([OrderID])
REFERENCES [dbo].[Orders] ([OrderID])

ALTER TABLE [dbo].[Order_details] CHECK CONSTRAINT [FK_Cart_details_Cart]

ALTER TABLE [dbo].[Order_details] WITH CHECK ADD CONSTRAINT [FK_Order_details_Enrollment] FOREIGN
KEY([EnrollmentID])
REFERENCES [dbo].[Enrollment] ([EnrollmentID])

ALTER TABLE [dbo].[Order_details] CHECK CONSTRAINT [FK_Order_details_Enrollment]

ALTER TABLE [dbo].[Order_details] WITH CHECK ADD CONSTRAINT [CHK_OrderDetails_Discount_Range] CHECK
(([Discount]>=(0) AND [Discount]<=(1)))

ALTER TABLE [dbo].[Order_details] CHECK CONSTRAINT [CHK_OrderDetails_Discount_Range]

ALTER TABLE [dbo].[Order_details] WITH CHECK ADD CONSTRAINT [CHK_OrderDetails_Value_NonNegative] CHECK
(([Value]>=(0)))

ALTER TABLE [dbo].[Order_details] CHECK CONSTRAINT [CHK_OrderDetails_Value_NonNegative]
```

19. Payments: Tabela zawiera dane o płatnościach, posiada klucz główny (PaymentID), łączy płatność z określonym zamówieniem(OrderID), zawiera datę, wartość oraz status płatności (Date, Value, IsCancelled), status jest typu bit.

```
CREATE TABLE [dbo].[Payments](
    [PaymentID] [int] NOT NULL,
    [OrderID] [int] NOT NULL,
    [Date] [datetime] NOT NULL,
    [Value] [money] NOT NULL,
    [IsCancelled] [bit] NOT NULL,
    CONSTRAINT [PK_Payments] PRIMARY KEY CLUSTERED
(
    [PaymentID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Payments] WITH CHECK ADD CONSTRAINT [FK_Payments_Cart] FOREIGN KEY([OrderID])
REFERENCES [dbo].[Orders] ([OrderID])

ALTER TABLE [dbo].[Payments] CHECK CONSTRAINT [FK_Payments_Cart]

ALTER TABLE [dbo].[Payments] WITH CHECK ADD CONSTRAINT [CHK_Payments_Value_Positive] CHECK (([Value]>
(0)))

ALTER TABLE [dbo].[Payments] CHECK CONSTRAINT [CHK_Payments_Value_Positive]
```

20. Users: Tabela zawiera wszystkich użytkowników z całej bazy danych, posiada klucz główny (UserID), do tego dla każdego użytkownika przypisuje login i hasło (Login, Password).

```
CREATE TABLE [dbo].[Users](
    [UserID] [int] NOT NULL,
    [Login] [nchar](20) NOT NULL,
    [Password] [nchar](20) NOT NULL,
    CONSTRAINT [PK_Users] PRIMARY KEY CLUSTERED
(
    [UserID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY],
    CONSTRAINT [UQ_Users_Login] UNIQUE NONCLUSTERED
(
    [Login] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Users] WITH CHECK ADD CONSTRAINT [CHK_Users_Login_Length] CHECK ((len([Login])>=(5)))

ALTER TABLE [dbo].[Users] CHECK CONSTRAINT [CHK_Users_Login_Length]

ALTER TABLE [dbo].[Users] WITH CHECK ADD CONSTRAINT [CHK_Users_Password_Digit] CHECK ((patindex('%[0-9]%', [Password])>(0)))

ALTER TABLE [dbo].[Users] CHECK CONSTRAINT [CHK_Users_Password_Digit]

ALTER TABLE [dbo].[Users] WITH CHECK ADD CONSTRAINT [CHK_Users_Password_Length] CHECK ((len([Password])>=
(8)))

ALTER TABLE [dbo].[Users] CHECK CONSTRAINT [CHK_Users_Password_Length]
```

21. Students: Tabela posiada wszystkich zarejestrowanych studentów, zawiera klucz główny (StudentID). Przechowuje informacje o studentach takie jak: imię, nazwisko, datę urodzenia (FirstName, LastName, BirthDate), z jakiego kraju pochodzi i dane adresowe (CountryID, Country, Region, City, ZipCode, Street), numer prywatnego i domowego telefonu (Phone, HomeNumber).

```
CREATE TABLE [dbo].[Students](
    [StudentID] [int] NOT NULL,
    [FirstName] [nchar](20) NOT NULL,
    [LastName] [nchar](20) NOT NULL,
    [BirthDate] [date] NOT NULL,
    [CountryID] [int] NOT NULL,
    [Region] [nchar](20) NOT NULL,
    [City] [nchar](20) NOT NULL,
    [ZipCode] [nchar](10) NOT NULL,
    [Street] [nchar](20) NOT NULL,
    [Phone] [nchar](20) NOT NULL,
    [HomeNumber] [nchar](15) NULL,
    CONSTRAINT [PK_Students] PRIMARY KEY CLUSTERED
(
    [StudentID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Students] WITH CHECK ADD CONSTRAINT [FK_Students_Countries] FOREIGN KEY([CountryID])
REFERENCES [dbo].[Countries] ([CountryID])

ALTER TABLE [dbo].[Students] CHECK CONSTRAINT [FK_Students_Countries]

ALTER TABLE [dbo].[Students] WITH CHECK ADD CONSTRAINT [FK_Students_Users] FOREIGN KEY([StudentID])
REFERENCES [dbo].[Users] ([UserID])
```

```

ALTER TABLE [dbo].[Students] CHECK CONSTRAINT [FK_Students_Users]

ALTER TABLE [dbo].[Students] WITH CHECK ADD CONSTRAINT [CHK_Students_BirthDate] CHECK (([BirthDate]
<=getdate()))

ALTER TABLE [dbo].[Students] CHECK CONSTRAINT [CHK_Students_BirthDate]

```

22. Employees: Tabela zawiera o wszystkich pracownikach, posiada klucz główny (EmployeeID) oraz informację o pracowniku takie jak: pozycję, imię, nazwisko (PositionID, FirstName, LastName), datę zatrudnienia, pensję, email, numer telefonu oraz miasto (HireDate, Salary, Email, Phone, City), dodatkowo informację czy dany pracownik wciąż dla nas pracuje(IsActive).

```

CREATE TABLE [dbo].[Employees](
    [EmployeeID] [int] NOT NULL,
    [PositionID] [int] NOT NULL,
    [FirstName] [nchar](20) NOT NULL,
    [LastName] [nchar](20) NOT NULL,
    [HireDate] [date] NOT NULL,
    [Salary] [money] NOT NULL,
    [Email] [nchar](30) NOT NULL,
    [Phone] [nchar](15) NOT NULL,
    [City] [nchar](20) NOT NULL,
    [IsActive] [bit] NOT NULL,
    CONSTRAINT [PK_Employees] PRIMARY KEY CLUSTERED
(
    [EmployeeID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY],
    CONSTRAINT [UQ_Employees_Email] UNIQUE NONCLUSTERED
(
    [Email] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Employees] WITH CHECK ADD CONSTRAINT [FK_Employees_Position] FOREIGN KEY([PositionID])
REFERENCES [dbo].[Positions] ([PositionID])

ALTER TABLE [dbo].[Employees] CHECK CONSTRAINT [FK_Employees_Position]

ALTER TABLE [dbo].[Employees] WITH CHECK ADD CONSTRAINT [FK_Employees_Users] FOREIGN KEY([EmployeeID])
REFERENCES [dbo].[Users] ([UserID])

ALTER TABLE [dbo].[Employees] CHECK CONSTRAINT [FK_Employees_Users]

ALTER TABLE [dbo].[Employees] WITH CHECK ADD CONSTRAINT [CHK_Employees_Email_Format] CHECK
((charindex('@',[Email])>(0)))

ALTER TABLE [dbo].[Employees] CHECK CONSTRAINT [CHK_Employees_Email_Format]

ALTER TABLE [dbo].[Employees] WITH CHECK ADD CONSTRAINT [CHK_Employees_Salary] CHECK (([Salary]>(0)))

ALTER TABLE [dbo].[Employees] CHECK CONSTRAINT [CHK_Employees_Salary]

```

23. TeachingStaff: Tabela zawiera informacje o kadrze nauczycielskiej, posiada klucz główny (TeacherID) oraz informację o tym w jakim języku prowadzi zajęcia i jego stopień naukowy (LanguageID, Degree).

```

CREATE TABLE [dbo].[TeachingStaff](
    [TeacherID] [int] NOT NULL,
    [LanguageID] [int] NOT NULL,
    [Degree] [nchar](30) NOT NULL,
    CONSTRAINT [PK_TeachingStaff] PRIMARY KEY CLUSTERED
(
    [TeacherID] ASC

```

```

)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[TeachingStaff] WITH CHECK ADD CONSTRAINT [FK_TeachingStaff_Employees] FOREIGN
KEY([TeacherID])
REFERENCES [dbo].[Employees] ([EmployeeID])

ALTER TABLE [dbo].[TeachingStaff] CHECK CONSTRAINT [FK_TeachingStaff_Employees]

ALTER TABLE [dbo].[TeachingStaff] WITH CHECK ADD CONSTRAINT [CK_TeachingStaff_Degree] CHECK
((([Degree]='professor' OR [Degree]='doctor' OR [Degree]='master' OR [Degree]='bachelor' OR [Degree]='none'))

ALTER TABLE [dbo].[TeachingStaff] CHECK CONSTRAINT [CK_TeachingStaff_Degree]

```

24. Translators: Tabela zawiera informacje o tłumaczach, posiada klucz główny (TranslatorID) oraz informacje o języku z którego tłumaczy (LanguageID).

```

CREATE TABLE [dbo].[Translators](
    [TranslatorID] [int] NOT NULL,
    [LanguageID] [int] NOT NULL,
    CONSTRAINT [PK_Translators] PRIMARY KEY CLUSTERED
(
    [TranslatorID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Translators] WITH CHECK ADD CONSTRAINT [FK_Translators_Employees] FOREIGN
KEY([TranslatorID])
REFERENCES [dbo].[Employees] ([EmployeeID])

ALTER TABLE [dbo].[Translators] CHECK CONSTRAINT [FK_Translators_Employees]

ALTER TABLE [dbo].[Translators] WITH CHECK ADD CONSTRAINT [FK_Translators_Languages] FOREIGN
KEY([LanguageID])
REFERENCES [dbo].[Languages] ([LanguageID])

ALTER TABLE [dbo].[Translators] CHECK CONSTRAINT [FK_Translators_Languages]

```

25. Administrators: Tabela zawiera informacja o admnistratach zawiera klucz główny (AdminID) oraz data otrzymania uprawnień (Add_date).

```

CREATE TABLE [dbo].[Administrators](
    [AdminID] [int] NOT NULL,
    [Add_date] [datetime] NOT NULL,
    CONSTRAINT [PK_Administrators_1] PRIMARY KEY CLUSTERED
(
    [AdminID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Administrators] WITH CHECK ADD CONSTRAINT [FK_Administrators_Employees] FOREIGN
KEY([AdminID])
REFERENCES [dbo].[Employees] ([EmployeeID])

ALTER TABLE [dbo].[Administrators] CHECK CONSTRAINT [FK_Administrators_Employees]

```

26. Countries: Tabela zawiera informacje o krajach, posiada klucz główny (CountryID), nazwę kraju i język (CountryName, LanguageID).

```

CREATE TABLE [dbo].[Countries](
    [CountryID] [int] NOT NULL,
    [CountryName] [nchar](20) NOT NULL,
    [LanguageID] [int] NOT NULL,
    CONSTRAINT [PK_Countries2] PRIMARY KEY CLUSTERED
(
    [CountryID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Countries] WITH CHECK ADD CONSTRAINT [FK_Countries_Languages] FOREIGN KEY([LanguageID])
REFERENCES [dbo].[Languages] ([LanguageID])

ALTER TABLE [dbo].[Countries] CHECK CONSTRAINT [FK_Countries_Languages]

ALTER TABLE [dbo].[Countries] WITH CHECK ADD CONSTRAINT [CHK_Countries_CountryName_Length] CHECK
((len([CountryName])>=(3)))

ALTER TABLE [dbo].[Countries] CHECK CONSTRAINT [CHK_Countries_CountryName_Length]

```

27. Languages: Tabela zawiera informacje o językach, posiada klucz główny (LanguageID) oraz nazwę języka (LanguageName).

```

CREATE TABLE [dbo].[Languages](
    [LanguageID] [int] NOT NULL,
    [LanguageName] [nchar](20) NOT NULL,
    CONSTRAINT [PK_Languages] PRIMARY KEY CLUSTERED
(
    [LanguageID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Languages] WITH CHECK ADD CONSTRAINT [CHK_Languages_LanguageName_Length] CHECK
((len([LanguageName])>=(3)))

ALTER TABLE [dbo].[Languages] CHECK CONSTRAINT [CHK_Languages_LanguageName_Length]

```

28. Position Tabela zawiera informacje o stanowiskach, posiada klucz główny (PositionID) oraz nazwę stanowiska w postaci znakowej (PositionName).

```

CREATE TABLE [dbo].[Positions](
    [PositionID] [int] NOT NULL,
    [PositionName] [nchar](15) NOT NULL,
    CONSTRAINT [PK_Position] PRIMARY KEY CLUSTERED
(
    [PositionID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]

ALTER TABLE [dbo].[Positions] WITH CHECK ADD CONSTRAINT [CHK_Positions_PositionName] CHECK
((([PositionName]='director' OR [PositionName]='administrator' OR [PositionName]='educator' OR
[PositionName]='menager'))

ALTER TABLE [dbo].[Positions] CHECK CONSTRAINT [CHK_Positions_PositionName]

```

Widoki

1. AttendanceMeetingView Widok przedstawiający obecność studentów na spotkaniach. Dla każdego kursu podaje sumę obecności, łączną liczbę spotkań oraz procentową obecność. Umożliwia analizę uczestnictwa studentów w ramach konkretnych kursów i modułów.

```

CREATE VIEW [dbo].[AttendanceMeetingView] AS
SELECT
    c.CourseID,
    a.StudentID,
    m.ModuleID,
    SUM(CAST(a.Attendance AS INT)) AS Attendance,
    COUNT(CAST(a.Attendance AS INT) * 100) AS AllMeeting,
    CONCAT(AVG(CAST(a.Attendance AS INT) * 100), '%') AS AttendancePercentage
FROM
    Courses AS c
INNER JOIN
    Modules AS m ON m.CourseID = c.CourseID
INNER JOIN
    Meetings AS me ON me.ModuleID = m.ModuleID
INNER JOIN
    CourseAttendance AS a ON a.MeetingID = me.MeetingID
GROUP BY
    c.CourseID, a.StudentID, m.ModuleID;

```

| | CourseID | StudentID | ModuleID | Attendance | AllMeeting | AttendancePercentage |
|---|----------|-----------|----------|------------|------------|----------------------|
| 1 | 13 | 20 | 1 | 1 | 1 | 100% |
| 2 | 13 | 21 | 1 | 1 | 1 | 100% |
| 3 | 13 | 22 | 1 | 1 | 1 | 100% |
| 4 | 13 | 20 | 2 | 0 | 1 | 0% |
| 5 | 13 | 21 | 2 | 1 | 1 | 100% |
| 6 | 13 | 22 | 2 | 0 | 1 | 0% |
| 7 | 13 | 20 | 3 | 1 | 1 | 100% |
| 8 | 13 | 21 | 3 | 1 | 1 | 100% |
| 9 | 13 | 22 | 3 | 0 | 1 | 0% |

2. CoursesPass Widok ten identyfikuje, czy studenci zaliczyli kurs na podstawie procentowej obecności w poszczególnych modułach. Dla każdego kursu podaje procentową obecność, łączną liczbę modułów oraz status "Pass" lub "Fail" w zależności od spełnienia warunku procentowej obecności (80% lub więcej). Umożliwia monitorowanie postępów studentów i ocenę ich osiągnięć w kontekście kursów.

```

CREATE VIEW [dbo].[CoursesPass] As
SELECT
    amv.CourseID,
    amv.StudentID,
    CONCAT((COUNT(amv.ModuleID) * 100) / c.ModulesNo, '%') AS AttendancePercentage,
    c.ModulesNo,
    CASE
        WHEN ((COUNT(amv.ModuleID) * 100) / c.ModulesNo) >= 80 THEN 'Pass'
        ELSE 'Fail'
    END AS Result
FROM
    AttendanceMeetingView AS amv
INNER JOIN
    Courses AS c ON amv.CourseID = c.CourseID
WHERE
    AttendancePercentage = '100%'
GROUP BY
    amv.CourseID,
    amv.StudentID,
    c.ModulesNo;

```


| | CourseID | StudentID | AttendancePercentage | ModulesNo | Result |
|---|----------|-----------|----------------------|-----------|--------|
| 1 | 13 | 20 | 50% | 4 | Fail |
| 2 | 13 | 21 | 75% | 4 | Fail |
| 3 | 13 | 22 | 25% | 4 | Fail |

3.

```
Select CourseID, CourseName, (  
    SELECT SUM(p.Value) FROM Payments p  
    WHERE p.IsCancelled IS NOT Null AND p.OrderID = c.CourseID  
) zysk FROM Courses c
```