**Polecenie DDL**

*-- łączenie do bazy przez cmd (xampp)*

1. Otwórz **cmd**.
2. Przejdź do katalogu xampp/**mysql**/bin.
3. Wejdź na konto roota komendą **mysql** -u root -p.

*-- Tworzenie bazy*

CREATE DATABASE testDB;

*--usunięcie bazy*

DROP DATABASE testDB;

*--Utworzenie tabeli*

CREATE TABLE table\_name (

column1 datatype,

column2 datatype,

column3 datatype,

....

);

CREATE TABLE Persons (

PersonID int,

LastName varchar(255),

FirstName varchar(255),

Address varchar(255),

City varchar(255)

);

*--Utworzenie kopi tabeli*

CREATE TABLE new\_table\_name AS

SELECT column1, column2,...

FROM existing\_table\_name

WHERE ....;

CREATE TABLE TestTable AS

SELECT customername, contactname

FROM customers;

*--Usunięcie tabeli*

DROP TABLE TestTable;

*--Usunięcie wszystkich danych z tabeli*

delete from TestTable;

*--usuniecie wszystkich danych z tabeli włącznie z sekwencjami i indeksami*

truncate table TestTable;

*--dodanie kolumny do tabeli*

ALTER TABLE table\_name

ADD column\_name datatype;

ALTER TABLE Customers

ADD Email varchar(255);

*--usunięcie kolumny z tabeli*

ALTER TABLE table\_name

DROP COLUMN column\_name;

ALTER TABLE Customers

DROP COLUMN Email;

*--zmiana typu kolumny*

ALTER TABLE table\_name

MODIFY COLUMN column\_name datatype;

ALTER TABLE Customers

MODIFY COLUMN Email varchar(30);

*-- zmiana nazwy kolumny*

ALTER TABLE table\_name

CHANGE COLUMN old\_column\_name new\_column\_name data\_type;

ALTER TABLE Customers CHANGE Email Email2 Varchar(255);

*--Constraint (ograniczenia)*

*-- niedozwolona wartość NULL w kolumnie*

CREATE TABLE Persons (

ID int NOT NULL,

LastName varchar(255) NOT NULL,

FirstName varchar(255) NOT NULL,

Age int

);

ALTER TABLE Persons

MODIFY Age int NOT NULL;

*-- Dozwolona tylko unikalna wartość w kolumnie (kolumnach)*

CREATE TABLE Persons (

ID int NOT NULL,

LastName varchar(255) NOT NULL,

FirstName varchar(255),

Age int,

UNIQUE (ID)

);

ALTER TABLE Persons

ADD UNIQUE (ID);

CREATE TABLE Persons (

ID int NOT NULL,

LastName varchar(255) NOT NULL,

FirstName varchar(255),

Age int,

CONSTRAINT UC\_Person UNIQUE (ID,LastName)

);

ALTER TABLE Persons

ADD CONSTRAINT UC\_Person UNIQUE (ID,LastName);

ALTER TABLE Persons

DROP INDEX UC\_Person;

*--utworzenie klucza głównego (PRIMARY KEY) na jednej lub kilku kolumnach*

CREATE TABLE Persons (

ID int NOT NULL,

LastName varchar(255) NOT NULL,

FirstName varchar(255),

Age int,

PRIMARY KEY (ID)

);

ALTER TABLE Persons

ADD PRIMARY KEY (ID);

CREATE TABLE Persons (

ID int NOT NULL,

LastName varchar(255) NOT NULL,

FirstName varchar(255),

Age int,

CONSTRAINT PK\_Person PRIMARY KEY (ID,LastName)

);

ALTER TABLE Persons

ADD CONSTRAINT PK\_Person PRIMARY KEY (ID,LastName);

ALTER TABLE Persons

DROP PRIMARY KEY;

*-- utworzenie klucza obcego (FOREGIN KEY) do innej tabeli*

CREATE TABLE Orders (

OrderID int NOT NULL,

OrderNumber int NOT NULL,

PersonID int,

PRIMARY KEY (OrderID),

FOREIGN KEY (PersonID) REFERENCES Persons(PersonID)

);

ALTER TABLE Orders

ADD FOREIGN KEY (PersonID) REFERENCES Persons(PersonID);

*-- z dodaną nazwą*

CREATE TABLE Orders (

OrderID int NOT NULL,

OrderNumber int NOT NULL,

PersonID int,

PRIMARY KEY (OrderID),

CONSTRAINT FK\_PersonOrder FOREIGN KEY (PersonID)

REFERENCES Persons(PersonID)

);

ALTER TABLE Orders

ADD CONSTRAINT FK\_PersonOrder

FOREIGN KEY (PersonID) REFERENCES Persons(PersonID);

ALTER TABLE Orders

DROP FOREIGN KEY FK\_PersonOrder;

*-- ustawienie wartości domyślnej dla kolumny*

CREATE TABLE Persons (

ID int NOT NULL,

LastName varchar(255) NOT NULL,

FirstName varchar(255),

Age int,

City varchar(255) DEFAULT 'Sandnes'

);

ALTER TABLE Persons

ALTER City SET DEFAULT 'Sandnes';

ALTER TABLE Persons

ALTER City DROP DEFAULT;

*-- utworzenie indeksu na kolumnie ( kolumnach )*

CREATE INDEX index\_name

ON table\_name (column1, column2, ...);

CREATE UNIQUE INDEX index\_name

ON table\_name (column1, column2, ...);

CREATE INDEX idx\_lastname

ON Persons (LastName);

CREATE INDEX idx\_pname

ON Persons (LastName, FirstName);

ALTER TABLE table\_name

DROP INDEX index\_name;

*-- ustawienie auto incrementacji (automatycznego zwiększania wartości w polu - AUTO\_INCREMENT)*

CREATE TABLE Persons (

Personid int NOT NULL AUTO\_INCREMENT,

LastName varchar(255) NOT NULL,

FirstName varchar(255),

Age int,

PRIMARY KEY (Personid)

);

ALTER TABLE Persons AUTO\_INCREMENT=100;