

```
--create database university_ranking
```

```
USE university_ranking
```

```
DROP TABLE IF EXISTS country,  
                    university,  
                    university_ranking_year,  
                    ranking_system,  
                    ranking_criteria
```

```
CREATE TABLE country(  
    id                INT IDENTITY(1,1) NOT NULL,  
    country_name      VARCHAR(50)      NOT NULL,  
    PRIMARY KEY (id)  
);
```

```
CREATE TABLE university(  
    id                INT IDENTITY(1,1) NOT NULL,  
    country_id        INT              NOT NULL,  
    university_name    VARCHAR(50)     NOT NULL,  
    FOREIGN KEY (country_id) REFERENCES country (id),  
    PRIMARY KEY (id)  
);
```

```
CREATE TABLE ranking_system(  
    id                INT IDENTITY(1,1) NOT NULL,  
    system_name       VARCHAR(50)      NOT NULL,  
    PRIMARY KEY (id)  
);
```

```
CREATE TABLE ranking_criteria(  
    id                INT IDENTITY(1,1) NOT NULL,  
    ranking_system_id INT              NOT NULL,  
    criteria_name     VARCHAR(50)     NOT NULL,  
    FOREIGN KEY (ranking_system_id) REFERENCES ranking_system (id),  
    PRIMARY KEY (id)  
);
```

```
CREATE TABLE university_ranking_year(  
    university_id     INT              NOT NULL,  
    ranking_criteria_id INT           NOT NULL,  
    year              INT              NOT NULL,  
    score              INT              NOT NULL,  
    FOREIGN KEY (university_id) REFERENCES university (id),  
    FOREIGN KEY (ranking_criteria_id) REFERENCES ranking_criteria (id),  
    PRIMARY KEY (university_id, ranking_criteria_id)  
);
```

```

USE university_ranking;

INSERT INTO country (country_name)
VALUES ('Poland'),
       ('Germany'),
       ('France'),
       ('Scotland'),
       ('Belgium'),
       ('Spain'),
       ('USA');

INSERT INTO university (university_name, country_id)
SELECT 'PWr', id FROM country WHERE country_name = 'Poland'
UNION ALL
SELECT 'University of Freiburg', id FROM country WHERE country_name = 'Germany'
UNION ALL
SELECT 'UWr', id FROM country WHERE country_name = 'Poland'
UNION ALL
SELECT 'Heidelberg University', id FROM country WHERE country_name = 'Germany'
UNION ALL
SELECT 'Harvard University', id FROM country WHERE country_name = 'USA'
UNION ALL
SELECT 'Stanford University', id FROM country WHERE country_name = 'USA';

--DELETE FROM university;
--DBCC CHECKIDENT('university', RESEED, 0);

INSERT INTO ranking_system (system_name)
VALUES ('World University Rankings'),
       ('Country University Rankings'),
       ('Subject-Specific Rankings');

INSERT INTO ranking_criteria (criteria_name, ranking_system_id)
VALUES ('Academic Reputation', 1),
       ('Employer Reputation', 1),
       ('Citations per Faculty', 1),
       ('International Faculty Ratio', 1),
       ('International Student Ratio', 1),
       ('Research', 2),
       ('Teaching', 2),
       ('Research Income', 2),
       ('Subject Ranking', 3),
       ('Publication Citation', 3);

INSERT INTO university_ranking_year (university_id, ranking_criteria_id, year, score)
VALUES
(1, 1, 2021, 93),
(1, 2, 2021, 85),
(1, 3, 2021, 77),
(1, 4, 2021, 81),
(1, 5, 2021, 84),
(1, 6, 2021, 79),
(1, 7, 2021, 86),
(1, 8, 2021, 76),
(1, 9, 2021, 82),
(1, 10, 2021, 88),
(2, 1, 2021, 91),

```

(2, 2, 2021, 83),  
(2, 3, 2021, 76),  
(2, 4, 2021, 80),  
(2, 5, 2021, 83),  
(2, 6, 2021, 78),  
(2, 7, 2021, 85),  
(2, 8, 2021, 74),  
(2, 9, 2021, 81),  
(2, 10, 2021, 87),  
(3, 1, 2021, 90),  
(3, 2, 2021, 82),  
(3, 3, 2021, 75),  
(3, 4, 2021, 79),  
(3, 5, 2021, 82),  
(3, 6, 2021, 77),  
(3, 7, 2021, 84),  
(3, 8, 2021, 73),  
(3, 9, 2021, 80),  
(3, 10, 2021, 86),  
(4, 1, 2021, 89),  
(4, 2, 2021, 81),  
(4, 3, 2021, 74),  
(4, 4, 2021, 78),  
(4, 5, 2021, 81),  
(4, 6, 2021, 76),  
(4, 7, 2021, 83),  
(4, 8, 2021, 72),  
(4, 9, 2021, 79),  
(4, 10, 2021, 85),  
(5, 1, 2021, 88),  
(5, 2, 2021, 80),  
(5, 3, 2021, 73),  
(5, 4, 2021, 77),  
(5, 5, 2021, 80),  
(5, 6, 2021, 75),  
(5, 7, 2021, 82),  
(5, 8, 2021, 71),  
(5, 9, 2021, 78),  
(5, 10, 2021, 84),  
(6, 1, 2021, 92),  
(6, 2, 2021, 86),  
(6, 3, 2021, 78),  
(6, 4, 2021, 77),  
(6, 5, 2021, 99),  
(6, 6, 2021, 87),  
(6, 7, 2021, 88),  
(6, 8, 2021, 84),  
(6, 9, 2021, 80),  
(6, 10, 2021, 81);

USE university\_ranking;

SELECT DISTINCT id, country\_name FROM country;

SELECT DISTINCT country\_name FROM country;

SELECT DISTINCT id, country\_name FROM country;

SELECT \* FROM university;

SELECT \* FROM ranking\_system;

SELECT \* FROM ranking\_criteria;

SELECT \*

FROM university\_ranking\_year

INNER JOIN ranking\_criteria ON ranking\_criteria\_id = ranking\_criteria.id

INNER JOIN ranking\_system ON ranking\_system.id = ranking\_criteria.ranking\_system\_id

WHERE score >= 85 AND system\_name = 'World University Rankings';

SELECT TOP 10 \*

FROM university\_ranking\_year

INNER JOIN ranking\_criteria ON ranking\_criteria\_id = ranking\_criteria.id

INNER JOIN ranking\_system ON ranking\_system.id = ranking\_criteria.ranking\_system\_id

INNER JOIN university ON university\_id = university.id

INNER JOIN country ON country.id = country\_id

WHERE system\_name = 'World University Rankings'

AND year = 2021

ORDER BY score DESC