**2024학년도 2학기 데이터베이스 설계 및 구축 최종 보고서**

**( 태풍정보 열람시스템 )의 데이터베이스**

**설계 및 구축**

|  |  |
| --- | --- |
| **학 과** | **컴퓨터소프트웨어과** |
| **분 반** | **1반** |
| **과목명** | **데이터베이스** |
| **학 번** | **202248112, 202241408** |
| **이 름** | **김현준, 허윤** |
| **담당교수** | **김 경 민** |
| **제 출 일** | **2024년 12월 25일** |

**목 차**

1. 프로젝트 개요 ···························································································································· 3

2. 요구사항 분석 ··························································································································· 4

3. 개념적 데이터 모델 ················································································································ 5

4. 논리적 데이터 모델 ················································································································ 6

5. 용어 사전 정의 ·························································································································· 7

6. 물리적 데이터 모델 ················································································································ 8

7. Table 기술서 ······························································································································ 9

8. SQL문 사용하기

1) 기본 SQL ···························································································································· 14

2) JOIN ······································································································································ 15

3) Sub Query ·························································································································· 16

9. 별첨(프로젝트 후기, Databace 구축 Dump 자료) ················································· 17

# 1. 프로젝트 개요

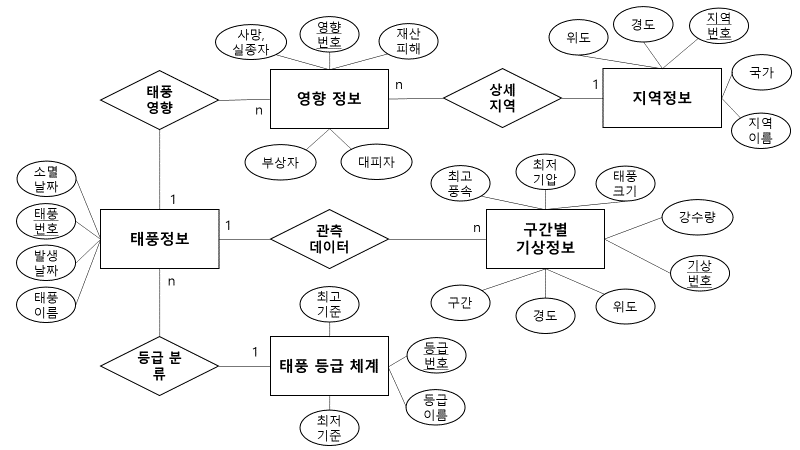
|  |  |
| --- | --- |
| 프로젝트 개요 | |
| **프로젝트 명** | 태풍정보 열람시스템 |
| **주제 선정 이유**  태풍 데이터를 활용하여 태풍들의 상세 정보들을 정리해 구축하고자 함  **프로젝트 소개**  태풍과 관련된 여러 정보를 확인해 보다 쉬운 정보 확인이 가능해짐.    **기대 효과**  태풍들의 데이터들을 파악해 앞으로의 태풍규모를 일정 범위내로 예상  기상 데이터들을 활용해 피해규모를 분석 태풍들의 분류가 어떻게 되는지 확인 가능  지역별 태풍이 준 영향 확인 가능 | |

# 2. 요구사항 분석

|  |  |
| --- | --- |
| 요구사항 분석 | |
| **프로젝트 명** | 태풍정보 열람시스템 |
| < 저장할 정보들 >   * 태풍정보는 유일한 정보인 태풍번호, 태풍이름, 발생날짜, 소멸날짜 정보를 가진다. * 영향정보는 유일한 정보인 영향번호, 사망,실종자, 부상자, 대피자, 재산피해 정보를 가진다. * 지역정보는 유일한 정보인 지역번호, 지역이름, 위도, 경도, 국가 정보를 가진다. * 구간별 기상정보는 기상번호, 구간, 경도, 위도, 최고풍속, 최저기압, 태풍크기, 강수량 정보를 가진다. * 태풍등급체계는 유일한 정보인 등급번호, 최고기준 ,최저기준, 등급이름 정보를 가진다. * 태풍정보는 하나의 태풍등급체계에 소속되어야 하고 하나의 태풍등급체계는 여러 태풍정보들이 소속된다. * 구간별 기상정보는 하나의 태풍정보에 소속되어야 하고 하나의 태풍정보에는 여러 구간별 기상정보가 소속된다. * 영향정보는 하나의 태풍정보에 소속되어야 하고 태풍정보는 여러 영향정보가 소속된다. * 영향정보는 하나의 지역정보에 소속되어야 하고 하나의 지역정보에는 여러 영향정보가 소속된다.   < 제공할 기능들 >   * 각 태풍의 발생 날짜를 조회 할 수 있다. * 각 지역의 총 피해금액을 확인 할 수 있다. * 태풍의 발생일수를 조회할 수 있다. * 특정 태풍의 피해자 수와 피해 금액을 조회 할 수 있다. * 각 태풍 등급별 태풍 개수를 조회 할 수 있다. * 태풍으로 인한 피해자 수를 조회 할 수있다. * 지역별 태풍 발생수를 조회 할 수 있다. * 각 태풍 등급별 태풍 개수를 조회 할 수 있다. * 각태풍의 피해자 수 및 지역 정보를 조회 할 수있다. * 특정 태풍의 피해자수가 가장 많은 지역을 조회 할 수있다. * 피해금액이 가장 높은 태풍의 이름을 조회 할 수있다. * 각 태풍의 피해자 수가 전체 평균보다 많은 태풍을 조회할 수있다. | |

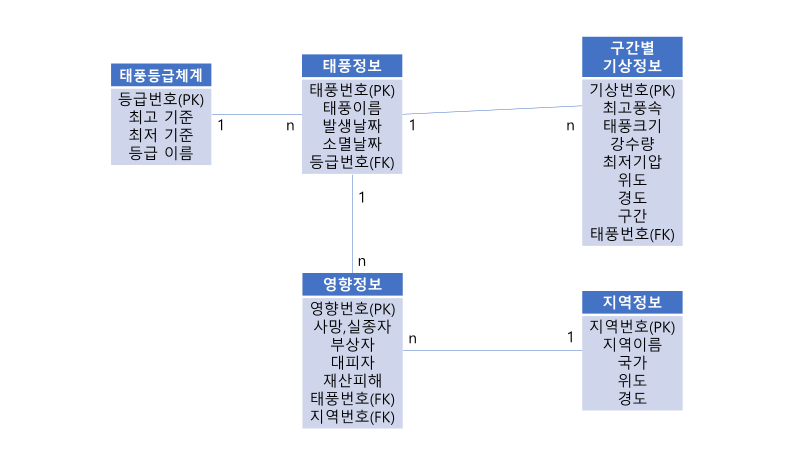
# 3. 개념적 데이터 모델

|  |  |
| --- | --- |
| 개념적 데이터 모델 | |
| **프로젝트 명** | 태풍정보 열람시스템 |



# 4. 논리적 데이터 모델

|  |  |
| --- | --- |
| 논리적 데이터 모델 | |
| **프로젝트 명** | 태풍정보 열람시스템 |

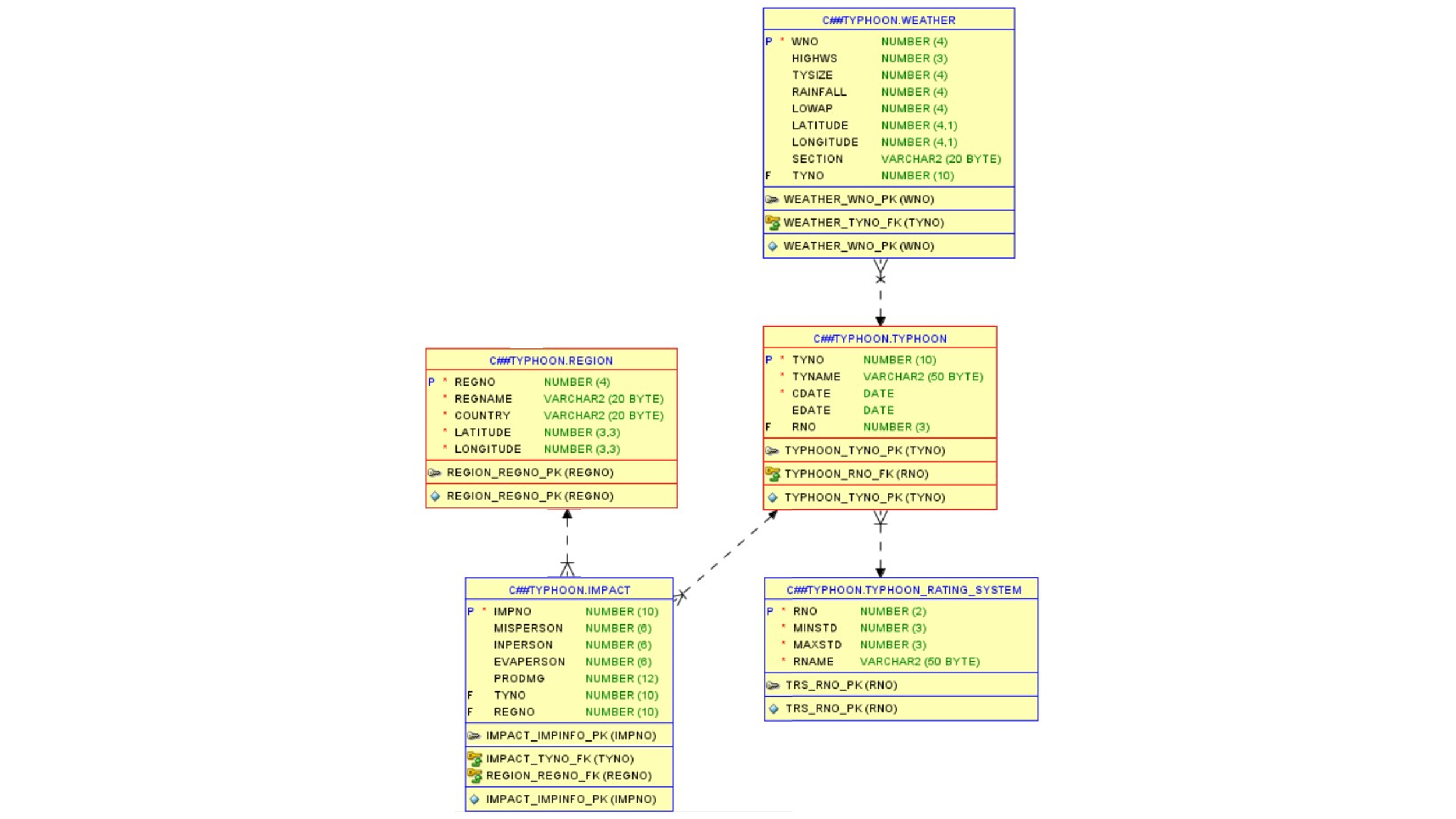


# 5. 용어 사전 정의

|  |  |  |  |
| --- | --- | --- | --- |
| 용어 사전 | | | |
| **프로젝트 명** | 태풍정보 열람시스템 | | |
| **논리명** | **물리명** | **약어** | **설 명** |
| 태풍정보 | Typhoon |  | 태풍정보 테이블 |
| 태풍번호 | Typhoon\_no | Tyno |  |
| 태풍이름 | Typhoon\_name | tyname |  |
| 등급번호 | Rating\_number | Rno |  |
| 발생날짜 | Creation\_date | cdate |  |
| 소멸날짜 | Expiration\_date | edate |  |
| 영향정보 | Impact |  | 영향정보 테이블 |
| 영향번호 | Impact\_no | Impno |  |
| 사망,실종자 | Missing\_person | Misperson |  |
| 부상자 | Injured\_person | Injperson |  |
| 대피자 | Evacuee\_person | evaperson |  |
| 재산피해 | Property\_damage | Prodmg |  |
| 지역정보 | Local |  | 지역정보 테이블 |
| 지역번호 | Local\_no | Locno |  |
| 지역이름 | Local\_name | locname |  |
| 국가 | country |  |  |
| 경도 | Longitude |  | 지역&기상정보 |
| 위도 | Latitude |  | 지역&기상정보 |
| 구간별기상정보 | Weather |  | 구간별 기상정보 테이블 |
| 기상번호 | Weather\_no | wno |  |
| 최고풍속 | Highest\_wind\_speed | Highws |  |
| 태풍크기 | Typoon\_size | Tysize |  |
| 강수량 | Rainfall |  |  |
| 최저기압 | Lowest\_air\_pressure | Lowap |  |
| 구간 | section |  |  |
| 태풍등급체계 | Typoon\_rating\_system |  | 태풍등급체계테이블 |
| 최고 기준 | Maximum\_standard | maxstd |  |
| 최저 기준 | Minimum\_standard | minstd |  |
| 등급 이름 | Rating\_name | Rname |  |

# 6. 물리적 데이터 모델

|  |  |
| --- | --- |
| 물리적 데이터 모델 | |
| **프로젝트 명** | 태풍정보 열람시스템 |



# 7. Table 기술서

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 기술서 | | | | | | |
| **테이블 명** | | Typhoon | | | | |
| **테이블 설명** | | 태풍 기본 정보를 관리한다. | | | | |
| **No** | **Attribute** | **Data Type** | **NN** | **Ky** | **Default** | **Description** |
| 1 | Tyno | Number(10) |  | pk |  | 태풍번호 |
| 2 | tyname | Varchar2(50) | nn |  |  | 태풍이름 |
| 3 | cdate | Date |  |  |  | 발생날짜 |
| 4 | edate | Date |  |  |  | 소멸날짜 |
| 5 | rno | Number(2) |  | fk |  | 등급번호 |
| 6 |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |
| **비 고** | | | | | | |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 기술서 | | | | | | |
| **테이블 명** | | Impact | | | | |
| **테이블 설명** | | 태풍이 어떤 영향을 주었는지 관리한다. | | | | |
| **No** | **Attribute** | **Data Type** | **NN** | **Ky** | **Default** | **Description** |
| 1 | impinfo | Number(10) |  | pk |  | 영향번호 |
| 2 | Misperson | Number(6) |  |  | 0 | 사망,실종자 |
| 3 | Injperson | Number(6) |  |  | 0 | 부상자 |
| 4 | Evaperson | Number(6) |  |  | 0 | 대피자 |
| 5 | Prodmg | Number(12) |  |  | 0 | 재산피해 |
| 6 | Tyno | Number(10) |  | fk |  | 태풍번호 |
| 7 | Regno | Number(10) |  | fk |  | 지역번호 |
| 8 |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |
| **비 고** | | | | | | |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 기술서 | | | | | | |
| **테이블 명** | | Region | | | | |
| **테이블 설명** | | 지역의 정보를 관리한다. | | | | |
| **No** | **Attribute** | **Data Type** | **NN** | **Ky** | **Default** | **Description** |
| 1 | regno | Number(4) | nn | pk |  | 지역번호 |
| 2 | regname | Varchar2(10) | nn |  |  | 지역이름 |
| 3 | Country | Varchar2(10) | nn |  |  | 국가 |
| 4 | Latitude | Number(6.3) | nn |  |  | 위도 |
| 5 | longitude | Number(6.3) | nn |  |  | 경도 |
| 6 |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |
| **비 고** | | | | | | |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 기술서 | | | | | | |
| **테이블 명** | | Weather | | | | |
| **테이블 설명** | | 태풍의 구간별 기상정보를 관리한다. | | | | |
| **No** | **Attribute** | **Data Type** | **NN** | **Ky** | **Default** | **Description** |
| 1 | wno | Number(4) |  | pk |  | 기상번호 |
| 2 | Highws | Number(3.1) |  |  |  | 최고풍속 |
| 3 | Tysize | Number(4) |  |  |  | 태풍크기 |
| 4 | Rainfall | Number(4) |  |  |  | 강수량 |
| 5 | Lowap | Number(4) |  |  |  | 최저기압 |
| 6 | Latitude | Number(6.3) |  |  |  | 위도 |
| 7 | Longitude | Number(6.3) |  |  |  | 경도 |
| 8 | section | Varchar(10) |  |  |  | 구간 |
| 9 | tyno | Number(4) |  | fk |  | 태풍번호 |
| 10 |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |
| **비 고** | | | | | | |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 기술서 | | | | | | |
| **테이블 명** | | Typoon\_rating\_system | | | | |
| **테이블 설명** | | 태풍등급분류체계를 관리한다. | | | | |
| **No** | **Attribute** | **Data Type** | **NN** | **Ky** | **Default** | **Description** |
| 1 | Rno | Number(2) |  | Pk |  | 등급번호 |
| 2 | Maxstd | Number(3) | Nn |  |  | 최고기준 |
| 3 | Minstd | Nuber(2) | Nn |  |  | 최저기준 |
| 4 | rname | Varcher2(50) | nn |  |  | 등급이름 |
| 5 |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |
| **비 고** | | | | | | |
|  | | | | | | |

# 8. SQL문 사용하기

## **1) 기본 SQL(select, where, 그룹함수, group by, having, order by) - 기본 5개**

--1. 각 태풍의 발생 날짜와 태풍 이름 조회

select tyname as 태풍이름, cdate as 발생일

from typhoon;

--2. 각 지역의 총 피해 금액과 지역 번호 조회

select regno as 지역번호, sum(prodmg) as 총피해금액

from impact

group by regno;

--3. 각 태풍의 발생 일수 조회

select tyno as 태풍번호, (edate - cdate) as 발생일수

from typhoon

where edate is not null;

--4. 특정 태풍의 피해자 수와 피해 금액을 조회 (예: tyno가 1인 태풍)

select tyno as 태풍번호, sum(misperson + inperson + evaperson) as 총피해자수, sum(prodmg) as 총피해금액

from impact

where tyno = 1

group by tyno;

--5. 각 태풍 등급별 태풍 개수 조회

select rno as 태풍등급번호,

count(\*) as 태풍개수

from typhoon

group by rno

order by rno;

## **2) JOIN – 기본 2개**

--1. 태풍으로 인한 피해자 수 조회

SELECT t.tyname AS 태풍이름, i.misperson as "사망,실종자", i.inperson 부상자, i.evaperson 대피자

FROM Typhoon t

JOIN Impact i ON t.tyno = i.tyno;

--2. 지역별 태풍 발생 수 조회

SELECT r.regname AS 지역명,

COUNT(t.tyno) AS 태풍발생수

FROM Region r

JOIN impact t ON r.regno = t.regno

GROUP BY r.regname;

--3. 각 태풍 등급별 태풍 개수 조회

SELECT trs.rno AS 태풍등급번호,

trs.rname AS 태풍등급명,

COUNT(\*) AS 태풍개수

FROM Typhoon t

INNER JOIN Typhoon\_Rating\_System trs ON t.rno = trs.rno

GROUP BY trs.rno, trs.rname

ORDER BY trs.rno;

--4. 각 태풍의 피해자 수 및 지역 정보 조회

SELECT t.tyname AS 태풍이름,

LISTAGG(r.regname, ', ') AS 지역명,

SUM(i.misperson + i.inperson + i.evaperson) AS 총피해자수

FROM Typhoon t

INNER JOIN Impact i ON t.tyno = i.tyno

LEFT OUTER JOIN Region r ON i.regno = r.regno

GROUP BY t.tyname

ORDER BY t.tyname;

## **3) Sub Query – 기본 3개**

--1. 특정 태풍의 피해자 수가 가장 많은 지역 조회

SELECT r.regname AS 지역명

FROM Region r

WHERE r.regno IN (

SELECT i.regno

FROM Impact i

WHERE i.tyno = (SELECT t.tyno

FROM Typhoon t

WHERE t.tyname = '링링')-- 여기서 '특정 태풍 이름'을 실제 태풍 이름으로 변경

);

--2. 피해금액이 가장 높은 태풍의 이름 조회

SELECT t.tyname AS 태풍이름, r.regname AS 지역명

FROM Typhoon t

JOIN Impact i ON t.tyno = i.tyno

JOIN Region r ON i.regno = r.regno

WHERE i.prodmg IN (SELECT MAX(prodmg)

FROM Impact);

--3. 각 태풍의 피해자 수가 전체 평균보다 많은 태풍 조회

SELECT t.tyname AS 태풍이름

FROM Typhoon t

WHERE

(SELECT SUM(i.misperson + i.inperson + i.evaperson) / COUNT(\*)

FROM Impact i

WHERE i.tyno = t.tyno) >

(SELECT AVG(misperson + inperson + evaperson)

FROM Impact);

|  |
| --- |
| 별 첨 |

**별첨 1. 프로젝트 후기**

**별첨 2. Database 구축 dump 자료**

**1. 프로젝트 후기**

김현준 – 처음에는 데이터로 뭘 할 건지 감을 잡지 못해서 막상 주제를 잡아도 막막했습니다. 그런데 이 프로젝트를 하면서 데이터로 뭘 할 건지 보다는 어떤 정보나 데이터를 수집할 건지 가 가장 중요하다고 생각이 들었습니다 그래서 어떤 데이터를 찾을지 생각하는 것이 조금 힘들었던 것 같습니다. 그리고 기상청이나 나무위키 등 많은 사이트를 둘러보며 정보를 찾는 안목이 많이 트여서 너무 좋은 경험이었던 것 같습니다.

허윤 – 팀원과 주제 선정을 하고 테이블과 시퀀스들을 작성하는 뼈대를 만드는 과정 자체는 쉬웠는데 데이터를 삽입하는 과정이 여러 사이트들을 돌아다니며 팀원과 함께 정보를 모으고 교차 검증, 검토하는 과정을 거쳐서 힘들었지만 기상청 등과 같은 데이터베이스를 구축한 기관들도 이와 같은 행위를 꾸준히 그리고 자세하고 여러 장비들까지 동원해 기록을 했기 때문에 우리가 접근해서 열람이 가능하다는 걸 깨달은 것 같다.

**2. Database 구축 dump 자료**

**< 계정 생성하기 >**

create user c##typhoon identified by dit

default tablespace users

temporary tablespace temp

quota unlimited on users;

**< 권한 부여 >**

grant connect to c##typoon;

grant resource to c##typoon;

**< 테이블 생성하기 >**

CREATE TABLE Typhoon (

tyno NUMBER(10) CONSTRAINT Typhoon\_tyno\_PK PRIMARY KEY,

tyname VARCHAR2(50) CONSTRAINT Typhoon\_tyname\_NN NOT NULL,

cdate DATE CONSTRAINT Typhoon\_cdate\_NN NOT NULL,

edate DATE ,

rno NUMBER(3) CONSTRAINT Typhoon\_rno\_FK REFERENCES Typhoon\_Rating\_System(rno)

);

CREATE TABLE Impact (

impinfo NUMBER(10) CONSTRAINT Impact\_impinfo\_PK PRIMARY KEY,

misperson NUMBER(6) DEFAULT 0 CONSTRAINT Impact\_misperson\_CHK CHECK (misperson >= 0),

inperson NUMBER(6) DEFAULT 0 CONSTRAINT Impact\_inperson\_CHK CHECK (inperson >= 0),

evaperson NUMBER(6) DEFAULT 0 CONSTRAINT Impact\_evaperson\_CHK CHECK (evaperson >= 0),

prodmg NUMBER(12) DEFAULT 0 CONSTRAINT Impact\_prodmg\_CHK CHECK (prodmg >= 0),

tyno NUMBER(10) CONSTRAINT Impact\_tyno\_FK REFERENCES Typhoon(tyno),

regno NUMBER(10) CONSTRAINT Region\_regno\_FK REFERENCES Region(regno)

);

CREATE TABLE Region (

regno NUMBER(4) CONSTRAINT Region\_regno\_PK PRIMARY KEY,

regname VARCHAR2(20) CONSTRAINT Region\_regname\_NN NOT NULL,

country VARCHAR2(20) CONSTRAINT Region\_country\_NN NOT NULL,

latitude NUMBER(6,3) CONSTRAINT Region\_latitude\_NN NOT NULL

CHECK (latitude BETWEEN -90 AND 90),

longitude NUMBER(6,3) CONSTRAINT Region\_longitude\_NN NOT NULL

CHECK (longitude BETWEEN -180 AND 180)

);

CREATE TABLE Weather (

wno NUMBER(4) CONSTRAINT Weather\_wno\_PK PRIMARY KEY,

highws NUMBER(3) CONSTRAINT Weather\_highws\_CHK CHECK (highws >= 0),

tysize NUMBER(4) CONSTRAINT Weather\_tysize\_CHK CHECK (tysize >= 0),

rainfall NUMBER(4) CONSTRAINT Weather\_rainfall\_CHK CHECK (rainfall >= 0),

lowap NUMBER(4) CONSTRAINT Weather\_lowap\_CHK CHECK (lowap >= 0),

latitude NUMBER(4,1)

CONSTRAINT Weather\_latitude\_CHK CHECK (latitude BETWEEN -90 AND 90),

longitude NUMBER(4,1)

CONSTRAINT Weather\_longitude\_CHK CHECK (longitude BETWEEN -180 AND 180),

section VARCHAR2(20),

tyno NUMBER(10) CONSTRAINT Weather\_tyno\_FK REFERENCES Typhoon(tyno) ON DELETE CASCADE

);

CREATE TABLE Typhoon\_Rating\_System (

rno NUMBER(2) CONSTRAINT TRS\_rno\_PK PRIMARY KEY,

minstd NUMBER(3) CONSTRAINT TRS\_minstd\_NN NOT NULL,

maxstd NUMBER(3) CONSTRAINT TRS\_maxstd\_NN NOT NULL,

rname VARCHAR2(50) CONSTRAINT TRS\_rname\_NN NOT NULL,

CONSTRAINT TRS\_std\_range\_CHK CHECK (minstd <= maxstd)

);

**< 시퀀스 생성하기 >**

create sequence impact\_impno\_seq

start with 1

INCREMENT by 1;

create sequence region\_regno\_seq

start with 1

INCREMENT by 1;

create sequence weather\_wno\_seq

start with 1

INCREMENT by 1;

create sequence trs\_rno\_seq

start with 10

INCREMENT by 10;

**< 테이블 데이터 추가하기 >**

insert into Typhoon\_Rating\_system

values(trs\_rno\_seq.nextval,18, 33, '열대저기압');

insert into Typhoon\_Rating\_system

values(trs\_rno\_seq.nextval,34, 47, '약');

insert into Typhoon\_Rating\_system

values(trs\_rno\_seq.nextval,48, 63, '중');

insert into Typhoon\_Rating\_system

values(trs\_rno\_seq.nextval,64, 84, '강');

insert into Typhoon\_Rating\_system

values(trs\_rno\_seq.nextval,85, 104, '매우 강');

insert into Typhoon\_Rating\_system

values(trs\_rno\_seq.nextval,105,999, '초강력');

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '서울', '대한민국', 37.566, 126.978);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '부산', '대한민국', 35.179, 129.075);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '도쿄', '일본', 35.689, 139.692);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '오사카', '일본', 34.693, 135.502);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '타이페이', '대만', 25.033, 121.565);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '마닐라', '필리핀', 14.599, 120.984);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '홍콩', '중국', 22.319, 114.169);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '베이징', '중국', 39.904, 116.407);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '하노이', '베트남', 21.028, 105.854);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '호치민', '베트남', 10.823, 106.629);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '방콕', '태국', 13.756, 100.501);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '싱가포르', '싱가포르', 1.352, 103.820);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '쿠알라룸푸르', '말레이시아', 3.139, 101.686);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '자카르타', '인도네시아', -6.208, 106.845);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '양곤', '미얀마', 16.866, 96.195);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '뉴델리', '인도', 28.613, 77.209);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '콜롬보', '스리랑카', 6.927, 79.861);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '다카', '방글라데시', 23.810, 90.413);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '카라치', '파키스탄', 24.860, 67.010);

INSERT INTO Region VALUES (region\_regno\_seq.NEXTVAL, '캘커타', '인도', 22.572, 88.364);

INSERT INTO Typhoon VALUES (1, '링링', TO\_DATE('2001-09-01', 'YYYY-MM-DD'), TO\_DATE('2001-09-05', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (2, '펑셴', TO\_DATE('2002-06-16', 'YYYY-MM-DD'), TO\_DATE('2002-06-23', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (3, '매미', TO\_DATE('2003-09-06', 'YYYY-MM-DD'), TO\_DATE('2003-09-11', 'YYYY-MM-DD'), 40);

INSERT INTO Typhoon VALUES (4, '니파탁', TO\_DATE('2004-07-03', 'YYYY-MM-DD'), TO\_DATE('2004-07-06', 'YYYY-MM-DD'), 20);

INSERT INTO Typhoon VALUES (5, '맛사', TO\_DATE('2005-07-28', 'YYYY-MM-DD'), TO\_DATE('2005-08-02', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (6, '우쿵', TO\_DATE('2006-08-13', 'YYYY-MM-DD'), TO\_DATE('2006-08-19', 'YYYY-MM-DD'), 20);

INSERT INTO Typhoon VALUES (7, '피토', TO\_DATE('2007-07-17', 'YYYY-MM-DD'), TO\_DATE('2007-07-21', 'YYYY-MM-DD'), 40);

INSERT INTO Typhoon VALUES (8, '찬홈', TO\_DATE('2008-07-10', 'YYYY-MM-DD'), TO\_DATE('2008-07-14', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (9, '미리내', TO\_DATE('2009-10-02', 'YYYY-MM-DD'), TO\_DATE('2009-10-08', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (10, '메기', TO\_DATE('2010-10-18', 'YYYY-MM-DD'), TO\_DATE('2010-10-24', 'YYYY-MM-DD'), 50);

INSERT INTO Typhoon VALUES (11, '무이파', TO\_DATE('2011-07-01', 'YYYY-MM-DD'), TO\_DATE('2011-07-07', 'YYYY-MM-DD'), 40);

INSERT INTO Typhoon VALUES (12, '담레이', TO\_DATE('2012-11-26', 'YYYY-MM-DD'), TO\_DATE('2012-11-30', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (13, '피토', TO\_DATE('2013-09-18', 'YYYY-MM-DD'), TO\_DATE('2013-09-23', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (14, '마트모', TO\_DATE('2014-07-17', 'YYYY-MM-DD'), TO\_DATE('2014-07-22', 'YYYY-MM-DD'), 40);

INSERT INTO Typhoon VALUES (15, '노을', TO\_DATE('2015-10-13', 'YYYY-MM-DD'), TO\_DATE('2015-10-20', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (16, '차바', TO\_DATE('2016-07-02', 'YYYY-MM-DD'), TO\_DATE('2016-07-10', 'YYYY-MM-DD'), 40);

INSERT INTO Typhoon VALUES (17, '독수리', TO\_DATE('2017-08-14', 'YYYY-MM-DD'), TO\_DATE('2017-08-21', 'YYYY-MM-DD'), 50);

INSERT INTO Typhoon VALUES (18, '쁘라삐룬', TO\_DATE('2018-07-11', 'YYYY-MM-DD'), TO\_DATE('2018-07-16', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (19, '다나스', TO\_DATE('2019-07-14', 'YYYY-MM-DD'), TO\_DATE('2019-07-19', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (20, '낭카', TO\_DATE('2020-10-10', 'YYYY-MM-DD'), TO\_DATE('2020-10-16', 'YYYY-MM-DD'), 40);

INSERT INTO Typhoon VALUES (21, '루핏', TO\_DATE('2021-09-06', 'YYYY-MM-DD'), TO\_DATE('2021-09-09', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (22, '차바', TO\_DATE('2022-07-02', 'YYYY-MM-DD'), TO\_DATE('2022-07-08', 'YYYY-MM-DD'), 40);

INSERT INTO Typhoon VALUES (23, '란', TO\_DATE('2023-08-01', 'YYYY-MM-DD'), TO\_DATE('2023-08-05', 'YYYY-MM-DD'), 30);

INSERT INTO Typhoon VALUES (24, '풀라산', TO\_DATE('2024-09-15', 'YYYY-MM-DD'), TO\_DATE('2024-09-20', 'YYYY-MM-DD'), 20);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 20, 30, 100000, 1, 1);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 0, 5, 10, 5000, 1, 2);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 25, 50, 200000, 2, 3);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 5, 15, 20, 150000, 2, 4);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 8, 10, 25, 10000, 3, 5);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 20, 30, 50, 300000, 3, 6);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 3, 7, 15, 5000, 4, 7);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 2, 10, 12, 1000, 4, 8);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 40, 80, 500000, 5, 9);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 6, 20, 35, 200000, 5, 10);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 4, 15, 20, 150000, 6, 11);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 7, 25, 30, 100000, 6, 12);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 20, 45, 250000, 7, 13);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 5, 10, 25, 75000, 7, 14);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 18, 40, 60, 400000, 8, 15);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 20, 30, 70, 500000, 8, 16);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 35, 50, 300000, 9, 17);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 25, 40, 200000, 9, 18);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 25, 50, 75, 600000, 10, 19);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 30, 45, 250000, 10, 20);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 8, 18, 30, 120000, 11, 1);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 5, 15, 20, 75000, 11, 2);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 20, 40, 60, 500000, 12, 3);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 35, 45, 300000, 12, 4);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 20, 40, 200000, 13, 5);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 18, 25, 50, 400000, 13, 6);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 5, 10, 15, 50000, 14, 7);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 7, 15, 20, 100000, 14, 8);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 25, 50, 100, 700000, 15, 9);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 30, 50, 300000, 15, 10);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 4, 12, 18, 85000, 16, 11);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 25, 35, 200000, 16, 12);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 20, 40, 70, 600000, 17, 13);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 5, 15, 25, 100000, 17, 14);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 18, 35, 60, 400000, 18, 15);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 25, 50, 300000, 18, 16);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 20, 40, 200000, 19, 17);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 30, 50, 250000, 19, 18);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 30, 60, 90, 700000, 20, 19);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 28, 40, 220000, 20, 20);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 20, 25, 75000, 21, 1);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 5, 10, 15, 50000, 21, 2);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 20, 40, 60, 500000, 22, 3);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 25, 35, 200000, 22, 4);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 20, 40, 200000, 23, 5);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 30, 50, 300000, 23, 6);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 8, 15, 20, 100000, 24, 7);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 18, 25, 120000, 24, 8);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 22, 50, 80, 600000, 1, 9);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 28, 45, 250000, 1, 10);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 6, 15, 25, 75000, 2, 11);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 8, 12, 18, 85000, 2, 12);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 20, 35, 60, 400000, 3, 13);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 25, 30, 120000, 3, 14);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 18, 40, 50, 300000, 4, 15);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 28, 40, 220000, 4, 16);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 8, 18, 30, 120000, 5, 17);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 22, 40, 200000, 5, 18);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 25, 50, 75, 600000, 6, 19);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 12, 30, 40, 220000, 6, 20);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 8, 20, 30, 150000, 7, 1);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 25, 35, 200000, 7, 2);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 20, 40, 70, 500000, 8, 3);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 15, 30, 50, 300000, 8, 4);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 10, 20, 40, 200000, 9, 5);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 18, 35, 50, 400000, 9, 6);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 6, 12, 18, 85000, 10, 7);

INSERT INTO Impact VALUES (impact\_impno\_seq.NEXTVAL, 5, 10, 15, 50000, 10, 8);

-- 태풍 '링링' (2001-09-01 ~ 2001-09-05)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 150, 300, 970, 35.5, 128.2, 'Start',1);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 160, 350, 960, 35.8, 128.4, 'Middle',1);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 170, 400, 950, 36.0, 128.6, 'End',1);

-- 태풍 '펑셴' (2002-06-16 ~ 2002-06-23)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 110, 130, 250, 980, 34.2, 126.5, 'Start',2);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 140, 300, 970, 34.5, 126.7, 'Middle',2);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 150, 350, 960, 34.8, 126.9, 'End',2);

-- 태풍 '매미' (2003-09-06 ~ 2003-09-11)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 140, 280, 975, 33.7, 130.4, 'Start',3);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 160, 330, 965, 33.9, 130.6, 'Middle',3);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 170, 380, 955, 34.1, 130.8, 'End',3);

-- 태풍 '니파탁' (2004-07-03 ~ 2004-07-06)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 100, 120, 230, 985, 33.5, 134.0, 'Start',4);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 130, 270, 975, 33.7, 134.2, 'Middle',4);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 140, 320, 965, 33.9, 134.4, 'End',4);

-- 태풍 '맛사' (2005-07-28 ~ 2005-08-02)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 110, 130, 240, 980, 32.7, 131.2, 'Start',5);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 140, 290, 970, 32.9, 131.4, 'Middle',5);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 150, 340, 960, 33.1, 131.6, 'End',5);

-- 태풍 '우쿵' (2006-08-13 ~ 2006-08-19)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 100, 120, 200, 985, 33.0, 134.8, 'Start',6);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 130, 250, 975, 33.2, 135.0, 'Middle',6);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 140, 300, 965, 33.4, 135.2, 'End',6);

-- 태풍 '피토' (2007-07-17 ~ 2007-07-21)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 150, 270, 980, 34.0, 126.3, 'Start',7);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 160, 320, 970, 34.2, 126.5, 'Middle',7);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 170, 370, 960, 34.4, 126.7, 'End',7);

-- 태풍 '찬홈' (2008-07-10 ~ 2008-07-14)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 140, 260, 975, 33.8, 128.9, 'Start',8);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 150, 310, 965, 34.0, 129.1, 'Middle',8);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 160, 360, 955, 34.2, 129.3, 'End',8);

-- 태풍 '미리내' (2009-10-02 ~ 2009-10-08)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 110, 130, 220, 980, 35.0, 128.0, 'Start',9);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 140, 270, 970, 35.2, 128.2, 'Middle',9);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 150, 320, 960, 35.4, 128.4, 'End',9);

-- 태풍 '메기' (2010-10-18 ~ 2010-10-24)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 160, 290, 975, 36.0, 129.5, 'Start',10);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 170, 340, 965, 36.2, 129.7, 'Middle',10);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 200, 180, 400, 955, 36.4, 129.9, 'End',10);

-- 태풍 '무이파' (2011-07-01 ~ 2011-07-07)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 140, 260, 980, 34.3, 130.4, 'Start',11);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 150, 310, 970, 34.5, 130.6, 'Middle',11);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 160, 360, 960, 34.7, 130.8, 'End',11);

-- 태풍 '담레이' (2012-11-26 ~ 2012-11-30)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 140, 250, 980, 33.2, 128.0, 'Start',12);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 150, 300, 970, 33.4, 128.2, 'Middle',12);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 160, 350, 960, 33.6, 128.4, 'End',12);

-- 태풍 '피토' (2013-09-18 ~ 2013-09-23)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 150, 270, 980, 34.0, 126.7, 'Start',13);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 160, 320, 970, 34.2, 126.9, 'Middle',13);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 170, 370, 960, 34.4, 127.1, 'End',13);

-- 태풍 '마트모' (2014-07-17 ~ 2014-07-22)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 160, 290, 975, 33.9, 129.5, 'Start',14);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 170, 340, 965, 34.1, 129.7, 'Middle',14);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 200, 180, 400, 955, 34.3, 129.9, 'End',14);

-- 태풍 '노을' (2015-10-13 ~ 2015-10-20)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 140, 260, 980, 35.2, 128.0, 'Start',15);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 150, 310, 970, 35.4, 128.2, 'Middle',15);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 160, 360, 960, 35.6, 128.4, 'End',15);

-- 태풍 '차바' (2016-07-02 ~ 2016-07-10)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 150, 280, 980, 34.7, 129.0, 'Start',16);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 160, 330, 970, 34.9, 129.2, 'Middle',16);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 170, 380, 960, 35.1, 129.4, 'End',16);

-- 태풍 '독수리' (2017-08-14 ~ 2017-08-21)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 160, 290, 975, 35.0, 130.0, 'Start',17);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 170, 340, 965, 35.2, 130.2, 'Middle',17);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 200, 180, 390, 955, 35.4, 130.4, 'End',17);

-- 태풍 '쁘라삐룬' (2018-07-11 ~ 2018-07-16)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 110, 130, 240, 980, 33.8, 127.5, 'Start',18);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 140, 290, 970, 34.0, 127.7, 'Middle',18);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 150, 340, 960, 34.2, 127.9, 'End',18);

-- 태풍 '다나스' (2019-07-14 ~ 2019-07-19)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 140, 260, 980, 33.9, 127.2, 'Start',19);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 150, 310, 970, 34.1, 127.4, 'Middle',19);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 160, 360, 960, 34.3, 127.6, 'End',19);

-- 태풍 '낭카' (2020-10-10 ~ 2020-10-16)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 150, 280, 980, 34.6, 128.8, 'Start',20);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 160, 330, 970, 34.8, 129.0, 'Middle',20);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 170, 380, 960, 35.0, 129.2, 'End',20);

-- 태풍 '루핏' (2021-09-06 ~ 2021-09-09)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 110, 130, 230, 985, 35.3, 128.5, 'Start',21);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 140, 140, 280, 975, 35.5, 128.7, 'Middle',21);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 150, 330, 965, 35.7, 128.9, 'End',21);

-- 태풍 '차바' (2022-07-02 ~ 2022-07-08)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 140, 240, 980, 34.4, 129.6, 'Start',22);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 150, 290, 970, 34.6, 129.8, 'Middle',22);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 160, 340, 960, 34.8, 130.0, 'End',22);

-- 태풍 '란' (2023-08-01 ~ 2023-08-05)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 130, 150, 270, 980, 33.7, 128.4, 'Start',23);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 160, 160, 320, 970, 33.9, 128.6, 'Middle',23);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 180, 170, 370, 960, 34.1, 128.8, 'End',23);

-- 태풍 '풀라산' (2024-09-15 ~ 2024-09-20)

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 120, 140, 250, 980, 33.6, 129.1, 'Start',24);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 150, 150, 300, 970, 33.8, 129.3, 'Middle',24);

INSERT INTO Weather VALUES (weather\_wno\_seq.NEXTVAL, 170, 160, 350, 960, 34.0, 129.5, 'End',24);