**Lab Exercises**

**Create Tables**

CREATE TABLE employees(

id SERIAL PRIMARY KEY NOT NULL,

first\_name VARCHAR(30),

last\_name VARCHAR(50),

hiring\_date DATE DEFAULT '2023-01-01',

salary NUMERIC(10,2),

devices\_number INT

);

CREATE TABLE departments(

id SERIAL PRIMARY KEY NOT NULL,

name VARCHAR(50),

code CHARACTER(3),

description TEXT

);

CREATE TABLE issues(

id SERIAL PRIMARY KEY NOT NULL,

description VARCHAR(150),

date DATE,

start TIMESTAMP

);

**Alter Tables**

ALTER TABLE employees

ADD COLUMN middle\_name VARCHAR(50)

;

**Add Constraints**

ALTER TABLE employees

ALTER COLUMN salary SET NOT NULL,

ALTER COLUMN salary SET DEFAULT 0,

ALTER COLUMN hiring\_date SET NOT NULL

;

**Modify Columns**

ALTER TABLE employees

ALTER COLUMN middle\_name TYPE VARCHAR(100)

;

**Homework Exercises**

**Create a Table**

CREATE TABLE minions(

id SERIAL PRIMARY KEY,

name VARCHAR(30),

age INT

);

**Rename the Table**

ALTER TABLE minions

RENAME TO minions\_info;

**Alter the Table**

ALTER TABLE minions\_info

ADD COLUMN code CHAR(4),

ADD COLUMN task TEXT,

ADD COLUMN salary DECIMAL(8,3)

;

**Rename Column**

ALTER TABLE minions\_info

RENAME COLUMN salary TO banana

;

**Add New Columns**

ALTER TABLE minions\_info

ADD COLUMN email VARCHAR(20),

ADD COLUMN equipped BOOLEAN NOT NULL

;

**Create ENUM Type**

CREATE TYPE type\_mood

AS ENUM (

'happy',

'relaxed',

'stressed',

'sad'

);

ALTER TABLE minions\_info

ADD COLUMN mood type\_mood

;

**Set Default**

ALTER TABLE minions\_info

ALTER COLUMN age SET DEFAULT 0,

ALTER COLUMN name SET DEFAULT '',

ALTER COLUMN code SET DEFAULT ''

;

**Add Constraints**

ALTER TABLE minions\_info

ADD CONSTRAINT unique\_containt UNIQUE (

id,

email

),

ADD CONSTRAINT banana\_check CHECK (banana > 0)

;

**Change Column’s Data Type**

ALTER TABLE minions\_info

ALTER COLUMN task TYPE VARCHAR(150);

**Drop Constraint**

ALTER TABLE minions\_info

ALTER COLUMN equipped DROP NOT NULL;

**Remove Column**

ALTER TABLE minions\_info

DROP COLUMN age;

**Table Birthdays**

CREATE TABLE IF NOT EXISTS minions\_birthdays (

id INT GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

name VARCHAR(50),

date\_of\_birth DATE,

age INT,

present VARCHAR(100),

party TIMESTAMPTZ

);

**Insert Into**

INSERT INTO minions\_info(name, code, task, banana, email, equipped, mood)

VALUES

('Mark', 'GKYA', 'Graphing Points', 3265.265, 'mark@minion.com', false, 'happy'),

('Mel', 'HSK', 'Science Investigation', 54784.996, 'mel@minion.com', true, 'stressed'),

('Bob', 'HF', 'Painting', 35.652, 'bob@minion.com', true, 'happy'),

('Darwin', 'EHND', 'Create a Digital Greeting', 321.958, 'darwin@minion.com', false, 'relaxed'),

('Kevin', 'KMHD', 'Construct with Virtual Blocks', 35214.789, 'kevin@minion.com', false, 'happy'),

('Norbert', 'FEWB', 'Testing', 3265.500, 'norbert@minion.com', true, 'sad'),

('Donny', 'L', 'Make a Map', 8.452, 'donny@minion.com', true, 'happy')

;