**Build Database (PostgresSQL 8.0+)**

CREATE TABLE public."PERSON"

(

"FIRST\_NAME" text COLLATE pg\_catalog."default",

"LAST\_NAME" text COLLATE pg\_catalog."default",

"PER\_ID" bigint NOT NULL,

"PWD" text COLLATE pg\_catalog."default",

"SSN" bigint,

"UID" text COLLATE pg\_catalog."default",

"BIRTH\_DAY" date,

"PERT\_ID" bigint,

"ADD\_ID" bigint,

CONSTRAINT "PERSON\_pkey" PRIMARY KEY ("PER\_ID")

)

TABLESPACE pg\_default;

ALTER TABLE public."PERSON" OWNER to postgres;

**A screenshot of a computer

Description automatically generated**

CREATE TABLE public."PERSON\_TYPE"

(

"PERT\_ID" bigint NOT NULL,

"PERSON\_TYPE" text COLLATE pg\_catalog."default",

CONSTRAINT "PERSON\_TYPE\_pkey" PRIMARY KEY ("PERT\_ID")

)

TABLESPACE pg\_default;

ALTER TABLE public."PERSON\_TYPE" OWNER to postgres;

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CREATE TABLE public."ADDRESS"

(

"ADD\_ID" bigint,

"STREET" text COLLATE pg\_catalog."default",

"CITY" text COLLATE pg\_catalog."default",

"STATE" text COLLATE pg\_catalog."default",

"ZIP" bigint

)

TABLESPACE pg\_default;

ALTER TABLE public."ADDRESS" OWNER to postgres;

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CREATE TABLE public."PHONES"

(

"PH\_ID" bigint NOT NULL,

"PTY\_ID" bigint,

"PHONE" text COLLATE pg\_catalog."default",

"PER\_ID" bigint,

"PH\_TYPE" text COLLATE pg\_catalog."default",

CONSTRAINT "PHONES\_pkey" PRIMARY KEY ("PH\_ID")

)

TABLESPACE pg\_default;

ALTER TABLE public."PHONES" OWNER to postgres;

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CREATE TABLE public."PHONE\_TYPE"

(

"PTY\_ID" bigint NOT NULL,

"PHONE\_TYPE" text COLLATE pg\_catalog."default",

CONSTRAINT "PHONE\_TYPE\_pkey" PRIMARY KEY ("PTY\_ID")

)

TABLESPACE pg\_default;

ALTER TABLE public."PHONE\_TYPE" OWNER to postgres;

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CREATE TABLE public."EMGCONTACT"

(

"ECT\_ID" bigint NOT NULL,

"CONTACT\_NAME" text COLLATE pg\_catalog."default",

"CONTACT\_RELATION" text COLLATE pg\_catalog."default",

"CONTACT\_EMAIL" text COLLATE pg\_catalog."default",

"CONTACT\_PHONE" text COLLATE pg\_catalog."default",

"PER\_ID" bigint,

CONSTRAINT "EMGCONTACT\_pkey" PRIMARY KEY ("ECT\_ID"),

CONSTRAINT fk\_perid\_perid FOREIGN KEY ("PER\_ID")

REFERENCES public."PERSON" ("PER\_ID") MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION

NOT VALID

)

TABLESPACE pg\_default;

ALTER TABLE public."EMGCONTACT" OWNER to postgres;

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**A screenshot of a computer

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CREATE SEQUENCE public."SEQ\_ADDRESS"

INCREMENT 1

START 1

MINVALUE 1

MAXVALUE 10

CACHE 1;

ALTER SEQUENCE public."SEQ\_ADDRESS" OWNER TO postgres;

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**Build Spring Boot Microservice**

1.Use Spring initializer to create Microservice

**Project: Maven Language: Java Spring: 3.4 Packaging: Jar Java: 21**

**Dependencies: Spring Web Spring Boot DevTools Spring Boot Actuator Spring Data JPA PostgreSQL Driver**

2. Project layout

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**application.properties**

Please google search for the property content:

JDBC connection, Hibernate configuration, Spring log level

**PersonController**

@GetMapping(value = "/personAll")

@GetMapping(value = "/personByUidandPwd/{uid}/{pwd}")

@GetMapping(value = "/personBySsn/{ssn}")

@PostMapping(value = "/postPerson")

@DeleteMapping(value = "/deletePerson/{id}")

**@DeleteMapping(value = "/deletePerson/{id}")**

@GetMapping(value = "/personTypes")

@GetMapping(value = "/personTypeByType/{type}")

**PhoneTypeController**

@GetMapping(value = "/phoneTypes")

**Build NJIT UI**

1. Env: Nodejs 22.11 Angular 18 npm 10.9.4. tsc 5.3.3 Libaray: npm i @angular/material /bootstrap

2. Using Angular 18 as Framework (Typescript)

3. Using the Bootstrap as fronted toolkit (HTML, CSS, etc.)

4. Using the Angular Material as design component (Build & Use Modules)

Home Page (before login)

A screenshot of a computer screen

Description automatically generated

Login Page

A screenshot of a login screen

Description automatically generated

Profile List Page (after login)

A screenshot of a computer

Description automatically generated

Create Profile

A screenshot of a computer

Description automatically generated

Update Profile

A screenshot of a computer

Description automatically generated

Logout Page

A screenshot of a website

Description automatically generated

**Build NJIT Microservice**