Intro To Data Engineering

Assignment 1

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Question 1: Give the expression in the relational algebra.

1. **Find the ID and name of each employee who works for “BigBank”**

Πperson\_name(σcompany\_name = ‘BigBank’(works))

1. **Find the ID, name, and city of residence of each employee who works for “BigBank”**

Πperson\_name,city(σcompany\_name = ‘BigBank’(works ⋈ employee))

1. **Find the ID, name, street address, and city of residence of each employee who works for “BigBank” and earns more than $10000**

Πperson\_name,street,city(σcompany\_name = ‘BigBank’ Λ salary>10000 (works ⋈ employee)

1. **Find the ID and name of each employee in this database who lives in the same city as the company for which she or he works.**

Πperson\_name(σemployee.city=company.city(works ⋈ employee ⋈ company))