



SELECT "Hello World!"

sql_select("Hello World!")

sql_query() |> sql_select("Hello World!")



SELECT p.mrn FROM patient p

p = sql_alias("patient")

sql_join(p) |> sql_select(p.mrn)

p = sql_alias("patient")

p |> sql_select(p.mrn)

(p = sql_from("patient")) |> sql_select(p.mrn)



SELECT p.mrn FROM patient p

(p = sql_from("patient")) |> sql_select(p.mrn)



SELECT p.mrn, e.date

FROM patient p

JOIN encounter e ON (p.id = e.patient_id)

p = sql_alias("patient")

e = sql_alias("encounter")

sql_from(p) |> sql_join(e, p.id, == e.patient_id) |> sql_select(p.mrn, e.date)

p = sql_alias(catalog["public"]["patient"])

e = sql_alias(catalog["public"]["encounter"])

sql_from(p) |> sql_join(e, autojoin=p) |> sql_select(p.mrn, e.date)

p = sql_alias("patient")

e = sql_alias("encounter")

p |> sql_join(e, p.id, == e.patient_id) |> sql_select(p.mrn, e.date)

p = sql_alias("patient")

e = sql_alias("encounter")

sql_from(p) |> sql_join(e, p.id, == e.patient_id) |> sql_select(p.mrn) |> sql_select(e.date)



SELECT p.mrn, e.date

FROM patient p

JOIN encounter e ON (p.id = e.patient_id)

p = From("patient")

e = From("encounter")

j = Join(p, e, p.id, == e.patient_id)

Select(j, p.mrn, e.date)

sql_from((p = sql_from("patient")) |> sql_join((e = sql_alias("encounter")), p.id, == e.patient_id) |> sql_select(p.mrn, e.date))



SELECT p.sex, COUNT(p)

FROM patient p

GROUP BY p.sex

p = sql_alias("patient")

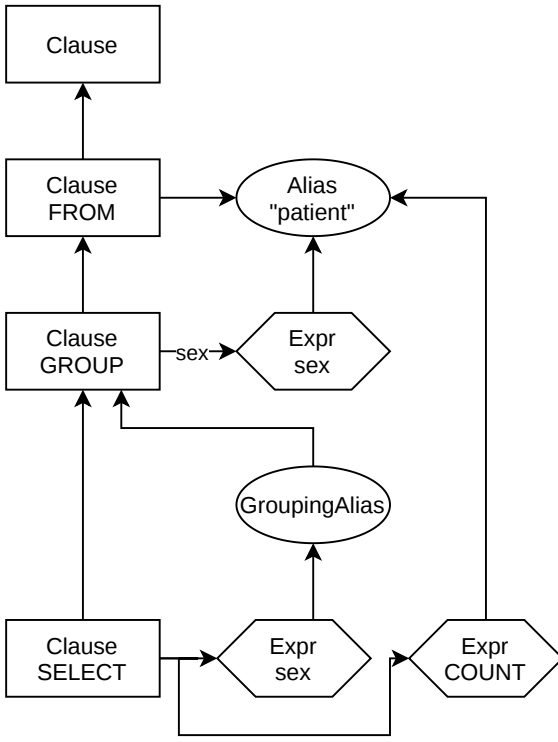
g = sql_from(p) |> sql_group(sex = p.sex)

g |> sql_select(g.sex, sql_count(p))

p = From("patient")

g = Group(p, sex = p.sex)

Select(g, g.sex, Count(p))



SELECT p.mrn, COALESCE(g.n_e, 0)

FROM patient p

LEFT JOIN (

SELECT e.patient_id, COUNT(e) AS n_e

FROM encounter e

GROUP BY e.patient_id) g ON (p.id = g.patient_id)

p = From("patient")

e = From("encounter")

g = Group(e, patient_id = e.patient_id)

j = LeftJoin(p, g, p.id, == g.patient_id, omit_if_unused=true)

Select(j, p.mrn, Coalesce(Count(e), 0))

p = From("patient")

e = From("encounter")

g = Group(e, patient_id = e.patient_id)

gs = Select(g, patient_id = g.patient_id, n = Count(e))

j = LeftJoin(p, gs, p.id, == gs.patient_id)

Select(j, p.mrn, Coalesce(gs.n, 0))

p = From("patient")

e = From("encounter")

g = Group(e, patient_id = e.patient_id, summarize=(; n = Count(e)))

j = LeftJoin(p, g, p.id, == g.patient_id)

Select(j, p.mrn, Coalesce(g.n, 0))

SELECT p.mrn

FROM patient p

WHERE p.sex = 'male'

p = From("patient")

w = Where(p, p.sex, == "male")

Select(w, p.mrn)

p = From("patient", columns=["mrn", "sex"])

w = Where(p, Ref(1, 2), == "male", select=[Ref(1,1)])

Select(w, select=[Ref(1,1)])

patient_tbl = Table("patient", [{"id", Int}, {"sex", String}, {"mrn", String}])

encounter_tbl = Table("encounter", [{"id", Int}, {"patient_id", Int}, {"date", Date}])

auto_connect(patient_tbl, encounter_tbl, [{"id", "patient_id"}])

p = From(patient_tbl)

e = From(encounter_tbl)

j = LeftJoin(p, e)

Select(j, p.mrn, e.date)



SELECT p.mrn, EXTRACT(YEAR FROM e.date)
FROM patient p
JOIN encounter e
ON (p.id = e.patient_id)
WHERE p.sex = 'male'

p = From(patient)
e = From(encounter)
j = Join(p, e, p.id, := e.patient_id)
w = Where(j, p.sex, := 'male')
s = Select(w, mrn = p.mrn, year = Year(e.date))



p = From(patient)
p_ = Select(p, id = Const(:id), _sex = Const(:sex), _mrn = Const(mrn))
e = From(encounter)
e_ = Select(e, _patient_id = Const(patient_id), _date = Const(:date))
j = Join(p_, e_, p_.id, := e_.patient_id)
j_ = Select(j, _mrn = p_.mrn, _sex = p_.sex, _date = e_.date)
w = Where(j_, j_.sex, := 'male')
w_ = Select(w, mrn = j_.mrn, _date = j_.date)
s = Select(w_, mrn = w_.mrn, year = Year(w_.date))



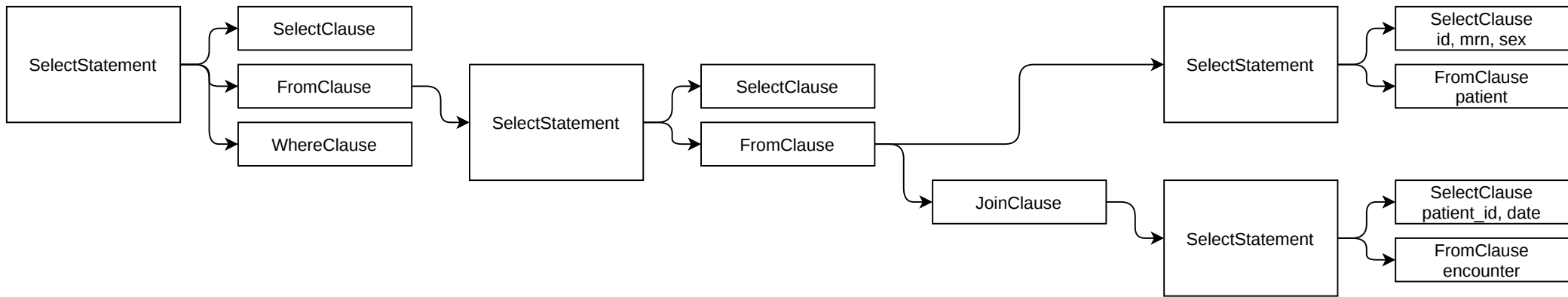
SELECT c.person_id, c.peer_id, c.timestamp, c.distance
FROM contact c

For each pair of persons, find the contact interval when there were detected at least once in a minute in a distance of less than 5 meters.



Clause
:JOIN

Clause
:JOIN





```
WITH RECURSIVE X AS (  
  SELECT 1 AS N  
  UNION ALL  
  SELECT ...  
  ...  
  FROM X  
  ...  
  FROM X)
```





SELECT ... FROM (SELECT) AS ...



SELECT ... FROM (SELECT ...) AS ... WHERE ...



SELECT ... FROM (SELECT ... FROM ...) AS ... WHERE ...



SELECT ... FROM (SELECT WHERE ...) AS ... WHERE ...



SELECT ... FROM (SELECT JOIN ...) AS ... WHERE ...



