

Fire Event Report

UNF:

FE_REPORT(fe_id, fe_name, date_started, lives_lost, total_dam, (prop_id, build_no, build_class, dam_cost, total_destroy, ins_cov))

1NF:

FE_REPORT(fe_id, fe_name, date_started, lives_lost, total_dam)

FE_BUILD_DAM(fe_id, prop_id, build_no, build_class, dam_cost, total_destroy, ins_cov)

Partial dependencies:

prop_id, build_no → build_class

2NF:

FE_REPORT(fe_id, fe_name, date_started, lives_lost, total_dam)

FE_BUILD_DAM(fe_id, prop_id, build_no, dam_cost, total_destroy, ins_cov)

BUILDING(prop_id, build_no, build_class)

Transitive dependencies:

None

3NF:

FE_REPORT(fe_id, fe_name, date_started, lives_lost, total_dam)

FE_BUILD_DAM(fe_id, prop_id, build_no, dam_cost, total_destroy, ins_cov)

BUILDING(prop_id, build_no, build_class)

Full dependencies:

fe_id → fe_name, date_started, lives_lost, total_dam

fe_id, prop_id, build_no → dam_cost, total_destroy, ins_cov

prop_id, build_no → build_class

Building Damage Assessment Visit Report

UNF:

BUILD_DAM_ASS(prop_id, prop_street, prop_town, prop_postcode, lga_code, lga_name, build_no, lga_build_value, build_class, fe_id, ass_id, ass_gname, ass_fname, (datetime_arrive, datetime_depart))

1NF:

BUILD_DAM_ASS(prop_id, prop_street, prop_town, prop_postcode, lga_code, lga_name, build_no, lga_build_value, build_class, fe_id, ass_id, ass_gname, ass_fname)

BUILD_DAM_ASS_VISIT(prop_id, build_no, fe_id, datetime_arrive, datetime_depart)

Partial dependencies:

prop_id → prop_street, prop_town, prop_postcode, lga_code, lga_name

prop_id, build_no → lga_build_value, build_class

2NF:

BUILD_DAM_ASS(prop_id, build_no, fe_id, ass_id, ass_gname, ass_fname)

PROPERTY(prop_id, prop_street, prop_town, prop_postcode, lga_code, lga_name)

BUILDING(prop_id, build_no, lga_build_value, build_class)

BUILD_DAM_ASS_VISIT(prop_id, build_no, fe_id, datetime_arrive, datetime_depart)

Transitive dependencies:

ass_id → ass_gname, ass_fname

lga_code → lga_name

3NF:

BUILD_DAM_ASS(prop_id, build_no, fe_id, ass_id)

PROPERTY(prop_id, prop_street, prop_town, prop_postcode, lga_code)

LGA(lga_code, lga_name)

BUILDING(prop_id, build_no, lga_build_value, build_class)

ASSESSOR(ass_id, ass_gname, ass_fname)

BUILD_DAM_ASS_VISIT(prop_id, build_no, fe_id, datetime_arrive, datetime_depart)

Full dependencies:

prop_id, build_no, fe_id → ass_id

prop_id → prop_street, prop_town, prop_postcode, lga_code

lga_code → lga_name

prop_id, build_id → lga_build_value, build_class

ass_id → ass_gname, ass_fname

prop_id, build_no, fe_id, datetime_arrive → datetime_depart

Collected 3NF Relations

1. FE_REPORT(fe_id, fe_name, date_started, lives_lost, total_dam)
2. FE_BUILD_DAM(fe_id, prop_id, build_no, dam_cost, total_destroy, ins_cov)
3. BUILDING(prop_id, build_no, build_class)
4. BUILD_DAM_ASS(prop_id, build_no, fe_id, ass_id)
5. PROPERTY(prop_id, prop_street, prop_town, prop_postcode, lga_code)
6. LGA(lga_code, lga_name)
7. BUILDING(prop_id, build_no, lga_build_value, build_class)
8. ASSESSOR(ass_id, ass_gname, ass_fname)
9. BUILD_DAM_ASS_VISIT(prop_id, build_no, fe_id, datetime_arrive, datetime_depart)

Attribute Synthesis

1.

FIRE_EVENT(fe_id, fe_name, fe_start_date, fe_lives_lost, fe_total_dam)

2. & 4.

FE_BUILD_DAMAGE(fe_id, prop_id, build_no, febd_dam_cost, febd_total_destroy, ins_cov, ass_id)

3. & 7.

BUILDING(prop_id, build_no, build_class, build_lga_value)

5.

PROPERTY(prop_id, prop_street, prop_town, prop_postcode, lga_code)

6.

LOCAL_GOV_AREA(lga_code, lga_name)

8.

ASSESSOR(ass_id, ass_gname, ass_fname)

9.

BUILD_DAM_VISIT(prop_id, build_no, fe_id, bdv_datetime_arrive, bdv_datetime_depart)