Data Dictionary: Toronto Fire Incidents
Portfolio Analysis
Kevin Badali

incidents_fact_table
Central fact table for all main dimension tables — *Fact table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
fire_fk	varchar(15)		✓	✓		-
tfs_fk	varchar(15)		✓	✓		-
location_fk	varchar(15)		✓	✓		-
civilian_impact_fk	varchar(15)		✓	✓		-
sprinkler_systems_fk	varchar(15)		✓	✓		-
smoke_alarms_fk	varchar(15)		✓	✓		-
fire_alarms_fk	varchar(15)		✓	✓		-
damages_fk	varchar(15)		✓	✓		-

fire_details
Details regarding the actual fire — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
area_of_origin_fk	varchar(5)		✓		null	-
level_of_origin	varchar(5)				null	Which floor level the fire originated on
exposure_fires	varchar(5)		✓		null	Number of exposure fires associated with this fire
extent_of_fire_fk	varchar(5)		✓		null	-
final_incident_type_fk	varchar(5)		✓			-
ignition_source_fk	varchar(5)		✓		null	-
material_first_ignited_fk	varchar(5)		✓		null	-
possible_cause_fk	varchar(5)		✓		null	-
smoke_spread_fk	varchar(5)		✓		null	-

smoke_alarms

Details about the smoke alarms at location of the fire — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
sa_fire_origin_fk	varchar(5)		✓		null	-
sa_alarm_failure_fk	varchar(5)		✓		null	-
sa_alarm_type_fk	varchar(5)		✓		null	-
sa_impact_evacuation_fk	varchar(5)		✓		null	-

fire_alarms

Details about the fire alarms at location of the fire — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
impact_evacuation_fk	varchar(5)		✓		null	-
fa_operation_fk	varchar(5)		✓		null	-
fa_presence_fk	varchar(5)		✓		null	-

sprinkler_systems

Details about the sprinkler systems at location of the fire — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
sp_operation_fk	varchar(5)		✓		null	-
sp_presence_fk	varchar(5)		✓		null	-

civilian_impact

Details about the civilian impact the fire had — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
casualties	int				0	Number of civilian casualties from fire
people_rescued	int				0	Number of civilians rescued from fire
est_people_displaced	int				0	Estimated number of civilians displaced by the fire

damages

Damages caused by the fire — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
building_status_fk	varchar(5)		✓		null	-
building_impact_fk	varchar(5)		✓		null	-
est_dollar_loss	int				0	Estimated monetary loss from fire (in CAD dollars)

toronto_fire_services

Details about the Toronto Fire Services response to the fire — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
agent_app_deferred	datetime			✓		Time that a fire suppression agent was applied to the fire, or the time it was decided to defer the agent application.
initial_cad_event_fk	varchar(5)		✓		null	-
method_fire_control_fk	varchar(5)		✓		null	-
responding_apparatus	int				0	Number of fire service appartus responded to the fire (i.e. fire trucks, etc.)
responding_personnel	int				0	Number of personnel that responded to the fire
tfs_arrival_time	datetime			✓		Time that Toronto Fire Services arrived at the scene of the fire
fire_controlled_time	datetime			✓		Time that the fire was under control
last_tfs_unit_clear_time	datetime			✓		Time of departure for the last TFS personnel on scene
firefighter_casualties	int				0	Number of fire fighter casualties as a result of the fire

location

Details about the location the fire took place at — *Main Dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(15)	✓		✓		-
incident_station_area	int			✓		TFS Station closest to the fire
incident_ward	int			✓		City ward that the fire occurred in
intersection	varchar(500)			✓		Nearest major/minor intersection to the fire
latitude	double			✓		Latitude of fire location
longitutde	double			✓		Longitude of fire location
property_use_fk	varchar(5)		✓		null	-

fire_alarms_system_impact

Details about the impact fire alarms had on the incident — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
fasi_desc	varchar(500)			✓		-

fire_alarms_system_operation

Description of the operation of the fire alarms — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
faso_desc	varchar(500)			✓		-

final_incident_type

Description of the final incident type recorded for the fire incident — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
incident_type_desc	varchar(500)			✓		-

fire_alarms_system_presence
Description of the fire alarm presence at site of the fire incident
Sub-dimension Table

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
fasp_desc	varchar(500)			✓		-

ignition_source
Description of the fire incident's ignition source
Sub-dimension Table

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
ignition_desc	varchar(500)			✓		-

initial_cad_event
Description of the first Computer Aided Dispatch event type
Sub-dimension Table

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
cad_desc	varchar(500)			✓		-

material_first_ignited
Description of the material the fire ignited from
Sub-dimension Table

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
mfi_desc	varchar(500)			✓		-

method_fire_control
Description of the method the TFS used to control the fire
Sub-dimension Table

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
mfc_desc	varchar(500)			✓		-

possible_cause
Description of a fire incident's possible cause — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
pc_desc	varchar(500)			✓		-

property_use
Description of the what the property was used for prior to the fire incident — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
property_use_desc	varchar(500)			✓		-

smoke_alarm_at_fire_origin
Description of the smoke alarms closest to the origin point of the fire incident — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
sa_desc	varchar(500)			✓		-

smoke_alarm_at_fire_origin_failure
Description of any smoke alarm failures closest to origin point of the fire — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
sa_failure_desc	varchar(500)			✓		-

smoke_alarm_at_fire_origin_alarm_type
Description of the alarm issued by the smoke alarm closest to the origin point of the fire incident — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
sa_type_desc	varchar(500)			✓		-

smoke_alarm_impact_evacuation

Description of the impact the smoke alarm had on civilian evactuation from the fire incident — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
sa_imp_evac_desc	varchar(500)			✓		-

smoke_spread

Description the fire incident's smoke spread — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
smoke_spread_desc	varchar(500)			✓		-

sprinkler_system_operation

Description of the sprinkler system's operation during the fire incident — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
spo_desc	varchar(500)			✓		-

sprinkler_system_presence

Description of the sprinkler system's presence at the fire incident's origin — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
spp_desc	varchar(500)			✓		-

status_fire_on_arrival

Description of the fire's status upon TFS's arrival on scene — *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
sfa_desc	varchar(500)			✓		-

area_of_origin

Description of the area the fire incident originated in *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
aoo_desc	varchar(500)			✓		-

building_status

Description of the building's status following the fire incident *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
building_status_desc	varchar(500)			✓		-

business_impact

Description of the fire incident's impact on a business following the fire incident *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
building_impact_desc	varchar(500)			✓		-

extent_of_fire

Description of the extent of the fire incident *Sub-dimension Table*

Column Name	Data Type	PK	FK	NN	Default	Comment
id	varchar(5)	✓		✓		-
building_impact_desc	varchar(500)			✓		-