

Conceptual Data Model

Design Rules

To design our car insurance database conceptual data model we first needed to decide what characteristics underpin the model under investigation. As a group we decided on various rules that need to be implemented in order for the model to be consistent and precise.

Design Rule	Description	Example
Rule 1	All individual entity types must be in capital letters .	T13_CUSTOMER T13_OFFICE
Rule 2	An underscore is used to label an entity type with more than one word .	T13_TERMS_CONDITIONS T13_POLICY_RENEWABLE
Rule 3	Plurals are not used when labelling entity types .	T13_STAFF
Rule 4	No abbreviations are used when labelling entity types .	T13_PRODUCT

Assumptions

To design the Conceptual Data Model (CDM) we have a certain set of assumptions. These assumptions will help shape our model to allow consistency within our design. Table 3 presents the assumptions used in this model.

Assumption	Description
01	Customer must be a permanent international driving license
02	The online insurance has no physical high-street presence
03	The online insurance is given to customers over 18 years of age
04	The online insurance needs some driving history of customer
05	The online insurance needs to know type of car customer drives
06	The online insurance needs to know about insurance history of customer

Entity Types

All of the entity types that we feel are relevant in our CDM are

Table Number	Entity Type	Business Rules
•1	•T13_CUSTOMER	•Records all the personal details about the customer
•2	•T13_INSURANCE_COMPANY	•Details of the Insurance organization giving the insurance cover
•3	•T13_MEMBERSHIP	•Records details of customer membership, clubs, societies
•4	•T13_OFFICE	•Records details of different office locations
•5	•T13_POLICY_RENEWABLE	•Records details of due date of insurance policy
•6	•T13_CLAIM_SETTLEMENT	•Records details of settlement made on claims
•7	•T13_COVERAGE	•Records all terms and conditions in regard to the policy
•8	•T13_STAFF	•Records details of employees
•9	•T13_PRODUCT	•Records details of the products offered by insurance company
•10	•T13_INSURANCE_POLICY	•Records details of insurance agreement
•11	•T13_INSURANCE_POLICY_COVERAGE	•Records agreement and coverage details
•12	•T13_VEHICLE	•Records details of Vehicle model, cost and registration
•13	•T13_VEHICLE_SERVICE	•Records details of different vehicle services offered
•14	•T13_PREMIUM_PAYMENT	•Records details of customer cost of payments
•15	•T13_NOK	•Records details of the next of kin
•16	•T13_RECEIPT	•Details of premium payments to customer
•17	•T13_APPLICATION	•Records details of the insurance cover requested by customer
•18	•T13_DEPARTMENT	•Records details of the various departments
•19	•T13_CLAIM	•Records details of customer claims in case of an incident
•20	•T13_INCIDENT_REPORT	•Records details of the individual incident
•21	•T13_INCIDENT	•Records details of the accident, theft, fire, etc.
•22	•T13_QUOTE	•Records details of customer potential cost of the insurance product

Applying Relationships to Entities

To apply relationships to our entity types we formed certain assumptions to simplify and determine connections between entity types. These assumptions and explanations are

Applying Relationships to Entities

Entity type	Related To Entities	Relationship
T13_QUOTE	T13_APPLICATION	ONE TO ONE
T13_APPLICATION	T13_INSURANCE_POLICY T13_CUSTOMER	ONE TO MANY ONE TO MANY
T13_CUSTOMER	T13_MEMBERSHIP T13_PREMIUM T13_CLAIMS T13_VEHICLE	MANY TO MANY ONE TO MANY ONE TO MANY ONE TO ONE , ONE TO MANY
T13_INSURANCE_POLICY	T13_VEHICLE_INSURANCE T13_DEPARTMENT T13_NOK	ONE TO MANY MANY TO MANY ONE TO MANY
T13_PREMIUM	T13_RECIEPT	ONE TO MANY
T13_CLIAM	T13_CLAIM_SETTLEMENT	ONE TO ONE
T13_DEPARTMENT	T13_OFFICE T13_INSURANCE_COMPANY	MANY TO MANY ONE TO MANY
T13_INSURANCE_COMPANY	T13_STAFF	MANY TO MANY

Graphical presentation of CDM :-

