

Data Normalisation

1. 3rd Normalisation for Learner Requirement Database

Learner Table

LEARNER_ID (Primary Key)

LEARNER_FIRST_NAME

LEARNER_LAST_NAME

LEARNER_OTHER_NAMES

LEARNER_TRAINING_INTERESTS

SPECIFIC_INTERESTS

COURSE_CHOICE_ID (Foreign Key)

DESCRIPTION_OF_INTEREST

EXISTING_TRAINING

CURRENT_EXPECTED_JOB

Course Choice Table

COURSE_CHOICE_ID (Primary Key)

COURSE_CHOICE_TITLE

COURSE_CHOICE_DURATION

2. 3rd Normalisation for Provider Capability Database

Provider Table

PROVIDER_ID (Primary Key)

PROVIDER_NAME

COURSE_ID (Foreign Key)

Course Table

COURSE_ID (Primary Key)

COURSE_TITLE

SUBJECT_DOMAIN

COURSE_DURATION

COURSE_START_DATE

COURSE_END_DATE

COURSE_COST

COURSE_REQUIREMENTS

COURSE_INFO_ID (Foreign Key)

Course Info Table

COURSE_INFO_ID (Primary Key)

NEGOTIABLE_COURSE_DURATION

COURSE_DELIVERY_METHOD

COURSE_PLACEMENT_OPTION

COURSE_CONTENT_SUMMARY

COURSE_ACCREDITATION_LEVEL

COURSE_ASSESMENT_METHOD

CERT_PROG_ROUTE

COURSE_OBJECTIVES

COURSE_BENEFITS

Tutor Login Table

TUTOR_LOGIN_ID

TUTOR_ID

TUTOR_FIRST_NAME

TUTOR_LAST_NAME

TUTOR_USERNAME

TUTOR_PASSWORD

Learner Login

LEARNER_LOGIN_ID

LEARNER_ID

LEARNER_FIRST_NAME

LEARNER_LAST_NAME

LEARNER_USERNAME

LEARNER_PASSWORD

Tutor Table

TUTOR_ID

TUTOR_FIRST_NAME

TUTOR_LAST_NAME

TUTOR_DEGREE

TUTOR_OFFICE_HOURS

TUTOR_COURSE_TAUGHT

Person Table

PERSON_ID

PERSON_FIRST_NAME

PERSON_LAST_NAME

TUTOR_ID

LEARNER_ID

COURSE_ID

Data Dictionaries

1. Data Dictionaries for Learner Requirement Database

1. Learner Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
LEARNER ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
LEARNER_FIRST_NAME			VARCHAR	35	NOT NULL
LEARNER_LAST_NAME			VARCHAR	35	NOT NULL
LEARNER_OTHER_NAMES			VARCHAR	35	

LEARNER_TRAINING_INTERESTS			VARCHAR	255	
SPECIFIC_INTERESTS			VARCHAR	255	NOT NULL
COURSE_CHOICE_ID	FK	COURSE_CHOICE	INTEGER	6	NOT NULL, FOREIGN KEY
DESCRIPTION_OF_INTEREST			VARCHAR	355	NOT NULL
EXISTING_TRAINING			VARCHAR	1	CHECK
CURRENT_EXPECTED_JOB			VARCHAR	255	

2. Course Choice Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
COURSE_CHOICE_ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
COURSE_TITLE			VARCHAR	100	
COURSE_DURATION			VARCHAR	100	

2. Data Dictionaries for Provider Capability Database

1. Provider Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
PROVIDER_ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
PROVIDER_FIRST_NAME			VARCHAR	35	NOT NULL
COURSE_ID	FK	COURSE	INTEGER	6	NOT NULL
PROVIDER_LAST_NAME			VARCHAR	35	NOT NULL
PROVIDER_DEGREE			VARCHAR	50	NOT NULL
PROVIDER_OFFICE_HOURS			INTEGER	10	NOT NULL
PROVIDER_COURSE_TAUGHT			VARCHAR	50	NOT

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2. Course Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
COURSE_ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
COURSE_TITLE			VARCHAR	100	NOT NULL
SUBJECT_DOMAIN			VARCHAR	75	
COURSE_DURATION			VARCHAR	100	NOT NULL
COURSE_START_DATE			DATE	9	NOT NULL
COURSE_END_DATE			DATE	9	NOT NULL
COURSE_COST			DOUBLE	4,2	NOT NULL
COURSE_REQUIREMENTS			VARCHAR	500	NOT NULL
COURSE_INFO_ID	FK	COURSE_INFO	INTEGER	6	NOT NULL, FOREIGN KEY

3. Course Info Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
COURSE_INFO_ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
NEGOTIABLE_COURSE_DURATION			VARCHAR	100	
COURSE_DELIVERY_METHOD			VARCHAR	255	
COURSE_PLACEMENT_OPTION			VARCHAR	1	CHECK
COURSE_CONTENT_SUMMARY			VARCHAR	355	
COURSE_ACCREDITATION_LEVEL			VARCHAR	100	
COURSE_ASSESSMENT_METHOD			VARCHAR	255	
CERT_PROG_ROUTE			VARCHAR	255	
COURSE_OBJECTIVES			VARCHAR	355	
COURSE_BENEFITS			VARCHAR	355	

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4. Provider Login Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
PROVIDER_LOGIN_ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
PROVIDER_ID	FK	PROVIDER	VARCHAR	35	NOT NULL, FOREIGN KEY
PROVIDER_FIRST_NAME			VARCHAR	35	NOT NULL
PROVIDER_LAST_NAME			VARCHAR	35	NOT NULL
PROVIDER_USERNAME			VARCHAR	16	NOT NULL
PROVIDER_PASSWORD			VARCHAR	18	NOT NULL

5. Learner Login Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
LEARNER_LOGIN_ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
LEARNER_ID	FK	LEARNER	VARCHAR	35	NOT NULL, FOREIGN KEY
LEARNER_FIRST_NAME			VARCHAR	35	NOT NULL
LEARNER_LAST_NAME			VARCHAR	35	NOT NULL
LEARNER_USERNAME			VARCHAR	16	NOT NULL
LEARNER_PASSWORD			VARCHAR	18	NOT NULL

6. Person Table

Attribute Name	Key Type	FK Table	Data Type	Length	Constraint
PERSON_ID	PK		INTEGER	6	NOT NULL, PRIMARY KEY
PERSON_FIRST_NAME			VARCHAR	20	
PERSON_LAST_NAME			VARCHAR	50	
PROVIDER_ID	FK	PROVIDERS	VARCHAR	50	NOT NULL, CHECK, FOREIGN KEY
LEARNER_ID	FK	LEARNERS	VARCHAR	35	NOT NULL, CHECK, FOREIGN KEY
COURSE_ID	FK	COURSES	VARCHAR	35	NOT NULL, , FOREIGN KEY