UNIT & LECTURER Forms

		REPORT DATE: 22/07/2022	
Unit Number	Unit Name	Unit Description	Unit Value
FIT9131	Programming	Introduction to	6
	Foundations	programming	
FIT9132	Introduction to Database	Database Fundamentals	6
FIT9134	Computer Architecture	Fundamentals of	6
	and Operating Systems	computer systems and	
		the computing	
		environment	
FIT9135	Data Communications	Fundamentals of data and	1 6
		computer	
		communications	

^{*} Unit value may be either 3, 6 or 12 points

LECTURER DETAILS	REPORT DATE: 22/07/2022		
LECTURER'S NUMBER: 10234			
LECTURER'S NAME: GUISEPPE BLOGGS LECTURER'S OFFICE No.: 169			
LECTURER'S PHONE No.: 99037111			
UNIT ADVISER FOR:			
UNIT NUMBER	UNIT NAME		
FIT9131	Programming Foundations		
FIT9134	Computer Architecture and Operating Systems		

^{*} A given unit may have several advisers

To add a student, the lecturer who advises that student must already exist in the database. No lecturer who advises any students may be deleted from the database. If the lecturer number of a lecturer is changed, then the number would be changed for each student advised by that lecturer.

UNIT Form

UNF

UNIT (unit_no, unit_name, unit_description, unit_value)

1NF

UNIT (<u>unit_no</u>, unit_name, unit_description, unit_value)

CK:

^{*} Some lecturers share offices, although each has their own phone

- (unit_no)
- (unit_no, unit_name)
- (unit_no, unit_description)
- (unit_no, unit_value)

Partial Dependencies:

None

2NF

UNIT (<u>unit_no</u>, unit_name, unit_description, unit_value)

Transitive Dependencies:

None: No Transitive Dependencies

3NF

UNIT (<u>unit_no</u>, unit_name, unit_description, unit_value)

Full Dependencies:

unit_no → unit_name, unit_description, unit_value

LECTURER Form

			REPORT DATE: 22/07/2022	
Unit Number	Unit Name	Unit Description	Unit Value	
FIT9131	Programming Foundations	Introduction to programming	6	
FIT9132	Introduction to Database	Database Fundamentals	6	
FIT9134	Computer Architecture and Operating Systems	Fundamentals of computer systems and the computing environment	6	
FIT9135	Data Communications	Fundamentals of data and computer communications	6	

^{*} Unit value may be either 3, 6 or 12 points

LECTURER DETAILS	REPORT DATE: 22/07/2022		
LECTURER'S NUMBER: 10234			
LECTURER'S NAME: GUISEPPE BLOGGS			
LECTURER'S OFFICE No.: 169			
LECTURER'S PHONE No.: 99037111			
UNIT ADVISER FOR:			
UNIT NUMBER	UNIT NAME		
FIT9131	Programming Foundations		
FIT9134	Computer Architecture and Operating Systems		

UNF

LECTURER (lect_no, lect_name, lect_office_no, lect_phone_no, (unit_no, unit_name))

1NF

LECTURER (lect_no, lect_name, lect_office_no, lec_phone_no)

ADVICE (lect_no, unit_no, unit_name)

CK:

LECTURER:

- lect_no
- lect_phone_no

ADVICE:

- lect_no
- unit_no

^{*} A given unit may have several advisers
* Some lecturers share offices, although each has their own phone

Patial Dependencies:

 $unit_no \rightarrow unit_name$

2NF

LECTURER (<u>lect_no</u>, lect_name, lect_office_no, lect_phone_no)

ADVICE (<u>lect_no</u>, unit_no)

UNIT(unit_no, unit_name)

Transitive dependencies:

None

Note: lec_phone_no is a candidate key and is a key, not a non-key attribute, even though we have not chosen it as a primary key.

3NF

LECTURER (<u>lect_no</u>, lect_name, lect_office_no, lect_phone_no)

ADVICE (lect_no, unit_no)

UNIT (unit_no, unit_name)

Full Dependencies:

lect_no → lect_name, lect_office_no, lect_phone_no

unit_no → unit_name

STUDENT Form

STUDENT DETAILS REPORT DATE: 22/07/2022

STUDENT No.: 12345678

STUDENT NAME: Poindexter Jones

STUDENT ADDRESS: 23 Wide Road, Caulfield, 3162

COURSE ENROLLED: MIT MODE OF STUDY: On-Campus

MENTOR NUMBER: 10234
MENTOR NAME: Guiseppe Bloggs

ACADEMIC RECORD:

UNIT NUMBER	UNIT NAME	YEAR / SEMESTER	GRADE
FIT9131	Programming Foundations	2021/2	N
FIT9131	Programming Foundations	2022/1	D
FIT9132	Introduction to Databases	2022/1	D

^{*} Grade may have the value N, P, C, D or HD

UNF

STUDENT (student_no, student_name, student_address, student_course_erolled, student_mode_of_study, student_mentor_no, student_mentor_name, (student_unit_no, student_unit_name, (student_unit_year, student_unit_semester), student_unit_grade))

1NF

STUDENT (<u>student_no</u>, student_name, student_address, student_course_erolled, student_mode_of_study, mentor_no, mentor_name)

ENROLMENT (unit_no, student_no, unit_name, enrol_year, enrol_semester, unit_grade)

CKs:

STUDENT

• student_no

ENROLMENT

unit_no, student_no, enrol_year, enrol_semester

^{*} Mode of Study must be On-campus (O) or Distance Education (D)

Partial Dependencies:

unit_no → unit_name

2NF

STUDENT (<u>student_no</u>, student_name, student_address, student_course_erolled, student_mode_of_study, <u>mentor_no</u>, mentor_name)

ENROLMENT (unit_no, student_no, enrol_year, enrol_semester, unit_grade)

UNIT (unit_no, unit_name)

Transitive dependencies:

<u>mentor_no</u> → mentor_name

3NF

STUDENT (<u>student_no</u>, student_name, student_address, student_course_erolled, student_mode_of_study, mentor_no)

ENROLMENT (unit_no, student_no, enrol_year, enrol_semester, unit_grade)

MENTOR (mentor_no, mentor_name)

UNIT (unit_no, unit_name)

Full Dependencies:

 $student_no \rightarrow student_name, student_address, student_course_enrolled, student_mode_of_study, \\ mentor_no$

mentor_no -> mentor_name

unit_no, student_no, enrol_year, enrol_semester → unit_grade,

unit_no → unit_name

Attributes Synthesis

UNIT (<u>unit_no</u>, unit_name, unit_description, unit_value)

LECTURER (<u>lect_no</u>, lect_name, lect_office_no, lect_phone_no)

ADVICE (lect_no, unit_no)

UNIT (unit_no, unit_name)

STUDENT (<u>student_no</u>, student_name, student_address, student_course_erolled, student_mode_of_study, mentor_no)

ENROLMENT (unit_no, student_no, enrol_year, enrol_semester, unit_grade)

MENTOR (mentor_no, mentor_name)

UNIT (unit_no, unit_name)

Note: lecturer = mentor