

ENTITY SPECIFICATION FORM

Entity Specification

ENTITY NAME: Expense RELATIONSHIPS: Many to one with Researchers Many to one with Project		Entity description/purpose and metrics: Contains data for expenses that are incurred by researchers.		
Attribute Name	Attribute Data Type <u>and width</u> where applicable	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
Researcher_ID	Varchar(5)	PK,FK		Consists of the first three letters of first name followed by three digits. Example:WER123
Project_id	Num(4)	PK,FK		Made up of a 4-digit number. Must be unique.
E_Date	Date	I nn	Date of expense cannot be after system date	Researchers are to enter date for an expense that has been incurred. EG. 2019-March-31
exp_type	Char(12)	I nn	Limit value to one Of: Manpower Miscellaneous	The expense is categorised by the following manpower or Miscellaneous
Amount	Num(5,2)	nn		Expense value must be entered EG £257.28

ENTITY NAME: Lecture timetable RELATIONSHIPS: Many to one with researchers		Entity description/purpose and metrics: Provides a schedule of lectures for students to attend during semester. There is one timetable for every semester.		
Attribute Name	Attribute Data Type and width where applicable	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
Researcher_ID	Varchar(4)	PK,FK		Consists of the first three letters of first name followed by three digits. Example WER123
Lecture_ID		PK		
LDate	Date	I nn		Dates for when researchers will attend lectures. EG. 2019-March-31 5:20:11
Topic	Varchar(15)	nn		Refers to the topic of lecture that will be presented EG Computer Science

ENTITY NAME: Attendance		Entity description/purpose and metrics: Student attendance at lectures are monitored and feedback is recorded. Approximately 300 students attend Lectures.		
RELATIONSHIPS:				
Attribute Name	Attribute Data Type and width where applicable	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
Student_ID	Varchar2(6)	PK		6 digit number Eg 245613
First Name	Varchar2(15)	I		Surname followed by first name in full EG Doe John
Last Name	Varchar2(15)			
Date	DateTime	nn		Date & time students have attended lectures. Example: 22-MAR.19 8:50:10
Feedback	Number(1)	nn	Limit value: Poor 1 Very Poor 2 Excellent 5 Moderate 4	Refers to a student feedback in a number Example: 4

ENTITY NAME: <i>Researchers</i>		Entity description/purpose and metrics: This contains data on the researchers Approximately 20 researchers		
RELATIONSHIPS: <i>One to many with team projects</i> <i>One to many with expense</i> <i>One to many with lecture timetable</i> <i>Many to one with organisations</i>				
Attribute Name	Attribute Data Type and width where applicable	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Name</i>	VARCHAR(20)	I	The name must be in upper case.	Surname must be followed by first name in full. EG Doe Mary
<i>Researcher ID</i>	VARCHAR(5)	PK		Consists of the first 3 letters of the last name, followed by a two digits. EG DOE12
<i>Topic</i>	VARCHAR(12)	I	Must be in uppercase.	The topic that is related to the project is needed
Phone number	VARCHAR(14)	I	Must begin with (+) sign country code	EG +2347535472920
Organisation ID	VARCHAR(5)	FK		First three letters of the organisation name, followed by two digits. EG ORG12

ENTITY NAME: <i>Organisation</i> RELATIONSHIPS: <i>One to many with researchers</i>		Entity description/purpose and metrics: This contains data on organisations Approximately 10 organisations		
Attribute Name	Attribute Data Type <u>and width where applicable</u>	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Organisation_ID</i>	VARCHAR(5)	PK	The name must be in upper case.	First three letters of the organisation name, followed by two digits. EG ORG12
<i>Name</i>	VARCHAR(25)	I, nn		Full name of the organisation must be entered. EG University of North London
Phone_number	VARCHAR(14)	nn	Must begin with (+) sign country code	EG +2347535472920
<i>Location</i>	VARCHAR(20)	I, nn		

ENTITY NAME: <i>Team Project</i>		Entity description/purpose and metrics: This contains data on the project such as the researchers on the project and the tasks that they have to complete.		
RELATIONSHIPS: <i>Many to one with project</i> <i>Many to one with researcher</i>				
Attribute Name	Attribute Data Type <u>and width where applicable</u>	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Project_ID</i>	VARCHAR(6)	PK,FK		This will consist of the first 3 letters of the topic followed by 3 digits.
<i>Researcher_ID</i>	VARCHAR(5)	PK,FK		Consists of the first 3 letters of the last name, followed by a two digits. EG DOE12
<i>Role</i>	VARCHAR(12)	I	limit value to 'team leader', 'administration' and 'researching'	This refers to what the...

ENTITY NAME: <i>Project</i>		Entity description/purpose and metrics: This contains data on the projects such as the start and end date. Approximately 50 projects		
RELATIONSHIPS: <i>One to many with team projects</i> <i>One to many with paper</i> <i>One to many with sponsored projects</i>				
Attribute Name	Attribute Data Type and width where applicable	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Project_ID</i>	VARCHAR(6)	PK		This will consist of the first 3 letters of the topic followed by 3 digits.
<i>Topic</i>	VARCHAR(20)	nn	Programming ISDB Math Algorithms	This is the main heading of the project. EG computer science
<i>Start_date</i>	DATE	I		Official start of a project. EG 15/03/19
<i>est_end_date</i>	DATE	I	Date must be after start date	The date the project is estimated to be completed. EG 24/03/19
<i>End_date</i>	DATE	I	Date must be after start date	The date the project is actually completed on. EG 26/03/19

ENTITY SPECIFICATION FORM

ENTITY NAME: <i>Papers</i> RELATIONSHIPS: <i>One to many with Paper Rating</i> <i>Many to one with project</i>		Entity description/purpose and metrics: This contains data on the papers that are published by projects. Approximately 10 paper per project.		
Attribute Name	Attribute Data Type and width where applicable	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Project ID</i>	VARCHAR(6)	PK,FK		This will consist of the first 3 letters of the topic followed by 3 digits.
<i>Paper ID</i>	NUM(5)	PK		Consists of the first 3 unique numbers for example:123
<i>Name</i>	VARCHAR			
<i>Description</i>				
<i>Topic</i>	VARCHAR(12)	I	Must be in uppercase.	The topic that is related to the project category. Example: Programming
<i>Pub Date</i>	Date			

ENTITY NAME: <i>Paper rating</i> RELATIONSHIPS: <i>Many to one with journal</i> <i>Many to one with paper</i>		Entity description/purpose and metrics: This contains data on papers with a journal rating.		
Attribute Name	Attribute Data Type and width where <u>applicable</u>	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Paper ID</i>	NUM(5)	PK,FK		Consists of the first 3 unique numbers for example:123
<i>Project ID</i>	VARCHAR(6)	PK,FK		This will consist of the first 3 letters of the topic followed by 3 digits.
<i>Rating</i>	NUM(1)	I	Limit the value to '1', '2', '3', '4', '5'	Like student feedback this will be the rating of the paper. EG 5

ENTITY NAME: <i>Journal</i>		Entity description/purpose and metrics: This contains data on journals.		
RELATIONSHIPS: <i>One to many with paper rating</i>				
Attribute Name	Attribute Data Type <u>and width where applicable</u>	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Journal_ID</i>	NUM(4)	PK		Consists of the first 2...
<i>Name</i>	VARCHAR(20)	nn		This will consist of the first 3 letters of the topic followed by 3 digits or just the name of the journal
<i>Rating</i>	NUM(1)	I	Limit the value to '1', '2', '3', '4', '5'	Like student feedback and paper rating this will be the rating of the journal. EG 5

ENTITY NAME: <i>Sponsored Projects</i> RELATIONSHIPS: <i>Many to one with projects</i> <i>Many to one with Organisation</i>		Entity description/purpose and metrics: This contains data on the projects that are funded.		
Attribute Name	Attribute Data Type and width where applicable	Status (nn, PK, FK, I)	Validation	Example of input and all other relevant information, eg coding structure
<i>Sponsor_ID</i>	VARCHAR(5)	PK, FK		Consists of the first 3 letters of the name along with two digits. EG UDE12
<i>Project_ID</i>	NUM(5)	PK,FK		Consists of the first 3 unique numbers for example:123
<i>Funds</i>	NUM(5,2)	nn		The total amount of money received from the sponsor or the organisation. EG £200
<i>ManPower</i>	NUM(5,2)	nn	Funds/2	This will be half of the funds. EG £100
<i>Misc</i>	NUM(5,2)	nn	Funds/2	This will be half of the funds. EG £100

