

FIT9132 Introduction to Databases

Pets First (PF)

Purpose	<p>Given the provided case study, students are asked to transform the information provided in the case study into a full conceptual model as the first step towards a database design. This task covers learning outcomes:</p> <ol style="list-style-type: none"> 1. Apply the theories of the relational database model. 2. Develop a sound relational database design.
Your task	<p>This is an open book, group task (students will work in groups of two or three students with members selected randomly). The final output for this task will be a PDF document of a conceptual model as the first step towards a relational database design in assignment 1B</p>
Value	<p>10 % of your total marks for the unit</p>
Due Dates	<p>Task Submission: Week 4 - Thu, 17th August 2023, 4:30 pm Self and Group Evaluation (Feedback Fruit): Thu, 24th August 2023, 11:55 pm</p>
Submission	<ul style="list-style-type: none"> • Via Moodle Assignment Submission. • FIT GitLab check ins will be used to assess history of development
Assessment Criteria	<ul style="list-style-type: none"> • Identification of the entities which support the case study. • Identification and placement of attributes to support the case study. • Determination of relationships which support the case study. • Consistent use of industry standard notation and convention
Late Penalties	<ul style="list-style-type: none"> • 10% deduction per calendar day (-8 marks) or part thereof for up to one week • Submissions more than 7 calendar days after the due date will receive a mark of zero (0) and no assessment feedback will be provided. • 0 marks for peer evaluation component (see marking guide) if the Self and Group Evaluation is not completed by the due date (no late submission permitted)
Support Resources	<p>See Moodle Assessment page</p>
Feedback	<p>Feedback will be provided on student work via:</p> <ul style="list-style-type: none"> • general cohort performance • specific student feedback ten working days post submission • <i>a sample solution following assignment 1B marking</i>

INSTRUCTIONS

Your task for this assignment is to design a database which can be used to support the activities of a veterinary practice called Pets First.

Pets First has a number of clinics distributed across the suburbs. For each clinic they record the clinic's id (which is used to identify the clinic), the clinic's name, its address and the clinic's contact phone number. The practice has a number of veterinary surgeons (vets) who work in these clinics, a vet is assigned to one clinic as their home (or base) clinic. To be able to function, a clinic must have at least one vet assigned to it as the vets base clinic.

The details Pets First record about a vet are their vet id (used to identify a vet), the vet's given name and family name, the vet's contact phone number and the date they were first employed by Pets First.

Some of Pets First vets are specialists in areas such as oncology, cardiology, dermatology etc. These specialist vets, as well as having a home clinic (their base clinic) where they accept general visits, also rove around all clinics when their specialist skills are required in the treatment of an animal. In addition these specialist vets visit clinics to provide training to the clinic based vets. Pets First wishes to know which clinic a particular specialist vet has provided training at, what the training course was called (eg. Heart Scanning), what date the training was provided and its duration. A given training session is only run by a single specialist at a single clinic.

If the vet is a specialist vet then their area of specialisation is also recorded as part of their vet details (specialist vets only specialise in one particular area).

Each clinic appoints one of the vets based in the clinic (i.e. those vets assigned to the clinic as their home clinic) as the head vet for that clinic.

Pet owners, who are each assigned a unique owner id, have their given name and family name recorded by the practice. The practice also records the owner's contact phone number. Each owner may have one or more pets; for each pet the practice records a unique animal id, the animal's name, the year the animal was born and the type of animal they are, for example a cat. Each animal is only recorded as being owned by one owner.

When an animal needs veterinary attention (such as annual injections) or is ill, the owner brings their pet to one of the practice's clinics to be attended to by a vet - this is called a visit. The date and time of the visit, the clinic being visited and the attending vet are recorded (this attending vet may be one based at this particular clinic ie. this is their home clinic, or the visit may need the services of a roving specialist vet). In addition, the practice records the weight of the pet for this visit, the length of the visit and any notes that the vet needs to make about the condition of the pet.

Some visits require further follow up visits, the system needs to record, for these subsequent visits, which visit generated the follow up. A given visit may require multiple follow up visits to address an issue identified in the initial diagnosis. For example the pet may have an infected wound from a fight. The first visit for this issue results in antibiotics being given and the wound being stitched. Follow up visits may be required for example to remove the stitches, check the wound healing, provide further antibiotic injections etc.

During a visit the attending vet may need to prescribe drugs for the animal. The practice identifies a drug by a unique drug id, and also records the drug's name and the drugs usage instructions (for example "1 ml/3Kg of body weight given once or twice a day"). When a drug is prescribed during a visit, the actual drug dose and frequency of administration are recorded.

REMEMBER you must keep up to date with the Moodle Ed Assignment 1A forum where further clarifications may be posted (this forum is to be treated as your client).

To view Assignment 1A only posts, select the Assignment and then the Assignment 1A forum from the Categories list in the left panel.

CATEGORIES

■ General

■ Software Related Help

■ Workshops

■ Tutorials

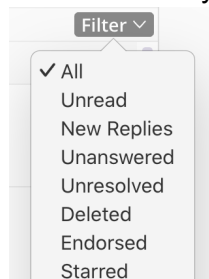
■ Assignments

Ass 1A



Ass 1B

Once selected you can Filter the posts via the Filter option at the top of the list of posts:



Please be careful to ensure you do not publicly post anything which includes your reasoning, logic or any part of your work to this forum, doing so violates Monash plagiarism/collusion rules and has significant academic penalties. Use private posts or email your allocated tutor to raise questions which may reveal part of your reasoning or solution.

You are free to make assumptions if needed however they must align with the details here and in the assignment forums and must be clearly documented (see the required submission files). **Normally such assumptions would only relate to minimum cardinality where not expressed in the case study.**

Group Communication

Your group **MUST** make use of your private group channel in MS Teams **for all group communication during this assignment which is not face to face**. Microsoft Teams provides facilities to support group interaction including chat, group email, shared desktop, meetings, video/audio calling and shared files.

Activity in your private group channel is only visible to your group members and the teaching staff. It is important that you use Microsoft Teams for your group activities as it may be necessary for your tutor/marker to check the group members' contributions to the task and attendance at meetings - **such a decision will be based ONLY on the activity recorded in your private group channel.**

TASKS to be Completed

Please **ENSURE** you include your **full group name on every page of any document you submit**. If a document is a multipage document, please also make sure you include page numbers on every page.

GIT STORAGE

Your work for these tasks **MUST** be saved in your group's working directory in the Assignment 1A folder and **regularly pushed to the FIT GitLab server** to build a clear history of development of your model. Please refer to the marking guide for details about the required actions for use of gitLab by the group. Any submission with less than six pushes to the FITGitLab server will incur a grade penalty of 8 marks (an 8 mark deduction). Please note that six pushes are a minimum, in practice we would expect significantly more. **This number of pushes must be evenly distributed amongst group members.**

Groups must regularly check that their pushes have been successful by logging in to the web interface of the FIT GitLab server; you must not simply *assume* they are working. Before submission, via Moodle, you **must** log in to the [web interface of the GitLab server](#) and ensure your submission files are present on the GitLab server.

GIT automatically maintains a history of all files pushed to the server, you do not need to, *and MUST not*, add a version name to your various versions, please ensure you use the same name for all versions of a particular file. Check Git File Versions video under the week 3 block on Moodle if you need to clarify this.

The tasks to complete:

(i) Using LucidChart, prepare a **FULL conceptual model** (Entity Relationship Diagram) using crow's foot notation for Pets First (PF) as described above.

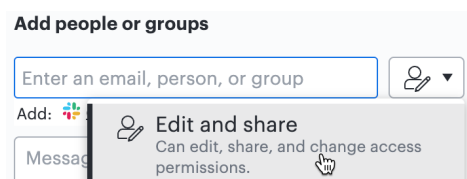
- For this FULL conceptual model (ERD), include:
 - identifiers (keys) for each entity
 - all required attributes, and
 - all relationships. Cardinality (min and max) and connectivity for all relationships must be shown on the diagram.

- **Surrogate keys must not be added to this model.**

Your model must conform to the unit ERD standards Note that you can share your LucidChart working model between group members via the Share button



in the top right of an open LucidChart document - one student in the group should set up the initial model in a new empty tab and then share this with fellow group members, giving the other group members edit access:



(ii) Maintain a Group Diary which records when the group met/communicated to discuss/work on the task, including the date, who was present and a brief statement of what occurred. This Group Diary must be maintained in Microsoft Teams as a shared document in your private group channel.

As part of submission of your assignment *each* group member will be required to provide confidential feedback on the group members performance/interactions. *The final mark awarded for each member of the group may differ based on the member's contributions to the task, please see the marking guide below (page 9) for further details - under the criteria "Peer Evaluation".*

Submission Requirements

The following files are to be submitted and **must exist** in your Group FITGitLab server repo:

- A **single page pdf file** containing your full final conceptual model. Name the file **pf_conceptual.pdf**. This file must be created via File - Export (or Download As) - PDF from LucidChart (**do not use screen capture**) and must be able to be accessed with a development history via GIT. You can create this development history by downloading your PDFs (don't forget to use the same name - DO NOT use version 1 etc) and committing/pushing to GIT as you work on your model.
- A PDF document containing any assumptions you wish to make your marker aware of. Name the file **pf_assumptions.pdf**. If you have made no assumptions, submit the document with a single statement saying, "No assumptions made". The source document, as an MS Word document must be available in your MS Teams private group channel.
- A PDF document of your Group Diary named as **pf_##_diary.pdf** (replace ## with your full group name, e.g. pf_A01-Group01_diary.pdf). The source document, as an MS Word document must be available in your MS Teams private group channel. A template is available on the Moodle Assessments page to provide a suggested structure for your group diary.

These **three PDF files must be submitted via Moodle before the due date/time** (times are expressed in Aust/Melbourne local time). Do not zip these files into one zip archive, submit three independent PDF files. **The files only need to be submitted by one member of the group after the group has agreed that the submission is complete and ready to be graded.**


Late submission will incur penalties as outlined in the unit guide (10% or 8 marks deduction per 24 hours or part thereof).

Please note we **cannot mark any work on the Git Server**, you need to ensure that you submit correctly via Moodle since it is only in this process that you complete the required student declaration without which work **cannot be assessed**. **Email submission in any form is NOT ACCEPTABLE.**

It is your responsibility to **ENSURE** that the files you submit are the correct files - we strongly recommend after uploading a submission, and prior to actually submitting in Moodle, that you download the submission and double-check its contents.

Your assignment **MUST** show a status of "Submitted for grading" before it will be marked.

Submission status

Attempt number	This is attempt 1.
Submission status	Submitted for grading 
Grading status	Not graded

If your submission shows a status of "Draft (not submitted)" it will not be assessed and **will incur late penalties after the due date/time**. Please **carefully** read the documentation under "Assignment Task Submission" on the Moodle Assessments page.

Use of Generative AI tools

In this assessment, you can use generative artificial intelligence (AI) in order to assist with design decisions only. Any use of generative AI must be appropriately acknowledged (see [Learn HQ](#))

Academic Integrity

Students are expected to be familiar with the [University Academic Integrity Policy](#) and are particularly reminded of the following:

Section 1.9:

Students are responsible for their own good academic practice and must:

- undertake their studies and research responsibly and with honesty and integrity;
- credit the work of others and seek permission to use that work where required;
- not plagiarise, cheat or falsify their work;
- ensure that their work is not falsified;
- not resubmit any assessment they have previously submitted, without the permission of the chief examiner; appropriately acknowledge the work of others;
- take reasonable steps to ensure that other students are unable to copy or misuse their work; and
- be aware of and comply with University regulations, policies and procedures relating to academic integrity.

and

Section 2.9:

Unauthorised distribution of course-related materials: Students are not permitted to share, sell or pass on to another person or entity external to Monash:

2.9.1 any course material produced by Monash University (such as lecture slides, lecture recordings, class handouts, assessment requirements, examination questions; excluding Handbook entries) as this is a breach of the Copyright Compliance Policy and such conduct may be a copyright law infringement subject to legal action; or

2.9.2 any course-related material produced by students themselves or other students (such as class notes, past assignments), nor to receive such material, without the permission of the chief examiner.

The [penalties for breaches of academic misconduct](#), include:

- a zero mark for the assessment task
- a zero mark for the unit
- suspension from the course
- exclusion from the University.

Where a penalty or disciplinary action is applied, the outcome is recorded and kept for seven years, or for 15 years if the penalty was exclusion.

Marking Guide

Submitted models will be assessed against the optimal solution for this modelling task - this optimal solution will be available as a sample solution after assignment 1B has been graded.

Assignment 1A Group submission content graded out of 80 marks as shown below:

Marking Criteria	Items assessed
Identification of the entities which support the case study (20 marks).	Maximum 10 marks - Entities: <ul style="list-style-type: none"> Marks awarded for each correct entity identified Mark penalty for unnecessary entities included Maximum 10 marks - Keys: <ul style="list-style-type: none"> Marks awarded for each correct key selected Mark penalty for surrogate or foreign keys added
Identification and placement of attributes to support the case study (15 marks).	Maximum 15 marks - Attributes: <ul style="list-style-type: none"> Marks awarded for each necessary attribute identified Mark penalty for extra attributes included Marks penalty for placement of attribute in incorrect entity
Determination of relationships which support the case study (30 marks).	Maximum 10 marks - Relationships: <ul style="list-style-type: none"> Marks awarded for each correct relationship identified Mark penalty for unnecessary relationships included Mark penalty for redundant relationships included Maximum 20 marks - Cardinality: <ul style="list-style-type: none"> Marks awarded for correct minimum and maximum cardinality for every correct relationship
Consistent use of industry standard notation and convention (5 marks).	Maximum 5 marks - Modelling standards: <ul style="list-style-type: none"> Marks awarded for application of Unit ERD notation convention Mark penalty for use of PK/FK labels Mark penalty for incorrectly depicted identifying/non identifying relationships based on determined keys

Correct use of Git by group (10 marks).	Maximum 10 marks - Git used appropriately: <ul style="list-style-type: none"> • Marks awarded for six pushes showing a clear development history • Marks awarded for even distribution of pushes amongst all group members • Marks awarded for correct Git author details used in pushes (see week 2 Applied notes Appendix) • Marks awarded for the use of meaningful commit messages (ie. not blank or of the form "Push1")
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Assignment 1A Individual Group Evaluation graded out of 20 marks as shown below:

Peer Evaluation <i>Note: No Late Submissions accepted for this component</i>	Maximum 20 marks - Contribution and Participation in your group: <ul style="list-style-type: none"> • Communication • Project Management • Quality of contribution • Quantity of contribution • Use of MS Teams within the group private channel • Support for the group's working environment as assessed by self-evaluation and group members (peer) evaluation via Feedback Fruits • This component will be moderated, if necessary, by your tutor based on any group issues/concerns which are not addressed
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Final Assignment Mark Calculation

- 80 marks from the content of the group submission
PLUS
- 20 marks from the individual members group evaluation (self-review, peer review and tutor moderation)
- Total:100 marks, recorded as a grade out of 10