Qualification national code and title	ICT40515 – Cert IV Programming
Unit/s national code/s and title/s	**ICTSAD501 – Model data objects** **ICTSAD502 – Model data processes**

Assessment – Vet Surgery Web based Application

Assessment type (☑):

☐ Questioning (Oral/Written)
☒ Practical Demonstration
☐ 3rd Party Report
☒ Other – Project/Portfolio (*please specify)*

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Requirements

As students in the Information and Communications Technology courses and future members of the ICT industry, you are going to be working with clients and other personnel when part of projects and other activities.

The project may include multiple phases such as analysis, design, development, iterations of the last two, client meetings and the sign off. Your lecturers will provide you support in regards to requirements and client meetings but you are expected to work as a member of the group and alongside your classmates, aim to achieve all requirements in the project (including documentation requirements).

Assessment Tasks

The business owner (A vet who will run this small business from the front desk of a standard office (that also has consulting rooms) via telephone bookings or walk in customers – no internet access is given to customers) wishes to use a VS C# Web forms application to run their business. No business (i.e. bookings, payments etc) will be done via the internet. The owner will use contract Vets who need access to the application via the web so that they can see what appointments they have for the day/week and/or review/edit comments/recommendations they made on each consultation.
You will now complete your data model (ERD), DFD and process model. This means you will document:

1. all entities
2. and all their attributes
3. all relationships and types of relationship
4. PK's and FK's
5. Scope of application
6. Key processes, data flows and data stores via levelled data flow diagrams
7. Normalization of RDBMS logical model
8. Complete SQL DDL to create the physical RDBMS model

I. You will also do walkthroughs with the client to check for completeness of business rules and to validate the models. This ensures RI, data type integrity, identification of any data sub-types or super-types.
II. You will build code snippets in VS C# and Web Forms via Visual Studio (your IDE) to maintain key data such as Customer, Booking, Vet and Pet data. All your code will follow good practices such as

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using "try… except" around calls to external functions such as the RDBMS engine, and it will be commented for clarity/documentation purposes.

III. We have to think about and discuss (with the business owner) your way through a typical business transaction to help you work out the code you will need for each of the functions the code must perform.

Bear in mind that Vets have to log on using a userid and password and**:**

1. **They are allowed to browse all appointments details**
2. **They can add comments and medications only to appointments they took**
3. **They can browse all appointments, Clients and Pets details**
4. **They can only modify their appointments comments and medications prescribed for an appointment.**
5. **They need a specialised view of just their appointments for planning purposes**

Your sample data must allow for these possibilities.
This is a business owned by 1 person who runs the front desk – payments are "as you leave" (no billing, no credit, no deposits, no part payments) only basis and only the owner can enter payments into the database.
Each new customer can only be entered into the database by the business owner after the customer has shown 100 points of id (eg Driver's licence or Pensioner card with photo or Work ID badge with photo or some other ID card that has a photograph of the card holder on it) – no id means no appointment.

IV. Similarly the business owner needs to be able to log on using a userid and password and**:**

a. They need to see an ordered list of appointments in date order
b. Modify appointments (eg payment, date , time, vet etc)
c. Check business income on Daily, Weekly or Monthly basis

A. The bare minimum:

You now have maximum class time for writing a C# forms Web app that will do the following:

1. Allow a vet to browse all appointments

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2. Allow a vet to browse medications
3. Allow a vet to alter only their appointments (eg add medications or comments)

For the owner's logon functions:

4 Be able to add/alter/delete an appointment
5 Run financial reports that show income by day, week, month or date defined period
6 List appointments in date order
7 Show client and pet details from appointment selected

B. Here are the business rules to keep in mind:

1. No appointments can be placed unless a client exists, and the pet exists
2. All past appointments are stored online.
3. The vet should have update of their appointments only
4. Only the owner should be allowed to:
   a Add/delete appointments and the owner will allocate an appointment to a vet at time of booking
   b Use financial reports – e.g. weekly income of business report

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