INF20029 Assignment 1 Outline - Individual

Words Expectation: 2000 +/-10%   **Weighting:** 30%   **Due date:** See Unit website

Assignment 1 submission details

- All references should be appropriately cited using the APA Referencing style
- Submit your report as **ONE** Microsoft Word document
- Save your file as follows: [student number_A1.filetype] e.g. 123456_A1.docx
- Submit your assignment via INF20029 Canvas> Assignments > Assignment 1

Assignment Specifications

The **Awesome Vacations Travel Service (AVTS)** is an online travel service that books spring break trips to resorts for college students. Students have booked spring break trips for decades, but changes in technology have transformed the travel business in recent years. AVTS moved away from having campus reps with posted fliers and moved to the Web early on. The basic idea is to get a group of students to book a room at a resort for one of the traditional spring break weeks. AVTS contracts with dozens of resorts in key spring break destinations like Florida, Texas, the Caribbean, and Mexico. Its Web site shows information on each resort and includes prices, available rooms, and special features. Students can research and book a room, enter contract information, and pay deposits and final payments through the system. AVTS provides updated booking information, resort information updates, and travel information for booked students when they log in to the site. The resorts also need access to information from AVTS. They need to know about their bookings for each week, the room types that are booked, and so forth. Before the spring break booking season starts, they need to enter information on their resorts, including prices and special features. Resorts need to be paid by AVTS for the bookings, and they need to be able to report and collect for damages caused by spring breakers during their stay. AVTS has recently decided to upgrade its system to provide social networking features for students. It is currently researching possibilities and collecting information from prospective customers about desirable features and functions. From the business standpoint, the idea is to increase bookings by enhancing the experience before, during, and after the trip.

Assignment Tasks:

This assignment will be divided into two main parts A and B.

Part A: Will focus on defining the stakeholders, how to elicit requirements as well as identify some functional and non-functional requirements. You will also be required to provide recommendations (with evidence) for further developments of AVTS' information system.

Part B: Will focus on the technical and data requirements of the product, including creating an events table, a use case diagram, a context diagram, DFD fragments and an ERD diagram.

Please follow a standard report writing format and structure.

Part A:

Answer the following questions with clear statements and evidence.

1. Who are the stakeholders for AVTS? For each type of stakeholder, what aspects of the AVTS booking system are of particular interest?
2. If you were the lead analyst for AVTS, what are some techniques you might use to collect information on functional requirements for the social networking subsystem? Be specific and include some sample questions you might ask by using various techniques.
3. What are the main functional requirements for the major subsystem areas (i.e., resort relations, student booking, accounting and finance, and social networking)?
4. What are some security requirements? Is there any reason why students in Europe, Asia, or other locations could not book rooms through AVTS? What issues might be anticipated?
5. Briefly describe some possible other non-functional requirements for AVTS.
6. By doing some literature research, provide a brief argument with evidence (references) to persuade the managers at AVTS on which emerging IT trends they should focus for future versions of their AVTS information system.

Part B:

Awesome Vacations Travel Service (AVTS) includes many use cases that make up the functional requirements. Consider the following description of the Booking subsystem. A few weeks before Thanksgiving break, it is time to open the system to new bookings. Students usually want to browse through the resorts and do some planning. When a student or group of students wants to book a trip, the system allows it. Sometimes, a student needs to be added or dropped from the group or a group changes size and needs a different type of room. One month before the actual trip, it is time for the system to send out final payment requirement notices. Students cancel the booking or they pay their final bills. Students often want to look up their booking status and check on resort details. When they arrive at the resort, they need to check in; and when they leave, they need to check out.

Please use the appropriate modelling tools (Visio or similar) to complete the requirements.

1. Using the event decomposition technique for each event you identify in the description here, name the event, state the type of event, and name the resulting use case.
2. Consider the new Social Networking subsystem that AVTS is researching. Think in terms of the user goal technique to identify as many use cases as you can think of that you would like to have in the system. AVTS is guessing you might want to join, send messages, and so forth, but there must be many interesting and useful things the system could do before, during, and after the trip. Draw a use case diagram for these use cases.
3. Develop the related context diagram.
4. Based on the information so far, develop DFD fragments for the following use cases.

    a. Book student group
    b. Display booking details
    c. Update reservation info (checkin)

Focusing on the Social Networking subsystem AVTS is researching, let us assume you were thinking about a number of potential domain classes that might be involved. For example, there would need to be information about a traveller attending a resort for a particular week. The traveller would be assigned to a room along with roommates but might also be connected to other friends. There might be different interests or hobbies a traveller can associate with in the hopes of connecting to others. The resort has many locations where a traveller might be hanging out at any given time, and a traveller can note whether the location is "liked." People might schedule a party at a location and invite specific friends.

5. For the Social Networking subsystem as described here, list the domain classes and their attributes that should be included in the Social Networking subsystem. Be creative and add those you think should be included to make the system useful and appealing. Develop a complete ERD for the identified entities and relationships. The ERD must show correct cardinalities as well as entity attributes.

Submission Requirements

The submission must be your own work, that is, it must be the result of your own readings, thoughts and discussion, and the expression of the ideas must be yours. Editorial assistance is permitted but should be limited to such matters as assistance with grammar and syntax, and suggestions for improving clarity of expression.

***IMPORTANT**: Plagiarism – the action or practice of taking and using as one's own, the thoughts, writings or other work of someone else – is not condoned by the University and severe penalties will be imposed where plagiarism is detected. Examples of plagiarism range from copying a passage from a book or another person's assignment without appropriate acknowledgement, using another student's computer program, or submitting identical assignments.

ALL SUBMISSIONS WILL BE CHECKED THOROUGHLY FOR PLAGIARISM. ANY INSTANCE OF PLAGIARISM DETECTED MAY LEAD TO SEVERE ACADEMIC PENALTIES