**Case Study: HAPPY HOLIDAYS**

**Assignment 1 (two parts assessing design stages)**

**Part 1(20%) week 5: Database Analysis and Design**

**Case Study: Happy Holidays**

Happy Holidays (HH) is a Caravan Park operator who has employed you to develop an Information System to manage caravan bookings and people working at each site.

The capacity of the sites range ranges between 30 and 150 caravans. Currently they exist in 3 locations in North of England and are planning to open parks in the South of England and Scotland in future.

The parks are run by Happy Holidays staff (front desk, estate staff and cleaner). Each site has a mixture of caravans which can be rented by owners or customers for a minimum of 7 days, some are owned by Happy Holidays and the rest by private owners. Caravan owners are expected to pay an annual ground rent for their pitch (caravan pitch). Each owner is dealt with by a Happy Holidays Owners Manager at the site. It is not unusual for an owner to have more than one caravan, usually at different sites. Caravans owned by HH for rent belong to one for the following category: bronze, silver, gold etc… Each category will have a different rental tariff which shows the different prices depending on the time of the year.

Caravan Park sites and caravans vary, in the facilities they offer and are priced accordingly. For example, caravans will have different number of berths (beds); some have satellite TV and DVD players, etc…Sites are graded according to their facilities e.g. swimming pool, restaurants, baby-listening, and fishing.

The Happy Holidays system is used to keep track of bookings made by customers. Bookings are taken by phone or on-line when facilities are matched to customer requirements so that the most appropriate caravan can be allocated.

Customers pay a 20% deposit at the time of booking and the remaining balance is due 4 weeks before the holiday date. Deposits are lost in this last month if the balance has not been paid or if the customer cancels holiday 4 days before holiday starts.

Happy Holidays management are aware of the amount of data they are holding in the booking system and believe that this could be used to produce some good reports for management.

EXAMPLE OF REPORTS:

* To be able to retrieve records of total number of staff at a specific location.
* To be able to list all customers staying in a particular caravan in the past year.
* To be able to list facilities each caravan site has to offer.
* To be able to identify the most popular caravan site and or pitch.
* To be able to calculate the total of the “lost” deposits per month.
* To be able to identify customers who have their caravans at more than one site.

The following are your assessment tasks:

1) Applying the top down modeling approach, produce an Extended Entity Relationship Diagram (EERD) (use QSEE) for the given requirements above. State clearly any assumptions you have made.  **[10 marks]**

2) Normalise the form given in Appendix 1, using a bottom-up approach. Use the Normalisation pro-forma given in Appendix 3. **[5 marks]**

3) Produce a Composite EERM (combining the outputs from tasks 1 & 2), including EERD, list of attributes and attributes definitions, identifiers, occurrences and entity definitions. **[5 marks]**